

Application of SOUTHERN CALIFORNIA GAS)
COMPANY for authority to update its gas revenue)
requirement and base rates)
effective January 1, 2024 (U 904-G))

Application No. 22-05-015

Exhibit No.: (SCG-10-WP-R)

REVISED WORKPAPERS TO
PREPARED DIRECT TESTIMONY
OF LAWRENCE T. BITTLESTON / STEVE A. HRUBY
ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

AUGUST 2022



**2024 General Rate Case - REVISED
INDEX OF WORKPAPERS**

Exhibit SCG-10-WP-R - GAS STORAGE

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Overall Summary For Exhibit No. SCG-10-WP-R

Area:	GAS STORAGE
Witness:	Lawrence T. Bittleston

Description	In 2021 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Non-Shared Services	43,106	44,857	46,278	47,443
Shared Services	367	339	339	339
Total	43,473	45,196	46,617	47,782

Note: Totals may include rounding differences.

Southern California Gas Company
 2024 GRC - REVISED
 Non-Shared Service Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston

Summary of Non-Shared Services Workpapers:

Description	In 2021 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
A. Underground Storage	6,685	4,587	4,735	4,888
B. Aboveground Storage	36,421	40,270	41,543	42,555
Total	43,106	44,857	46,278	47,443

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
Witness: Lawrence T. Bittleston
Category: A. Underground Storage
Workpaper: 2US000.000

Summary for Category: A. Underground Storage

	In 2021\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Labor	951	610	639	669
Non-Labor	5,735	3,977	4,096	4,219
NSE	0	0	0	0
Total	6,686	4,587	4,735	4,888
FTE	6.4	5.8	5.8	5.8

Workpapers belonging to this Category:

2US000.000 Underground Storage

Labor	951	610	639	669
Non-Labor	5,735	3,977	4,096	4,219
NSE	0	0	0	0
Total	6,686	4,587	4,735	4,888
FTE	6.4	5.8	5.8	5.8

Note: Totals may include rounding differences.

Beginning of Workpaper
2US000.000 - Underground Storage

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: A. Underground Storage
 Category-Sub: 1. Underground Storage
 Workpaper: 2US000.000 - Underground Storage

Activity Description:

Underground storage is responsible for area from well head to bottom of the well. Storage Operations covers the supervision, engineering, and operational costs associated with the operation of the underground storage fields. Activities associated with these costs include: reservoir engineering studies; well testing and pressure surveys; turning wells on and off; activities associated with maintaining and patrolling storage pipelines, valves, drips, measurement and regulation equipment, wells, wellheads and well cellars; operating and maintaining compressor station equipment; purifying, dehydrating and conditioning natural gas processed through the storage operations; royalty payments associated with well and field locations; supervisory and engineering expenses; compliance to environmental and air quality regulations; ongoing safety and technical training for operations personnel.

Forecast Explanations:

Labor - Zero-Based

The labor portion of this estimate reflects a zero-based forecast methodology. This is because of increased compliance work and due to the variability in work associated with Gas Storage Operations. It is based on both the on-site field personnel and business support related to Gas Storage operations and projects.

Non-Labor - Zero-Based

Due to the variability in work associated with Gas Storage operations a zero-based methodology was used. The forecast is based on knowledge of experienced personnel at the storage fields and quotes for necessary materials and equipment.

NSE - Zero-Based

n/a

Summary of Results:

		In 2021\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2017	2018	2019	2020	2021	2022	2023	2024	
Labor		1,753	1,479	1,028	849	951	610	639	669	
Non-Labor		4,242	2,875	2,612	3,721	5,735	3,977	4,096	4,219	
NSE		0	0	0	0	0	0	0	0	
Total		5,995	4,354	3,640	4,570	6,685	4,587	4,735	4,888	
FTE		12.0	10.9	8.6	5.9	6.4	5.8	5.8	5.8	

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: A. Underground Storage
 Category-Sub: 1. Underground Storage
 Workpaper: 2US000.000 - Underground Storage

Summary of Adjustments to Forecast:

In 2021 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	Zero-Based	0	0	0	610	639	669	610	639	669
Non-Labor	Zero-Based	0	0	0	3,977	4,096	4,219	3,977	4,096	4,219
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
Total		0	0	0	4,587	4,735	4,888	4,587	4,735	4,888
FTE	Zero-Based	0.0	0.0	0.0	5.8	5.8	5.8	5.8	5.8	5.8

Forecast Adjustment Details:

Year	Labor	NLbr	NSE	Total	FTE	Adj Type
2022	610	3,977	0	4,587	5.8	1-Sided Adj
Explanation:	Inputting Zero Based Forecast based historical avg costs and what is needed to provide safe and reliable service. Years 2022, 2023 & 2024 all have the same RAMP attributes and to avoid multiple inputting of RAMP attributes year 2022 is the only year inputting the attributes					
2022 Total	610	3,977	0	4,587	5.8	
2023	639	4,096	0	4,735	5.8	1-Sided Adj
Explanation:	Inputting Zero Based Forecast based historical avg costs and what is needed to provide safe and reliable service.					
2023 Total	639	4,096	0	4,735	5.8	
2024	669	4,219	0	4,888	5.8	1-Sided Adj
Explanation:	Inputting Zero Based Forecast based historical avg costs and what is needed to provide safe and reliable service					
2024 Total	669	4,219	0	4,888	5.8	

Note: Totals may include rounding differences.

