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-04-WP-R-2E)

REVISED WORKPAPERS TO PREPARED DIRECT TESTIMONY OF MARIO A. AGUIRRE

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)

ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY

SECOND ERRATA

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

JUNE 2023



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

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Appendix A: List of Non-Shared Cost Centers

Southern California Gas Company 2024 GRC - REVISED SECOND ERRATA

Overall Summary For Exhibit No. SCG-04-WP-R-2E

Shared Services

Total

	Area: GAS DIS	Area: GAS DISTRIBUTION					
	Witness: Mario A.	Witness: Mario A. Aguirre					
		In 2021 \$ (000) I	ncurred Costs				
	Adjusted-Recorded	Adjusted-Recorded Adjusted-Forecast					
Description	2021	2022	2023	2024			
Non-Shared Services	170,758	169,051	164,673	167,879			

410

169,461

410

165,083

410

168,289

410

171,168

Area: GAS DISTRIBUTION

Witness: Mario A. Aguirre

Summary of Non-Shared Services Workpapers:

	In 2021 \$ (000) Incurred Costs						
	Adjusted- Recorded	Adjusted-Forecast					
Description	2021	2022 2023 2024					
A. Field Operations and Maintenance	143,027	140,091	134,543	136,577			
B. Asset Management	13,119	14,068	14,879	15,691			
C. Operations and Management	10,768	10,923	11,282	11,642			
D. Regional Public Affairs	3,844	3,969	3,969	3,969			
Total	170,758	169,051	164,673	167,879			

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Workpaper:	VARIOUS

Summary for Category: A. Field Operations and Maintenance

		<u>In 2021\$ (000) Incu</u>	urred Costs	
	Adjusted-Recorded		Adjusted-Forecast	
	2021	2022	2023	2024
Labor	86,218	83,448	81,291	82,568
Non-Labor	56,806	56,640	53,252	54,009
NSE	0	0	0	0
Total	143,024	140,088	134,543	136,577
FTE	817.4	792.9	793.4	814.9
⊣ Workpapers belonging t	o this Category:			
2GD000.000 Field Sup				
Labor	14,396	15,146	16,531	16,984
Non-Labor	4,005	4,430	4,820	5,210
NSE	0	0	0	0,210
Total	18,401	19,576	21,351	22,194
FTE	146.8	156.8	174.0	182.5
2GD001.000 Leak Surv	/ey			
Labor	10,422	7,522	7,522	7,522
Non-Labor	26	26	26	26
NSE	0	0	0	0
Total	10,448	7,548	7,548	7,548
FTE	103.9	75.0	75.0	75.0
2GD002.000 R - Locate	e & Mark			
Labor	18,809	19,442	20,159	20,877
Non-Labor	283	351	388	425
NSE	0	0	0	0
Total	19,092	19,793	20,547	21,302
FTE	189.1	195.2	202.1	209.1
2GD003.000 Main Mair	ntenance			
Labor	2,727	1,477	1,477	1,477
Non-Labor	12,635	12,251	8,273	7,480
NSE	0	0	0	0
Total	15,362	13,728	9,750	8,957
FTE	27.1	14.7	14.7	14.7
2GD004.000 Service N	laintenance			
Labor	4,226	4,452	4,452	4,452
Non-Labor	1,563	552	552	552
NSE	0	0	0	0
Total	5,789	5,004	5,004	5,004
FTE	42.8	44.0	44.0	44.0

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Workpaper:	VARIOUS

		In 2021\$ (000) Inc	urred Costs	
	Adjusted-Recorded		Adjusted-Forecast	
	2021	2022	2023	2024
2GD005.000 Tools Fit	ttings & Materials			
Labor	6	18	21	23
Non-Labor	20,549	22,010	23,358	24,705
NSE	0	0	0	0
Total	20,555	22,028	23,379	24,728
FTE	0.0	0.1	0.1	0.1
2GD006.000 Leakage				
Labor	19,347	18,881	14,053	13,091
Non-Labor	6,290	5,563	4,362	4,123
NSE	0	0	0	0
Total	25,637	24,444	18,415	17,214
FTE	152.0	149.1	120.2	115.8
2GD007.000 Measure	ment & Regulation			
Labor	8,790	8,839	9,155	9,505
Non-Labor	1,612	1,614	1,630	1,645
NSE	0	0	0	0
Total	10,402	10,453	10,785	11,150
FTE	81.0	81.5	84.4	87.6
2GD008.000 Cathodie	c Protection			
Labor	7,495	7,671	7,921	8,637
Non-Labor	9,843	9,843	9,843	9,843
NSE	0	0	0	0
Total	17,338	17,514	17,764	18,480
FTE	74.7	76.5	78.9	86.1