SCG/GAS STORAGE/Exh No:SCG-10-WP-R/Witness: L. Bittleston

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
Witness: Lawrence T. Bittleston
Category: A. Underground Storage
Category-Sub: 1. Underground Storage
Workpaper: 2US000.000 - Underground Storage

Determination of Adjusted-Recorded (Incurred Costs):

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	1,156	979	815	701	808
Non-Labor	3,757	3,234	2,437	3,502	5,786
NSE	0	0	0	0	0
Total	4,913	4,212	3,251	4,202	6,594
FTE	8.9	7.6	6.1	4.9	5.4
Adjustments (Nominal \$) **					
Labor	188	183	4	0	0
Non-Labor	13	-598	0	-45	-51
NSE	0	0	0	0	0
Total	201	-414	4	-45	-51
FTE	1.3	1.8	1.1	0.1	0.0
Recorded-Adjusted (Nominal \$)					
Labor	1,344	1,162	818	701	808
Non-Labor	3,770	2,636	2,437	3,457	5,735
NSE	0	0	0	0	0
Total	5,114	3,798	3,255	4,158	6,543
FTE	10.2	9.3	7.2	5.0	5.4
Vacation & Sick (Nominal \$)					
Labor	228	200	155	124	143
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	228	200	155	124	143
FTE	1.8	1.6	1.4	0.9	1.0
Escalation to 2021\$					
Labor	181	116	55	25	0
Non-Labor	473	239	176	264	0
NSE	0	0	0	0	0
Total	654	355	230	289	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2021\$)					
Labor	1,753	1,479	1,028	849	951
Non-Labor	4,242	2,875	2,612	3,721	5,735
NSE	0	0	0	0	0
Total	5,995	4,354	3,640	4,570	6,685
FTE	12.0	10.9	8.6	5.9	6.4

* 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.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
Witness: Lawrence T. Bittleston
Category: A. Underground Storage
Category-Sub: 1. Underground Storage
Workpaper: 2US000.000 - Underground Storage

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2017	2018	2019	2020	2021
Labor	188	183	4	0.170	0
Non-Labor	13	-598	0.137	-45	-51
NSE	0	0	0	0	0
Total	201	-414	4	-45	-51
FTE	1.3	1.8	1.1	0.1	0.0

Detail of Adjustments to Recorded:

Year	Labor	NLbr	NSE	FTE	Adj Type
2017	156	5	0	1.1	CCTR Transf From 2200-2595.000
Explanation:	Costs associated with support for UGS Field Maintenance activity, which is a non-SIMP activity.				
2017	31	8	0	0.2	CCTR Transf From 2200-2601.000
Explanation:	Costs associated with support for UGS Field Maintenance activity, which is a non-SIMP activity.				
2017 Total	188	13	0	1.3	
2018	0	-10	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2018	102	9	0	1.1	CCTR Transf From 2200-2595.000
Explanation:	Costs associated with support for UGS Field Maintenance activity, which is a non-SIMP activity.				
2018	0	8	0	-0.1	CCTR Transf From 2200-2601.000
Explanation:	Costs associated with support for UGS Field Maintenance activity, which is a non-SIMP activity.				
2018	82	9	0	0.8	CCTR Transf From 2200-2631.000
Explanation:	Costs associated with support for UGS Field Maintenance activity, which is a non-SIMP activity.				
2018	0	-614	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2018 Total	183	-598	0	1.8	
2019	2	0	0	0.6	CCTR Transf From 2200-2595.000
Explanation:	Costs associated with support for UGS Field Maintenance activity, which is a non-SIMP activity.				
2019	0	0	0	0.0	CCTR Transf From 2200-2601.000
Explanation:	Costs associated with support for UGS Field Maintenance activity, which is a non-SIMP activity.				
2019	2	0	0	0.5	CCTR Transf From 2200-2631.000

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: A. Underground Storage
 Category-Sub: 1. Underground Storage
 Workpaper: 2US000.000 - Underground Storage

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>
Explanation:	Costs associated with support for UGS Field Maintenance activity, which is a non-SIMP activity.				
2019 Total	4	0	0	1.1	
2020	0	-33	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	-1	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	-9	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	0	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	-1	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	0	0	0.1	CCTR Transf From 2200-0733.000
Explanation:	Moving Aliso shallow zone labor to correct witness area				
2020 Total	0	-45	0	0.1	
2021	0	-40	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	0	-2	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	0	-8	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	0	0	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	0	-1	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
Witness: Lawrence T. Bittleston
Category: A. Underground Storage
Category-Sub: 1. Underground Storage
Workpaper: 2US000.000 - Underground Storage

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>
2021 Total	0	-51	0	0.0	

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: A. Underground Storage
 Category-Sub: 1. Underground Storage
 Workpaper: 2US000.000 - Underground Storage

RAMP Item # 1

RAMP Activity

RAMP Chapter: SCG-Risk-4 Incident Related to the Storage System (Excluding Dig-in)

RAMP Line Item ID: C05

RAMP Line Item Name: Storage Field Maintenance

Tranche(/s): Tranche1: Underground Components

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost (2021 \$)	2022 Forecast (2021 \$)	2023 Forecast (2021 \$)	2024 Forecast (2021 \$)	2024 RAMP Range (2020 Incurred \$)	
					Low	High
Tranche 1 Cost Estimate	5,143	4,587	4,735	4,888	33,599	40,672

Cost Estimate Changes from RAMP:
na

GRC Work Unit/Activity Level Estimates

Unit of Measure	2021 Historical Embedded Activities	2022 Forecast Activities	2023 Forecast Activities	2024 Forecast Activities	2024 RAMP Range Activities	
					Low	High
Tranche 1 # of Storage Fields	4.00	4.00	4.00	4.00	4.00	4.00

Work Unit Changes from RAMP:
na

Risk Spend Efficiency (RSE)

	GRC RSE	RAMP RSE
Tranche 1	116.000	35.100

RSE Changes from RAMP:
na

Supplemental Workpapers for Workpaper 2US000.000

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Witness: Larry Bittleston
Category: Storage (AGS/UGS)

Forecast Method		Forecast		
<i>Constant 2021 \$ in 000s</i>		2022	2023	2024
Labor	Zero-Based	\$21,937	\$22,606	\$23,295
Non-Labor	Zero-Based	\$22,920	\$23,673	\$24,148
NSE	Zero-Based			
Total		\$44,857	\$46,279	\$47,443
FTE	Zero-Based	163.1	163.1	163.1

Witness: Larry Bittleston
Workpaper: 2US000.000 – Underground Storage
Category: Underground Storage

Forecast Method		Forecast		
<i>Constant 2021 \$ in 000s</i>		2022	2023	2024
Labor	Zero-Based	\$610	\$639	\$669
Non-Labor	Zero-Based	\$3,977	\$4,096	\$4,219
NSE	Zero-Based			
Total		\$4,587	\$4,735	\$4,888
FTE	Zero-Based	5.8	5.8	5.8

Activity Description:

Storage Operations is responsible for the safe, efficient, and economical operation of the underground natural gas storage facilities for SoCalGas. This work paper covers the supervision, engineering, and operational costs associated with the operation of the underground storage fields. Activities associated with these costs include: reservoir engineering studies; well testing and pressure surveys; turning wells on and off; activities associated with maintaining and patrolling storage pipelines, valves, drips, measurement and regulation equipment, wells, wellheads and well cellars; operating and maintaining compressor station equipment; purifying, dehydrating and conditioning natural gas processed through the storage operations; royalty payments associated with well and field locations; supervisory and engineering expense; compliance to environmental and air quality regulations; ongoing safety and technical training for operations personnel. Underground storage is responsible for area from well head to bottom of the well.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
Witness: Lawrence T. Bittleston
Category: B. Aboveground Storage
Workpaper: 2US001.000

Summary for Category: B. Aboveground Storage

	In 2021\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Labor	19,173	21,327	21,967	22,626
Non-Labor	17,248	18,943	19,576	19,929
NSE	0	0	0	0
Total	36,421	40,270	41,543	42,555
FTE	161.8	159.3	160.3	161.3

Workpapers belonging to this Category:

2US001.000 Aboveground Storage

Labor	19,173	21,327	21,967	22,626
Non-Labor	17,248	18,943	19,576	19,929
NSE	0	0	0	0
Total	36,421	40,270	41,543	42,555
FTE	161.8	159.3	160.3	161.3

Note: Totals may include rounding differences.

Beginning of Workpaper
2US001.000 - Aboveground Storage

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: B. Aboveground Storage
 Category-Sub: 1. Aboveground Storage
 Workpaper: 2US001.000 - Aboveground Storage

Activity Description:

Aboveground storage is responsible for area above ground at the storage fields. Storage Operations covers the supervision, engineering, and operational costs associated with the operation of the above and underground storage fields. Activities associated with these costs include: reservoir engineering studies; well testing and pressure surveys; turning wells on and off; activities associated with maintaining and patrolling storage pipelines, valves, drips, measurement and regulation equipment, wells, wellheads and well cellars; operating and maintaining compressor station equipment; purifying, dehydrating and conditioning natural gas processed through the storage operations; royalty payments associated with well and field locations; supervisory and engineering expense; compliance to environmental and air quality regulations; ongoing safety and technical training for operations personnel.

Forecast Explanations:

Labor - Zero-Based

The labor portion of this estimate reflects a zero-based forecast methodology. This is because of increased compliance work and due to the variability in work associated with Gas Storage Operations. It is based on both the on-site field personnel and business support related to Gas Storage operations and projects.

Non-Labor - Zero-Based

Due to the variability in work associated with Gas Storage operations a zero-based methodology is used. The forecast is based on knowledge of experienced personnel at the storage fields and quotes for necessary materials and equipment.

NSE - Zero-Based

N/A

Summary of Results:

		In 2021\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2017	2018	2019	2020	2021	2022	2023	2024	
Labor		16,842	16,563	18,039	18,672	19,173	21,327	21,967	22,626	
Non-Labor		16,551	15,689	15,288	24,138	17,248	18,943	19,576	19,929	
NSE		0	0	0	0	0	0	0	0	
Total		33,393	32,252	33,327	42,810	36,421	40,270	41,543	42,555	
FTE		144.1	139.2	152.3	155.8	161.8	159.3	160.3	161.3	

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: B. Aboveground Storage
 Category-Sub: 1. Aboveground Storage
 Workpaper: 2US001.000 - Aboveground Storage

Summary of Adjustments to Forecast:

In 2021 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	Zero-Based	0	0	0	21,327	21,967	22,626	21,327	21,967	22,626
Non-Labor	Zero-Based	0	0	0	18,943	19,576	19,929	18,943	19,576	19,929
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
Total		0	0	0	40,270	41,543	42,555	40,270	41,543	42,555
FTE	Zero-Based	0.0	0.0	0.0	159.3	160.3	161.3	159.3	160.3	161.3

Forecast Adjustment Details:

Year	Labor	NLbr	NSE	Total	FTE	Adj Type
2022	0	80	0	80	0.0	1-Sided Adj
Explanation:	Input Zero Based Forecast based on historacal avg's costs and what is needed to ensure safe reliable servie. Years 2022, 2023 and 2024 all have same RAMP attributes year 2022 is the only year inputting the attributes.					
2022	21,327	18,863	0	40,190	159.3	1-Sided Adj
Explanation:	Input Zero Based Forecast based on historical avg's costs and what is needed to ensure safe reliable service. Years 2022, 2023 and 2024 all have the same RAMP attributes and to avoid multiple inputting of RAMP attributes year 2022 is the only year inputting the attributes.					
2022 Total	21,327	18,943	0	40,270	159.3	
2023	21,967	19,496	0	41,463	160.3	1-Sided Adj
Explanation:	Input Zero-Based forecast based on historical avg's costs and what is needed to provide safe and reliable service.					
2023	0	80	0	80	0.0	1-Sided Adj
Explanation:	Input Zero-Based forecast based on historical avg's costs and what is needed to provide safe and reliable service					
2023 Total	21,967	19,576	0	41,543	160.3	
2024	22,626	19,849	0	42,475	161.3	1-Sided Adj
Explanation:	Input Zero-Based forecast based historical avg's costs and what is needed to provide safe and reliable service.					
2024	0	80	0	80	0.0	1-Sided Adj
Explanation:	Input Zero-Based forecast based on historical avg's costs and what is needed to provide safe and reliable service.					
2024 Total	22,626	19,929	0	42,555	161.3	

Note: Totals may include rounding differences.