Beginning of Workpaper 2GD000.000 - Field Support

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub	1. Field Support
Workpaper:	2GD000.000 - Field Support

Activity Description:

Recorded to this work group are labor expenses for dispatch employees, and field employees' time attending meetings and skills training. Also included are non-labor expenses for office supplies, communication devices and materials, and other elements for field maintenance work. These labor and non-labor materials are necessary to support costs for completing field operations' maintenance and construction work.

Forecast Explanations:

Labor - 3-YR Linear

With projected increases in headcount in Gas Distribution there will be associated increases in training and meetings as well as additional needs for support functions such as Dispatch. Given these upward pressures, SoCalGas determined that a three-year (2019 through 2021) linear forecast best reflects future spending requirements for this workgroup. Using an average or base year forecasting method would not be appropriate for this work category as it would not provide sufficient funding for the level of work anticipated in the future. Therefore, a three-year linear forecast was used to calculate the labor requested for this group. Control Center Modernization (CCM) is a new activity that will begin during the forecast years. The Field Support workgroup will incur additional costs associated to the CCM project to account for additional training associated to the new program. These costs were incrementally added to the three-year linear forecast for the workpaper.

Non-Labor - 3-YR Linear

With projected increases in headcount in Gas Distribution there will be associated increases in training and meetings as well as additional needs for support functions such as Dispatch. Given these upward pressures, SoCalGas determined that a three-year (2019 through 2021) linear forecast best reflects future spending requirements for this workgroup. Using an average or base year forecasting method would not be appropriate for this work category as it would not provide sufficient funding for the level of work anticipated in the future. Therefore, a three-year linear forecast was used to calculate the non-labor requested for this group.

NSE - 3-YR Linear

NSE is not applicable to this workgroup.

Summary of Results:

	In 2021\$ (000) Incurred Costs								
		Adju	isted-Recor	ded		Ad	Adjusted-Forecast		
Years	2017	2018	2019	2020	2021	2022	2023	2024	
Labor	12,591	12,552	12,870	12,657	14,396	15,146	16,532	16,984	
Non-Labor	4,292	3,364	3,224	3,719	4,005	4,430	4,820	5,210	
NSE	0	0	0	0	0	0	0	0	
Total	16,883	15,916	16,094	16,377	18,401	19,576	21,352	22,194	
FTE	127.3	109.0	123.9	122.3	146.8	156.8	174.0	182.5	

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	1. Field Support
Workpaper:	2GD000.000 - Field Support

Summary of Adjustments to Forecast:

	In 2021 \$(000) Incurred Costs										
Forecast	t Method	Bas	Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years	5	2022	2023	2024	2022	2023	2024	2022	2023	2024	
Labor	3-YR Linear	14,835	15,598	16,362	311	933	622	15,146	16,531	16,984	
Non-Labor	3-YR Linear	4,430	4,820	5,210	0	0	0	4,430	4,820	5,210	
NSE	3-YR Linear	0	0	0	0	0	0	0	0	0	
Tota	I	19,265	20,418	21,572	311	933	622	19,576	21,351	22,194	
FTE	3-YR Linear	153.9	165.4	176.8	2.9	8.6	5.7	156.8	174.0	182.5	

Forecast Adjustment Details:

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	
2022	259	0	0	259	2.7	1-Sided Adj	
Explanation:	Added costs for RAMP Locate and Mark Trainin	• •	r 2 Excavatio	on Damage (D	ig-in) on the G	as System, C01	
2022	20	0	0	20	0.2	1-Sided Adj	
Explanation:	Added costs for RAMP Locate and Mark Trainin		r 2 Excavatio	on Damage (D	ig-in) on the G	as System, C02	
2022	32	0	0	32	0.3	1-Sided Adj	
Explanation:	Added costs for RAMP Locate and Mark Annua	• •		• •	• /	as System, C05	
2022	2	0	0	2	0.1	1-Sided Adj	
Explanation:	Added costs for RAMP Locate and Mark Annua					as System, C06	
2022	341	0	0	341	3.5	1-Sided Adj	
Explanation:	Added costs for RAMP Company Excavator Tra	• •	r 2 Excavatio	on Damage (D	ig-in) on the G	as System, C27	
2022	26	0	0	26	0.3	1-Sided Adj	
Explanation:	Added costs for RAMP Company Excavator Tra		r 2 Excavatio	on Damage (D	ig-in) on the G	as System, C28	
2022	-259	0	0	-259	-2.7	1-Sided Adj	
Explanation:	Adjustment to remove on Damage (Dig-in) on the				-	apter 2 Excavation	
2022	-20	0	0	-20	-0.2	1-Sided Adj	
Explanation:	Adjustment to remove on Damage (Dig-in) on the				•	apter 2 Excavation	
2022	-32	0	0	-32	-0.3	1-Sided Adj	
Explanation:	Adjustment to remove of Damage (Dig-in) on the Competency Program (Gas System, 0			•		