SCG/GAS STORAGE/Exh No:SCG-10-WP-R/Witness: L. Bittleston

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
Witness: Lawrence T. Bittleston
Category: B. Aboveground Storage
Category-Sub: 1. Aboveground Storage
Workpaper: 2US001.000 - Aboveground Storage

Determination of Adjusted-Recorded (Incurred Costs):

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	12,933	13,087	14,425	15,532	16,097
Non-Labor	14,882	14,473	14,771	26,795	16,822
NSE	0	0	0	0	0
Total	27,815	27,559	29,196	42,326	32,919
FTE	122.6	118.6	128.0	131.1	134.2
Adjustments (Nominal \$) **					
Labor	-19	-67	-66	-115	200
Non-Labor	-175	-89	-511	-4,370	426
NSE	0	0	0	0	0
Total	-195	-156	-577	-4,486	626
FTE	-0.2	-0.5	-0.5	-0.9	1.9
Recorded-Adjusted (Nominal \$)					
Labor	12,914	13,020	14,359	15,416	16,297
Non-Labor	14,707	14,384	14,261	22,425	17,248
NSE	0	0	0	0	0
Total	27,621	27,404	28,619	37,841	33,545
FTE	122.4	118.1	127.5	130.2	136.1
Vacation & Sick (Nominal \$)					
Labor	2,189	2,241	2,722	2,716	2,876
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	2,189	2,241	2,722	2,716	2,876
FTE	21.7	21.1	24.8	25.6	25.7
Escalation to 2021\$					
Labor	1,740	1,302	958	540	0
Non-Labor	1,844	1,305	1,027	1,714	0
NSE	0	0	0	0	0
Total	3,584	2,607	1,985	2,253	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2021\$)					
Labor	16,842	16,563	18,039	18,672	19,173
Non-Labor	16,551	15,689	15,288	24,138	17,248
NSE	0	0	0	0	0
Total	33,393	32,252	33,327	42,810	36,421
FTE	144.1	139.2	152.3	155.8	161.8

* 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.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
Witness: Lawrence T. Bittleston
Category: B. Aboveground Storage
Category-Sub: 1. Aboveground Storage
Workpaper: 2US001.000 - Aboveground Storage

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2017	2018	2019	2020	2021
Labor	-19	-67	-66	-115	200
Non-Labor	-175	-89	-511	-4,370	426
NSE	0	0	0	0	0
Total	-195	-156	-577	-4,486	626
FTE	-0.2	-0.5	-0.5	-0.9	1.9

Detail of Adjustments to Recorded:

Year	Labor	NLbr	NSE	FTE	Adj Type
2017	-9	0	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2017	-10	-9	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2017	0	-166	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2017	0	0	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2017 Total	-19	-175	0	-0.2	
2018	-5	0	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2018	0	6	0	0.0	CCTR Transf From 2200-2601.000
Explanation:	Costs associated with support for the Storage Monitoring Program, which is not a SIMP program.				
2018	0	6	0	0.0	CCTR Transf From 2200-2601.000
Explanation:	Costs incurred for AGS activity (pressure monitoring)				
2018	4	-1	0	0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2018	-66	-92	0	-0.5	1-Sided Adj

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: B. Aboveground Storage
 Category-Sub: 1. Aboveground Storage
 Workpaper: 2US001.000 - Aboveground Storage

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2018	0	-2	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2018	0	-6	0	0.0	CCTR Transf From 2200-2601.000
Explanation:	Adjustment to offset a duplicate transfer.				
2018	0	0	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2018 Total	-67	-89	0	-0.5	
2019	0	-25	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2019	0	3	0	0.0	CCTR Transf From 2200-2601.000
Explanation:	Costs associated with support for the Storage Monitoring Program, which is not a SIMP program.				
2019	0	3	0	0.0	CCTR Transf From 2200-2601.000
Explanation:	Costs incurred for AGS activity (pressure monitoring)				
2019	-15	-8	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2019	0	-114	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2019	-15	-1	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2019	0	-3	0	0.0	CCTR Transf From 2200-2601.000
Explanation:	Adjustment to offset a duplicate transfer.				
2019	-31	-28	0	-0.2	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2019	-4	-330	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: B. Aboveground Storage
 Category-Sub: 1. Aboveground Storage
 Workpaper: 2US001.000 - Aboveground Storage

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>
2019	0	-5	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2019	0	0	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2019	0	-16	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2019	0	14	0	0.0	CCTR Transf To 2200-8000.002
Explanation:	Transfer of benefits costs (cost element 6125002, EXEC-BEN LT INCENT and order 300362207) to the compensation witness.				
2019 Total	-66	-511	0	-0.5	
2020	0	-618	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	0	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	2	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	-1	0	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	-5	-39	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	1	0	0.0	CCTR Transf From 2200-2601.000
Explanation:	Costs associated with support for the Storage Monitoring Program, which is not a SIMP program.				
2020	0	1	0	0.0	CCTR Transf From 2200-2601.000
Explanation:	Costs incurred for AGS activity (pressure monitoring)				
2020	1	-584	0	0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: B. Aboveground Storage
 Category-Sub: 1. Aboveground Storage
 Workpaper: 2US001.000 - Aboveground Storage

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>
2020	0	-465	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	-9	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	-1	0	0.0	CCTR Transf From 2200-2601.000
Explanation:	Adjustment to offset a duplicate transfer.				
2020	0	-1	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	-23	-576	0	-0.1	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	-2	-14	0	-0.1	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	-22	-552	0	-0.1	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	-21	-506	0	-0.1	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	-2	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	-12	-518	0	-0.1	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	-25	-433	0	-0.1	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	-1	-9	0	-0.1	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	-2	0	0.0	1-Sided Adj

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: B. Aboveground Storage
 Category-Sub: 1. Aboveground Storage
 Workpaper: 2US001.000 - Aboveground Storage

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	-35	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	-5	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	-8	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	0	0	0.0	CCTR Transf To 2200-2011.002
Explanation:	Transfer costs to GOSI CC 2200-2011.002 related to SB1371 (BLM) Emissions Strategy Program				
2020	0	-1	0	0.0	CCTR Transf To 2200-2011.002
Explanation:	Transfer costs to GOSI CC 2200-2011.002 related to SB1371 (BLM) Emissions Strategy Program				
2020	-3	0	0	-0.1	CCTR Transf To 2200-2011.002
Explanation:	Transfer costs to GOSI CC 2200-2011.002 related to SB1371 (BLM) Emissions Strategy Program				
2020	0	2	0	0.0	CCTR Transf From 2200-0957.000
Explanation:	Costs for UGS MIT and Tank/Vessel Inspections.				
2020 Total	-115	-4,370	0	-0.9	
2021	0	-37	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	-3	0	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	12	0	0	0.1	CCTR Transf From 2200-2038.000
Explanation:	Transfer from FIMP WKP 2TD004 to base business WKP 2US001; base O&M activity				
2021	205	1,641	0	2.0	CCTR Transf From 2200-2038.000
Explanation:	Transfer from FIMP WKP 2TD004 to base business WKP 2US001; base O&M activity				
2021	0	4	0	0.0	CCTR Transf From 2200-2038.000
Explanation:	Transfer from FIMP WKP 2TD004 to base business WKP 2US001; base O&M activity				
2021	23	0	0	0.2	CCTR Transf From 2200-2038.000
Explanation:	Transfer from FIMP WKP 2TD004 to base business WKP 2US001; base O&M activity				

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: B. Aboveground Storage
 Category-Sub: 1. Aboveground Storage
 Workpaper: 2US001.000 - Aboveground Storage

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>
2021	0	-2	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	0	-1	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	-32	-274	0	-0.2	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	0	-41	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	0	-210	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	-5	-187	0	-0.1	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	0	-3	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	0	-274	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	0	-96	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	0	-30	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	0	-10	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	0	-47	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: B. Aboveground Storage
 Category-Sub: 1. Aboveground Storage
 Workpaper: 2US001.000 - Aboveground Storage

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>
2021	0	-2	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	0	-5	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021	0	-1	0	0.0	1-Sided Adj
Explanation:	Adjustment to remove non-GRC costs related to the SB1371 Emissions Strategy Program that are being recovered through a separate regulatory process.				
2021 Total	200	426	0	1.9	

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: B. Aboveground Storage
 Category-Sub: 1. Aboveground Storage
 Workpaper: 2US001.000 - Aboveground Storage

RAMP Item # 1

RAMP Activity

RAMP Chapter: SCG-Risk-4 Incident Related to the Storage System (Excluding Dig-in)

RAMP Line Item ID: C05

RAMP Line Item Name: Storage Field Maintenance

Tranche(s): Tranche1: Above Ground Facilities - Storage Field Maintenance; Tranche2: Above Ground Piping - Storage Field Maintenance Piping

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost (2021 \$)	2022 Forecast (2021 \$)	2023 Forecast (2021 \$)	2024 Forecast (2021 \$)	2024 RAMP Range (2020 Incurred \$)	
					Low	High
Tranche 1 Cost Estimate	3,217	36,566	37,724	38,645	33,599	40,672
Tranche 2 Cost Estimate	3,182	3,624	3,739	3,830	1,196	1,447

Cost Estimate Changes from RAMP:

Breakout between tranche 1 and 2 was 91% / 9% based on 2021 actuals. Tranche 3 is RAMP Risk #5, C10 Workplace violence Prevention Programs.

GRC Work Unit/Activity Level Estimates

Unit of Measure	2021 Historical Embedded Activities	2022 Forecast Activities	2023 Forecast Activities	2024 Forecast Activities	2024 RAMP Range Activities	
					Low	High
Tranche 1 # of Storage Fields	4.00	4.00	4.00	4.00	4.00	4.00
Tranche 2 # of Storage Fields	4.00	4.00	4.00	4.00	0.00	0.00

Work Unit Changes from RAMP:

na

Risk Spend Efficiency (RSE)

	GRC RSE	RAMP RSE
Tranche 1	1.000	35.100
Tranche 2	10.000	35.100

RSE Changes from RAMP:

na

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: B. Aboveground Storage
 Category-Sub: 1. Aboveground Storage
 Workpaper: 2US001.000 - Aboveground Storage

RAMP Item # 2

RAMP Activity

RAMP Chapter: SCG-Risk-5 Incident Involving an Employee
 RAMP Line Item ID: C10
 RAMP Line Item Name: Workplace Violence Prevention Programs
 Tranche(/s): Tranche1: Non-Vehicle Incident

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost (2021 \$)	2022 Forecast (2021 \$)	2023 Forecast (2021 \$)	2024 Forecast (2021 \$)	2024 RAMP Range (2020 Incurred \$)	
					Low	High
Tranche 1 Cost Estimate	80	80	80	80	1,196	1,447

Cost Estimate Changes from RAMP:
xx

GRC Work Unit/Activity Level Estimates

Unit of Measure	2021 Historical Embedded Activities	2022 Forecast Activities	2023 Forecast Activities	2024 Forecast Activities	2024 RAMP Range Activities	
					Low	High
Tranche 1 # of FTEs	1.00	1.00	1.00	1.00	28.00	32.00

Work Unit Changes from RAMP:
xx

Risk Spend Efficiency (RSE)

	GRC RSE	RAMP RSE
Tranche 1	591.000	496.000

RSE Changes from RAMP:
xx

Supplemental Workpapers for Workpaper 2US001.000

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Witness: Larry Bittleston
Category: Storage (AGS/UGS)

Forecast Method		Forecast		
<i>Constant 2021 \$ in 000s</i>		2022	2023	2024
Labor	Zero-Based	\$21,937	\$22,602	\$23,295
Non-Labor	Zero-Based	\$22,920	\$23,673	\$24,148
NSE	Zero-Based			
Total		\$44,857	\$46,279	\$47,443
FTE	Zero-Based	163.1	163.1	163.1

Witness: Larry Bittleston
Workpaper: 2US001.000 – Aboveground Storage
Category: Aboveground Storage