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	1. Field Support
Workpaper:	2GD000.000 - Field Support

Year	Labor	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	FTE	Adj_Type	
2022	-2	0	0	-2	-0.1	1-Sided Adj	
Explanation:	Adjustment to remove o Damage (Dig-in) on the Competency Program (Gas System, (-	-	
2022	-341	0	0	-341	-3.5	1-Sided Adj	
Explanation:	Adjustment to remove on Damage (Dig-in) on the				-	apter 2 Excavation	
2022	-26	0	0	-26	-0.3	1-Sided Adj	
Explanation:	Adjustment to remove on Damage (Dig-in) on the				-	apter 2 Excavation	
2022	111	0	0	111	1.2	1-Sided Adj	
Explanation:	Added costs for RAMP Equipment (PPE).	activity Chapte	r 5 Incident II	nvolving an Er	nployee, C06 I	Personal Protection	
2022	-111	0	0	-111	-1.2	1-Sided Adj	
Explanation:	Adjustment to remove of Involving an Employee,				-	apter 5 Incident	
2022	311	0	0	311	2.9	1-Sided Adj	
Explanation:	Adjustment to show inc Control Center Moderni		to account fo	r the incremer	ntal training as	sociated to the new	
2022 Total	311	0	0	311	2.9		
2023	279	0	0	279	3.0	1-Sided Adj	
Explanation:	Added costs for RAMP Locate and Mark Trainin		r 2 Excavatio	n Damage (Di	g-in) on the G	as System, C01	
Explanation: 2023			r 2 Excavatio 0	n Damage (Di 21	g-in) on the Ga 0.2	as System, C01 1-Sided Adj	
	Locate and Mark Trainin	ng (MP). 0 activity Chapte	0	21	0.2	1-Sided Adj	
2023	Locate and Mark Trainin 21 Added costs for RAMP	ng (MP). 0 activity Chapte	0	21	0.2	1-Sided Adj	
2023 Explanation:	Locate and Mark Trainin 21 Added costs for RAMP Locate and Mark Trainin	ng (MP). 0 activity Chapte ng (HP). 0 activity Chapte	0 r 2 Excavatio 0 r 2 Excavatio	21 n Damage (Di 32 n Damage (Di	0.2 g-in) on the G 0.3 g-in) on the G	1-Sided Adj as System, C02 1-Sided Adj	
2023 Explanation: 2023	Locate and Mark Trainin 21 Added costs for RAMP Locate and Mark Trainin 32 Added costs for RAMP	ng (MP). 0 activity Chapte ng (HP). 0 activity Chapte	0 r 2 Excavatio 0 r 2 Excavatio	21 n Damage (Di 32 n Damage (Di	0.2 g-in) on the G 0.3 g-in) on the G	1-Sided Adj as System, C02 1-Sided Adj	
2023 Explanation: 2023 Explanation:	Locate and Mark Trainin 21 Added costs for RAMP Locate and Mark Trainin 32 Added costs for RAMP Locate and Mark Annua	ng (MP). 0 activity Chapteng (HP). 0 activity Chaptent I Refresher Tra 0 activity Chaptent	0 r 2 Excavatio 0 r 2 Excavatio aining and Co 0 r 2 Excavatio	21 n Damage (Di 32 n Damage (Di mpetency Pro 2 n Damage (Di	0.2 g-in) on the G 0.3 g-in) on the G gram (MP). 0.1 g-in) on the G	1-Sided Adj as System, C02 1-Sided Adj as System, C05 1-Sided Adj	
2023 Explanation: 2023 Explanation: 2023	Locate and Mark Trainin 21 Added costs for RAMP Locate and Mark Trainin 32 Added costs for RAMP Locate and Mark Annua 2 Added costs for RAMP	ng (MP). 0 activity Chapteng (HP). 0 activity Chaptent I Refresher Tra 0 activity Chaptent	0 r 2 Excavatio 0 r 2 Excavatio aining and Co 0 r 2 Excavatio	21 n Damage (Di 32 n Damage (Di mpetency Pro 2 n Damage (Di	0.2 g-in) on the G 0.3 g-in) on the G gram (MP). 0.1 g-in) on the G	1-Sided Adj as System, C02 1-Sided Adj as System, C05 1-Sided Adj	
2023 Explanation: 2023 Explanation: 2023 Explanation:	Locate and Mark Trainin 21 Added costs for RAMP Locate and Mark Trainin 32 Added costs for RAMP Locate and Mark Annua 2 Added costs for RAMP Locate and Mark Annua	ng (MP). 0 activity Chapten ng (HP). 0 activity Chapten activity Chapten activity Chapten activity Chapten 0 activity Chapten	0 r 2 Excavatio 0 r 2 Excavatio aining and Co 0 r 2 Excavatio aining and Co 0	21 n Damage (Di 32 n Damage (Di mpetency Pro 2 n Damage (Di mpetency Pro 341	0.2 g-in) on the Ga g-in) on the Ga gram (MP). 0.1 g-in) on the Ga gram (HP). 3.6	1-Sided Adj as System, C02 1-Sided Adj as System, C05 1-Sided Adj as System, C06 1-Sided Adj	
2023 Explanation: 2023 Explanation: 2023 Explanation: 2023	Locate and Mark Trainin 21 Added costs for RAMP Locate and Mark Trainin 32 Added costs for RAMP Locate and Mark Annua 2 Added costs for RAMP Locate and Mark Annua 341 Added costs for RAMP	ng (MP). 0 activity Chapten ng (HP). 0 activity Chapten activity Chapten activity Chapten activity Chapten 0 activity Chapten	0 r 2 Excavatio 0 r 2 Excavatio aining and Co 0 r 2 Excavatio aining and Co 0	21 n Damage (Di 32 n Damage (Di mpetency Pro 2 n Damage (Di mpetency Pro 341	0.2 g-in) on the Ga g-in) on the Ga gram (MP). 0.1 g-in) on the Ga gram (HP). 3.6	1-Sided Adj as System, C02 1-Sided Adj as System, C05 1-Sided Adj as System, C06 1-Sided Adj	

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	1. Field Support
Workpaper:	2GD000.000 - Field Support

Year	Labor	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	FTE	Adj_Type
2023	-279	0	0	-279	-3.0	1-Sided Adj
Explanation:	Adjustment to remove co Damage (Dig-in) on the 0				-	apter 2 Excavation
2023	-21	0	0	-21	-0.2	1-Sided Adj
Explanation:	Adjustment to remove co Damage (Dig-in) on the C				-	apter 2 Excavation
2023	-32	0	0	-32	-0.3	1-Sided Adj
Explanation:	Adjustment to remove co Damage (Dig-in) on the C Competency Program (M	Gas System, (-	-
2023	-2	0	0	-2	-0.1	1-Sided Adj
Explanation:	Adjustment to remove co Damage (Dig-in) on the C Competency Program (H	Gas System, (•	•
2023	-341	0	0	-341	-3.6	1-Sided Adj
Explanation:	Adjustment to remove co Damage (Dig-in) on the 0				-	apter 2 Excavation
2023	-26	0	0	-26	-0.3	1-Sided Adj
Explanation:	Adjustment to remove co Damage (Dig-in) on the C					apter 2 Excavation
2023	111	0	0	111	1.2	1-Sided Adj
Explanation:	Added costs for RAMP a Equipment (PPE).	ctivity Chapte	r 5 Incident Ir	volving an En	nployee, C06 I	Personal Protection
2023	-111	0	0	-111	-1.2	1-Sided Adj
Explanation:	Adjustment to remove co Involving an Employee, C					apter 5 Incident
2023	933	0	0	933	8.6	1-Sided Adj
Explanation:	Adjustment to show incre Control Center Moderniza		to account fo	r the incremer	ntal training as	sociated to the new
2023 Total	933	0	0	933	8.6	
2024	299	0	0	299	3.2	1-Sided Adj
Explanation:	Added costs for RAMP a Locate and Mark Training		r 2 Excavatio	n Damage (Di	g-in) on the G	as System, C01
2024	22	0	0	22	0.2	1-Sided Adj
Explanation:	Added costs for RAMP a Locate and Mark Training	• •	r 2 Excavatio	n Damage (Di	g-in) on the G	as System, C02
2024	32	0	0	32	0.3	1-Sided Adj