Forecast Method		Forecast		
<i>Constant 2021 \$ in 000s</i>		2022	2023	2024
Labor	Zero-Based	\$21,327	\$21,967	\$22,626
Non-Labor	Zero-Based	\$18,943	\$19,576	\$19,929
NSE	Zero-Based			
Total		\$40,270	\$41,543	\$42,554
FTE	Zero-Based	157.3	157.3	157.3

Activity Description:

Storage Operations is responsible for the safe, efficient, and economical operation of the underground natural gas storage facilities for SoCalGas. This work paper covers the supervision, engineering, and operational costs associated with the operation of the underground storage fields. Activities associated with these costs include: reservoir engineering studies; well testing and pressure surveys; turning wells on and off; activities associated with maintaining and patrolling storage pipelines, valves, drips, measurement and regulation equipment, wells, wellheads and well cellars; operating and maintaining compressor station equipment; purifying, dehydrating and conditioning natural gas processed through the storage operations; royalty payments associated with well and field locations; supervisory and engineering expense; supervisory control and data acquisition; compliance to environmental and air quality regulations; ongoing safety and technical training for operations personnel. In 2022 AGS added 4 incremental vehicles. Aboveground storage is responsible for area above ground at the storage fields.

Southern California Gas Company
 2024 GRC - REVISED
 Shared Services Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston

Summary of Shared Services Workpapers:

Description	In 2021 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
A. VP Transmission & Storage	367	339	339	339
Total	367	339	339	339

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Shared Services Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: A. VP Transmission & Storage
 Cost Center: 2200-2629.000

Summary for Category: A. VP Transmission & Storage

	In 2021\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Labor	350	317	317	317
Non-Labor	17	21	21	21
NSE	0	0	0	0
Total	<u>367</u>	<u>338</u>	<u>338</u>	<u>338</u>
FTE	1.5	1.3	1.3	1.3

Cost Centers belonging to this Category:

2200-2629.000 VP TRANS & STORAGE

Labor	350	317	317	317
Non-Labor	17	21	21	21
NSE	0	0	0	0
Total	<u>367</u>	<u>338</u>	<u>338</u>	<u>338</u>
FTE	1.5	1.3	1.3	1.3

Note: Totals may include rounding differences.

Beginning of Workpaper
2200-2629.000 - VP TRANS & STORAGE

Southern California Gas Company
2024 GRC - REVISED
Shared Services Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: A. VP Transmission & Storage
 Category-Sub: 1. VP Transmission & Storage
 Cost Center: 2200-2629.000 - VP TRANS & STORAGE

Activity Description:

This forecast represents the annual costs for the Vice President of Transmission and Storage cost center established in 2016. It includes technical and financial support, as well as policy issuance to successfully staff the operation.

Forecast Explanations:

Labor - 3-YR Average

3-yr avg which represents the most recent three year historical period and represents the expected annual labor costs.

Non-Labor - 3-YR Average

3 -yr avg which represents the most recent three year historical period and represents the expected annual non labor costs.

NSE - 3-YR Average

Non applicable

Summary of Results:

		In 2021\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2017	2018	2019	2020	2021	2022	2023	2024	
Labor		66	282	290	311	350	317	317	317	
Non-Labor		1	15	8	38	17	20	20	20	
NSE		0	0	0	0	0	0	0	0	
Total		67	296	299	350	367	337	337	337	
FTE		0.2	1.2	1.2	1.2	1.5	1.3	1.3	1.3	

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Shared Services Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: A. VP Transmission & Storage
 Category-Sub: 1. VP Transmission & Storage
 Cost Center: 2200-2629.000 - VP TRANS & STORAGE

Cost Center Allocations (Incurred Costs):

	2021 Adjusted-Recorded					2022 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	4	0	0	4	0.0	1	944	0	945	0.0
Directly Allocated	0	0	0	0	0.0	0	-28	0	-28	0.0
Subj. To % Alloc.	347	17	0	364	1.5	316	-896	0	-580	1.3
Total Incurred	351	17	0	368	1.5	317	20	0	337	1.3
% Allocation										
Retained	90.23%	90.23%				90.23%	90.23%			
SEU	9.77%	9.77%				9.77%	9.77%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

	2023 Adjusted-Forecast					2024 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	1	944	0	945	0.0	1	944	0	945	0.0
Directly Allocated	0	-28	0	-28	0.0	0	-28	0	-28	0.0
Subj. To % Alloc.	316	-896	0	-580	1.3	316	-896	0	-580	1.3
Total Incurred	317	20	0	337	1.3	317	20	0	337	1.3
% Allocation										
Retained	90.23%	90.23%				90.23%	90.23%			
SEU	9.77%	9.77%				9.77%	9.77%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2021

system gas flow thru put

Cost Center Allocation Percentage for 2022

system gas flow thru put

Cost Center Allocation Percentage for 2023

system gas flow thru put

Cost Center Allocation Percentage for 2024

system gas flow thru put

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Shared Services Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: A. VP Transmission & Storage
 Category-Sub: 1. VP Transmission & Storage
 Cost Center: 2200-2629.000 - VP TRANS & STORAGE

Summary of Adjustments to Forecast:

In 2021 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	3-YR Average	317	317	317	0	0	0	317	317	317
Non-Labor	3-YR Average	21	21	21	0	0	0	21	21	21
NSE	3-YR Average	0	0	0	0	0	0	0	0	0
Total		339	339	339	0	0	0	339	339	339
FTE	3-YR Average	1.3	1.3	1.3	0.0	0.0	0.0	1.3	1.3	1.3

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>
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Note: Totals may include rounding differences.