GAS DISTRIBUTION

Area:

Alea.	GAS DISTRIBUTION	1							
Witness:	Mario A. Aguirre								
Category:	A. Field Operations a	ind Maintena	ince						
Category-Sub:	1. Field Support								
Workpaper:	2GD000.000 - Field \$	Support							
Year	Labor	NLbr	NSE	Total	FTE	Adj_Type			
Explanation:	Added costs for RAMP ac								
	Locate and Mark Annual I					20 0 j 0000000, 0 000			
2024	2	0	0	2	0.1	1-Sided Adj			
Explanation:	Added costs for RAMP ac Locate and Mark Annual I	• •		• •	• /	as System, C06			
2024	341	0	0	341	3.7	1-Sided Adj			
Explanation:	Added costs for RAMP ac Company Excavator Trair		er 2 Excavatio	on Damage (Di	ig-in) on the Ga	as System, C27			
2024	26	0	0	26	0.3	1-Sided Adj			
Explanation:	Added costs for RAMP ac Company Excavator Trair		er 2 Excavatio	on Damage (Di	ig-in) on the Ga	as System, C28			
2024	-299	0	0	-299	-3.2	1-Sided Adj			
Explanation:	Adjustment to remove cos Damage (Dig-in) on the G				-	apter 2 Excavation			
2024	-22	0	0	-22	-0.2	1-Sided Adj			
Explanation:	Adjustment to remove cos Damage (Dig-in) on the G				-	apter 2 Excavation			
2024	-32	0	0	-32	-0.3	1-Sided Adj			
Explanation:	Adjustment to remove cos Damage (Dig-in) on the G Competency Program (M	as System,			-	-			
2024	-2	0	0	-2	-0.1	1-Sided Adj			
Explanation:	Adjustment to remove cos Damage (Dig-in) on the G Competency Program (HI	as System,			-				
2024	-341	0	0	-341	-3.7	1-Sided Adj			
Explanation:	Adjustment to remove cos Damage (Dig-in) on the G				•	apter 2 Excavation			
2024	-26	0	0	-26	-0.3	1-Sided Adj			
Explanation:	Adjustment to remove cos Damage (Dig-in) on the G				•	apter 2 Excavation			
2024	111	0	0	111	1.2	1-Sided Adj			
Explanation:	Added costs for RAMP ac Equipment (PPE).	ctivity Chapte	er 5 Incident l	nvolving an Er	nployee, C06 F	Personal Protection			
2024	-111	0	0	-111	-1.2	1-Sided Adj			
Explanation:	Adjustment to remove cos Involving an Employee, C				-	apter 5 Incident			
2024	622	0	0	622	5.7	1-Sided Adj			

Area:	GAS DISTRIBUTIO	Ν					
Witness:	Mario A. Aguirre						
Category:	A. Field Operations	and Maintena	ance				
Category-Sub:	1. Field Support						
Workpaper:	2GD000.000 - Field	Support					
<u>Year</u>	Labor	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	Adj_Type	
Explanation:	Adjustment to show incre Control Center Moderniz			r the increme	ntal training asso	ciated to the new	
2024 Total	622	0	0	622	5.7		

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	1. Field Support
Workpaper:	2GD000.000 - Field Support

Determination of Adjusted-Recorded (Incurred Costs):

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
ecorded (Nominal \$)*					
Labor	9,673	9,950	10,246	11,420	12,237
Non-Labor	3,820	3,110	2,980	4,238	5,151
NSE	0	0	0	0	0
Total	13,493	13,059	13,225	15,658	17,388
FTE	108.2	93.2	104.0	102.5	123.4
djustments (Nominal \$) *	*				
Labor	-19	-83	-2	-970	0
Non-Labor	-6	-25	28	-783	-1,146
NSE	0	0	0	0	0
Total	-25	-108	26	-1,753	-1,146
FTE	-0.1	-0.6	-0.1	-0.2	0.0
ecorded-Adjusted (Nomir	nal \$)				
Labor	9,654	9,867	10,244	10,450	12,237
Non-Labor	3,814	3,084	3,008	3,455	4,005
NSE	0	0	0	0	0
Total	13,468	12,951	13,251	13,905	16,241
FTE	108.1	92.5	103.8	102.3	123.5
acation & Sick (Nominal S	\$)				
Labor	1,636	1,698	1,942	1,841	2,160
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	1,636	1,698	1,942	1,841	2,160
FTE	19.2	16.5	20.1	20.0	23.3
scalation to 2021\$					
Labor	1,301	987	683	366	0
Non-Labor	478	280	217	264	0
NSE	0	0	0	0	0
Total	1,779	1,266	900	630	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2021\$)				
Labor	12,591	12,552	12,870	12,657	14,396
Non-Labor	4,292	3,364	3,224	3,719	4,005
NSE	0	0	0	0	0
Total	16,883	15,916	16,094	16,377	18,401
FTE	127.3	109.0	123.9	122.3	146.8

* 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.*

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	1. Field Support
Workpaper:	2GD000.000 - Field Support

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs								
	Years	2017	2018	2019	2020	2021		
Labor		-19	-83	-2	-970	0		
Non-Labor		-6	-25	28	-783	-1,146		
NSE		0	0	0	0	0		
	Total	-25	-108	26	-1,753	-1,146		
FTE		-0.1	-0.6	-0.1	-0.2	0.0		

Detail of Adjustments to Recorded:

<u>Year</u>	Labor	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>
2017	-19	-6	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are an Memorandum Account (CEM.		ested for reco	very through	a non-GRC Catastrophic Event
2017 Total	-19	-6	0	-0.1	
2018	-83	-17	0	-0.6	1-Sided Adj
Explanation:	Incremental costs that are an Memorandum Account (CEM	· ·	ested for reco	very through	a non-GRC Catastrophic Event
2018	0	0	0	0.0	CCTR Transf From 2200-0450.000
Explanation:	Adjusting NL charge from Loc recorded. This is a follow up		• •		orkpaper where costs are as witness to Gas Distribution.
2018	0	-4	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are an Memorandum Account (CEM		ested for reco	very through	a non-GRC Catastrophic Event
2018	0	0	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are an Memorandum Account (CEM		ested for reco	very through	a non-GRC Catastrophic Event
2018	0	-7	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are an Memorandum Account (CEM		ested for reco	very through	a non-GRC Catastrophic Event
2018	0	0	0	0.0	1-Sided Adj
Explanation:	Incremental costs that are an Memorandum Account (CEM		ested for reco	very through	a non-GRC Catastrophic Event
2018	0	3	0	0.0	CCTR Transf From 2200-0641.000
	Transferring costs out of Chat				

ntenance

<u>Year</u>	Labor	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adi Type</u>
2018 Total	-83	-25	0	-0.6	
2019	-2	-3	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipa Memorandum Account (CEMA).	ated to be reque	ested for reco	very through	a non-GRC Catastrophic Event
2019	0	31	0	0.0	CCTR Transf To 2200-8000.002
Explanation:	Adjustment to move credits assoc - Compensation & Benefits witnes		ecutive bene	fits from Gas	s Distribution to Corporate Center
2019 Total	-2	28	0	-0.1	
2020	0	0	0	0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipa Memorandum Account (CEMA).	ated to be reque	ested for reco	very through	a non-GRC Catastrophic Event
2020	-970	-783	0	-0.1	1-Sided Adj
Explanation:	Incremental COVID-related costs Catastrophic Event Memorandum	•		uested for r	ecovery through a non-GRC
2020	0	0	0	-0.1	CCTR Transf To 2200-2011.001
Explanation:	Transfer costs to GOSI CC 2200-2	2011.001 related	d to SB1371 ((BLP) Emiss	ions Strategy Program
2020	0	0	0	-0.1	CCTR Transf To 2200-2011.002
Explanation:	Transfer costs to GOSI CC 2200-2	2011.002 relate	d to SB1371 ((BLM) Emiss	sions Strategy Program
2020 Total	-970	-783	0	-0.2	
2021	0	-1,146	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-related costs Catastrophic Event Memorandum	•		uested for r	ecovery through a non-GRC
2021	0	0	0	0.0	1-Sided Adj
Explanation:	Adjustment to remove non-GRC or recovered through a separate reg			missions St	rategy Program that are being
2021	0	-1	0	0.0	1-Sided Adj
Explanation:	Excluding costs associated to due	es. 2021: \$51	0		
2021 Total	0	-1,146	0	0.0	

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	1. Field Support
Workpaper:	2GD000.000 - Field Support

RAMP Item # 1

RAMP Activity

RAMP Chapter: SCG-Risk-5 Incident Involving an Employee

RAMP Line Item ID: C06

RAMP Line Item Name: Personal Protection Equipment (PPE)

Tranche(/s): Tranche1: Non-Vehicle Incident

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP R (2020 Inci	ange
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	111	111	111	111	1,082	1,309

Cost Estimate Changes from RAMP:

Gas Distribution only.