SCG/GAS STORAGE/Exh No:SCG-10-WP-R/Witness: L. Bittleston

Southern California Gas Company
2024 GRC - REVISED
Shared Services Workpapers

Area: GAS STORAGE
Witness: Lawrence T. Bittleston
Category: A. VP Transmission & Storage
Category-Sub: 1. VP Transmission & Storage
Cost Center: 2200-2629.000 - VP TRANS & STORAGE

Determination of Adjusted-Recorded (Incurred Costs):

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	51	222	231	254	298
Non-Labor	1	15	8	269	18
NSE	0	0	0	0	0
Total	52	237	239	523	315
FTE	0.2	1.0	1.0	1.0	1.3
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	-1	0	-232	0
NSE	0	0	0	0	0
Total	0	-1	0	-232	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	51	222	231	254	298
Non-Labor	1	14	8	37	17
NSE	0	0	0	0	0
Total	52	236	239	291	315
FTE	0.2	1.0	1.0	1.0	1.3
Vacation & Sick (Nominal \$)					
Labor	9	38	44	45	53
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	9	38	44	45	53
FTE	0.0	0.2	0.2	0.2	0.2
Escalation to 2021\$					
Labor	6	21	16	13	0
Non-Labor	0	1	0	2	0
NSE	0	0	0	0	0
Total	6	22	16	14	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2021\$)					
Labor	66	282	290	311	350
Non-Labor	1	15	8	38	17
NSE	0	0	0	0	0
Total	67	296	299	350	367
FTE	0.2	1.2	1.2	1.2	1.5

* 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.

Southern California Gas Company
2024 GRC - REVISED
Shared Services Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: A. VP Transmission & Storage
 Category-Sub: 1. VP Transmission & Storage
 Cost Center: 2200-2629.000 - VP TRANS & STORAGE

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2017	2018	2019	2020	2021
Labor	0	0	0	0	0
Non-Labor	0	-1	0	-232	-0.300
NSE	0	0	0	0	0
Total	0	-1	0	-232	-0.300
FTE	0.0	0.0	0.0	0.0	0.0

Detail of Adjustments to Recorded:

Year	Labor	NLbr	NSE	FTE	Adj_Type
2017 Total	0	0	0	0.0	
2018	0	-1	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2018 Total	0	-1	0	0.0	
2019	0	-2,607	0	0.0	SSD_Type Transf FROM CC_Subj
Explanation:	As promised, I ve attached a BW report that shows SoCalGas cost element 6125002 EXEC-BEN LT INCENT and IO 300362207 charges in your witness areas and they're reducing your 2019 Recorded expenses because they're credits!! Some of you appear to have caught some of these, but there are several that haven't been adjusted yet (see column T for notes – some corrections to existing adjustments may be needed). There are a few very small dollars in 2017 & 2018 that you can probably ignore, since they're under our \$5k threshold. Please review the attached file and TRANSFER these NON-LABOR expenses from your witness area/workpaper to the Comp & Benefits witness cost center 2200-8000.002.				
2019	0	2,607	0	0.0	SSD_Type Transf TO IO_Alloc
Explanation:	As promised, I ve attached a BW report that shows SoCalGas cost element 6125002 EXEC-BEN LT INCENT and IO 300362207 charges in your witness areas and they're reducing your 2019 Recorded expenses because they're credits!! Some of you appear to have caught some of these, but there are several that haven't been adjusted yet (see column T for notes – some corrections to existing adjustments may be needed). There are a few very small dollars in 2017 & 2018 that you can probably ignore, since they're under our \$5k threshold. Please review the attached file and TRANSFER these NON-LABOR expenses from your witness area/workpaper to the Comp & Benefits witness cost center 2200-8000.002.				
2019	0	-2,607	0	0.0	SSD_Type Transf TO IO_Alloc

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Shared Services Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: A. VP Transmission & Storage
 Category-Sub: 1. VP Transmission & Storage
 Cost Center: 2200-2629.000 - VP TRANS & STORAGE

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>
Explanation:	As promised, I ve attached a BW report that shows SoCalGas cost element 6125002 EXEC-BEN LT INCENT and IO 300362207 charges in your witness areas and they're reducing your 2019 Recorded expenses because they're credits!! Some of you appear to have caught some of these, but there are several that haven't been adjusted yet (see column T for notes – some corrections to existing adjustments may be needed). There are a few very small dollars in 2017 & 2018 that you can probably ignore, since they're under our \$5k threshold.				
	Please review the attached file and TRANSFER these NON-LABOR expenses from your witness area/workpaper to the Comp & Benefits witness cost center 2200-8000.002.				
2019	0	2,607	0	0.0	SSD_Type Transf FROM IO_Ret
Explanation:	As promised, I ve attached a BW report that shows SoCalGas cost element 6125002 EXEC-BEN LT INCENT and IO 300362207 charges in your witness areas and they're reducing your 2019 Recorded expenses because they're credits!! Some of you appear to have caught some of these, but there are several that haven't been adjusted yet (see column T for notes – some corrections to existing adjustments may be needed). There are a few very small dollars in 2017 & 2018 that you can probably ignore, since they're under our \$5k threshold.				
	Please review the attached file and TRANSFER these NON-LABOR expenses from your witness area/workpaper to the Comp & Benefits witness cost center 2200-8000.002.				
2019	0	26	0	0.0	SSD_Type Transf FROM IO_Ret
Explanation:	As promised, I ve attached a BW report that shows SoCalGas cost element 6125002 EXEC-BEN LT INCENT and IO 300362207 charges in your witness areas and they're reducing your 2019 Recorded expenses because they're credits!! Some of you appear to have caught some of these, but there are several that haven't been adjusted yet (see column T for notes – some corrections to existing adjustments may be needed). There are a few very small dollars in 2017 & 2018 that you can probably ignore, since they're under our \$5k threshold.				
	Please review the attached file and TRANSFER these NON-LABOR expenses from your witness area/workpaper to the Comp & Benefits witness cost center 2200-8000.002.				
2019	0	-26	0	0.0	SSD_Type Transf TO IO_Alloc
Explanation:	As promised, I ve attached a BW report that shows SoCalGas cost element 6125002 EXEC-BEN LT INCENT and IO 300362207 charges in your witness areas and they're reducing your 2019 Recorded expenses because they're credits!! Some of you appear to have caught some of these, but there are several that haven't been adjusted yet (see column T for notes – some corrections to existing adjustments may be needed). There are a few very small dollars in 2017 & 2018 that you can probably ignore, since they're under our \$5k threshold.				
	Please review the attached file and TRANSFER these NON-LABOR expenses from your witness area/workpaper to the Comp & Benefits witness cost center 2200-8000.002.				
2019	0	-26	0	0.0	SSD_Type Transf TO IO_Alloc