2021 RAMP cost estimate was forecast for all field SCG work areas. Forecast represented here is exclusively Gas Distribution only.

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 RA Range Act	
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 # of employees supported - boot allowance	1,308.00	1,308.00	1,308.00	1,308.00	17.00	21.00

 Risk Spend Efficiency (RSE)

 GRC RSE
 RAMP RSE

 Tranche 1
 0.000

 RSE Changes from RAMP:
 RSE was not calculated for this activity in both the 2021 RAMP Report and the GRC.

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	1. Field Support
Workpaper:	2GD000.000 - Field Support

RAMP Item # 2

RAMP Activity

RAMP Chapter: SCG-Risk-2 Excavation Damage (Dig-In) on the Gas System

RAMP Line Item ID: C01

RAMP Line Item Name: Locate & Mark Training (MP)

Tranche(/s): Tranche1: N/A

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP R (2020 Incu	ange
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	246	259	279	299	426	515

Cost Estimate Changes from RAMP:

Costs for this RAMP activity are split between multiple witness areas (Gas System Staff & Technology) and further split between O&M and Capital.

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 R Range Ao	
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 # of Hours - Training	4,995.00	5,400.00	5,939.00	6,478.00	6,363.00	7,702.00

	GRC RSE	RAMP RSE
Tranche 1	0.000	0.000

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	1. Field Support
Workpaper:	2GD000.000 - Field Support

RAMP Item # 3

RAMP Activity

RAMP Chapter: SCG-Risk-2 Excavation Damage (Dig-In) on the Gas System

RAMP Line Item ID: C02

RAMP Line Item Name: Locate & Mark Training (HP)

Tranche(/s): Tranche1: N/A

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP R (2020 Inci	ange
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	19	20	21	22	36	43

Cost Estimate Changes from RAMP:

Costs for this RAMP activity are split between multiple witness areas (Gas System Staff & Technology and Gas Transmission Operations and Construction) and further split between O&M and Capital.

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 R/ Range Ac	
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 # of Hours - Training	375.00	406.00	447.00	488.00	543.00	657.00

Risk Spend Efficiency (RSE)			
	GRC RSE	RAMP RSE	
Tranche 1	0.000	0.000	
RSE Changes from RAMP: RSE was not calculated for this ac	tivity in both the 2021 RAMP Report and t	the GRC.	

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	1. Field Support
Workpaper:	2GD000.000 - Field Support

RAMP Item # 4

RAMP Activity

RAMP Chapter: SCG-Risk-2 Excavation Damage (Dig-In) on the Gas System

RAMP Line Item ID: C05

RAMP Line Item Name: Locate and Mark Annual Refresher Training and Competency Program (MP)

Tranche(/s): Tranche1: Overall

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP R (2020 Incu	ange
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	31	32	32	32	49	59

Cost Estimate Changes from RAMP:

Costs for this RAMP activity are split between O&M and Capital.

GRC Work Unit/Activity Level Estimates

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 R Range Ad	
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 # of Hours - Training	575.00	609.00	631.00	653.00	863.00	1,044.00

Work Unit Changes from RAMP:

Risk Spend Efficiency (RSE)		
	GRC RSE	RAMP RSE
Tranche 1	21.000	23.000
RSE Changes from RAMP:		
5	r RSE values are primarily due to changes Integration testimony of R. Scott Pearsor	63 /

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	1. Field Support
Workpaper:	2GD000.000 - Field Support

RAMP Item # 5

RAMP Activity

RAMP Chapter: SCG-Risk-2 Excavation Damage (Dig-In) on the Gas System

RAMP Line Item ID: C06

RAMP Line Item Name: Locate and Mark Annual Refresher Training and Competency Program (HP)

Tranche(/s): Tranche1: Overall

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP R (2020 Incu	ange
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	2	2	2	2	14	16

Cost Estimate Changes from RAMP:

Costs for this RAMP activity are split between O&M and Capital.