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Shared Services Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: A. VP Transmission & Storage
 Category-Sub: 1. VP Transmission & Storage
 Cost Center: 2200-2629.000 - VP TRANS & STORAGE

Year	Labor	NLbr	NSE	FTE	Adj Type
Explanation:	As promised, I ve attached a BW report that shows SoCalGas cost element 6125002 EXEC-BEN LT INCENT and IO 300362207 charges in your witness areas and they're reducing your 2019 Recorded expenses because they're credits!! Some of you appear to have caught some of these, but there are several that haven't been adjusted yet (see column T for notes – some corrections to existing adjustments may be needed). There are a few very small dollars in 2017 & 2018 that you can probably ignore, since they're under our \$5k threshold.				
	Please review the attached file and TRANSFER these NON-LABOR expenses from your witness area/workpaper to the Comp & Benefits witness cost center 2200-8000.002.				
2019	0	26	0	0.0	SSD_Type Transf FROM IO_Ret
Explanation:	As promised, I ve attached a BW report that shows SoCalGas cost element 6125002 EXEC-BEN LT INCENT and IO 300362207 charges in your witness areas and they're reducing your 2019 Recorded expenses because they're credits!! Some of you appear to have caught some of these, but there are several that haven't been adjusted yet (see column T for notes – some corrections to existing adjustments may be needed). There are a few very small dollars in 2017 & 2018 that you can probably ignore, since they're under our \$5k threshold.				
	Please review the attached file and TRANSFER these NON-LABOR expenses from your witness area/workpaper to the Comp & Benefits witness cost center 2200-8000.002.				
2019	0	26	0	0.0	SSD_Type Transf FROM IO_Ret
Explanation:	As promised, I ve attached a BW report that shows SoCalGas cost element 6125002 EXEC-BEN LT INCENT and IO 300362207 charges in your witness areas and they're reducing your 2019 Recorded expenses because they're credits!! Some of you appear to have caught some of these, but there are several that haven't been adjusted yet (see column T for notes – some corrections to existing adjustments may be needed). There are a few very small dollars in 2017 & 2018 that you can probably ignore, since they're under our \$5k threshold.				
	Please review the attached file and TRANSFER these NON-LABOR expenses from your witness area/workpaper to the Comp & Benefits witness cost center 2200-8000.002.				
2019	0	-26	0	0.0	SSD_Type Transf TO IO_Alloc
Explanation:	As promised, I ve attached a BW report that shows SoCalGas cost element 6125002 EXEC-BEN LT INCENT and IO 300362207 charges in your witness areas and they're reducing your 2019 Recorded expenses because they're credits!! Some of you appear to have caught some of these, but there are several that haven't been adjusted yet (see column T for notes – some corrections to existing adjustments may be needed). There are a few very small dollars in 2017 & 2018 that you can probably ignore, since they're under our \$5k threshold.				
	Please review the attached file and TRANSFER these NON-LABOR expenses from your witness area/workpaper to the Comp & Benefits witness cost center 2200-8000.002.				
2019 Total	0	0	0	0.0	
2020	0	0	0	0.0	1-Sided Adj

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Shared Services Workpapers

Area: GAS STORAGE
 Witness: Lawrence T. Bittleston
 Category: A. VP Transmission & Storage
 Category-Sub: 1. VP Transmission & Storage
 Cost Center: 2200-2629.000 - VP TRANS & STORAGE

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2020	0	-232	0	0.0	1-Sided Adj
Explanation:	This adjustment is to nonlabor charge in FG921 IO and CE 6230210. It is a legal settlement cost. It is a one time charge that should not be included in GRC.				
2020 Total	0	-232	0	0.0	
2021	0	0	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA).				
2021 Total	0	0	0	0.0	

Note: Totals may include rounding differences.

Southern California Gas Company
2024 GRC - REVISED
Non-Shared Service Workpapers

Area: GAS STORAGE
Witness: Lawrence T. Bittleston

Appendix A: List of Non-Shared Cost Centers

Cost Center	Sub	Description
2200-0278	000	STORAGE OPERATIONS DIRECTOR
2200-0279	000	STORAGE ENGINEERING
2200-0285	000	STORAGE PLAYA DEL REY
2200-0286	000	STORAGE MONTEBELLO
2200-0288	000	STORAGE TECHNICAL SERVICES
2200-0289	000	STORAGE LA GOLETA
2200-0290	000	STORAGE HONOR RANCHO
2200-0294	000	ALISO STORAGE OPS MANAGER
2200-0295	000	ALISO STORAGE STATION OPERATIONS
2200-0296	000	ALISO STATION MAINTENANCE
2200-0297	000	ALISO STORAGE AND FIELD MAINTENANCE
2200-0298	000	ALISO ENVIRONMENTAL O&M
2200-0299	000	ALISO FIELD MAINTENANCE OIL PRODUCTION
2200-1150	000	STORAGE OPS PMO
2200-2106	000	STORAGE EAST WHITTIER
2200-2333	000	Storage Bus Plng & Budget
2200-2393	000	ALISO CANYON TURBINE REPLACEMENT
2200-2426	000	PSEP PROFICIENCY FIELD TRAINING - STORAG
2200-2477	000	ALISO REVENUE ENHANCEMENT COST CENTER
2200-2535	000	STORAGE OPERATIONS SUPPORT
2200-2536	000	STORAGE ASSET DEVELOPMENT
2200-2585	000	STORAGE INTEGRITY MANAGEMENT PROGRAM
2200-2600	000	STORAGE ABOVE GROUND LATERALS
2200-2602	000	STORAGE FACILITIES MANAGEMENT
2200-2604	000	DIRECTOR OF UNDERGROUND STORAGE
2200-2608	000	STORAGE DRILLING