GRC Work Unit/Activity Level Estimates

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 R/ Range Ac	
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 # of Hours - Training	43.00	46.00	47.00	49.00	244.00	295.00

Work Unit Changes from RAMP:

Risk Spend Efficiency (RSE)		
	GRC RSE	RAMP RSE
Tranche 1	53.000	121.000
RSE Changes from RAMP:		
	r RSE values are primarily due to change	
as discussed in the RAMP to GRC SCG-03/SDG&E-03, Chapter 2).	Integration testimony of R. Scott Pearson	n and Gregory S. Flores (EX.

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	1. Field Support
Workpaper:	2GD000.000 - Field Support

RAMP Item # 6

RAMP Activity

RAMP Chapter: SCG-Risk-2 Excavation Damage (Dig-In) on the Gas System

RAMP Line Item ID: C27

RAMP Line Item Name: Company Excavator Training (MP)

Tranche(/s): Tranche1: N/A

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP R (2020 Inc	ange
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	341	341	341	341	321	411

Cost Estimate Changes from RAMP:

Costs for this RAMP activity are split between multiple witness areas (Gas System Staff & Technology) and further split between O&M and Capital.

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 R Range Ao	
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 # of Hours - Training	5,471.00	5,471.00	5,471.00	5,471.00	5,376.00	6,508.00

Risk Spend Efficiency (RSE)			
	GRC RSE	RAMP RSE	
Tranche 1	0.000	0.000	
RSE Changes from RAMP: RSE was not calculated for this ac	tivity in both the 2021 RAMP Report and	the GRC.	

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	1. Field Support
Workpaper:	2GD000.000 - Field Support

RAMP Item # 7

RAMP Activity

RAMP Chapter: SCG-Risk-2 Excavation Damage (Dig-In) on the Gas System

RAMP Line Item ID: C28

RAMP Line Item Name: Company Excavator Training (HP)

Tranche(/s): Tranche1: N/A

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP R (2020 Inci	ange
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	26	26	26	26	36	47

Cost Estimate Changes from RAMP:

Costs for this RAMP activity are split between multiple witness areas (Gas System Staff & Technology and Gas Transmission Operations and Construction) and further split between O&M and Capital.

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 R/ Range Ac	
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 # of Hours - Training	412.00	412.00	412.00	412.00	620.00	750.00

	GRC RSE	RAMP RSE
Tranche 1	0.000	0.000

Beginning of Workpaper 2GD001.000 - Leak Survey

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub	2. Leak Survey
Workpaper:	2GD001.000 - Leak Survey

Activity Description:

Recorded to this workgroup are the labor and non-labor expenses associated with federal and state pipeline safety regulations, which require SoCalGas to survey its gas distribution system for leakage. SoCalGas pipelines are routinely leak surveyed at intervals of one or five years or multiple times per year. The frequency of this survey is determined by the pipe material involved (i.e., plastic or steel), the operating pressure, the cathodic protection of the pipe, and the proximity of the pipe to various population densities. SoCalGas currently has approximately 101,603 miles of main and service pipeline requiring leak survey.

Forecast Explanations:

Labor - Base YR Rec

SoCalGas has chosen a base year forecast to forecast the base spending for the leak survey work. SoCalGas increased the survey cycle frequency for DOT-T defined High Pressure pipelines to semi-annually and quarterly (depending on class location) from annual to comply with added requirements in GO 112-F. SoCalGas has also increased survey cycle requirements for all pre-1986 plastic pipe (Aldyl-A) from a five-year survey cycle to an annual cycle and increased the survey cycle for cathodically unprotected steel pipe from three years to one year. SoCalGas also made efforts to level the leak survey footage throughout the months of the year and between different years within the survey cycles to remove any spikes in survey footage from month to month and between different years. Additionally, SoCalGas anticipates efficiencies through improved scheduling processes which will lower overall costs in this workgroup. Given the previous efforts to create consistency within the activity group and efficiencies realized through scheduling improvements, a base year recorded forecast was used to forecast the base spending for the leak survey work and the incremental savings realized through scheduling improvements will reduce the costs below the base year recorded spending level.

Non-Labor - Base YR Rec

SoCalGas has chosen a base year forecast to forecast the base spending for the leak survey work. SoCalGas increased the survey cycle frequency for DOT-T defined High Pressure pipelines to semi-annually and quarterly (depending on class location) from annual to comply with added requirements in GO 112-F. SoCalGas has also increased survey cycle requirements for all pre-1986 plastic pipe (Aldyl-A) from a five-year survey cycle to an annual cycle and increased the survey cycle for cathodically unprotected steel pipe from three years to one year. SoCalGas also made efforts to level the leak survey footage throughout the months of the year and between different years within the survey cycles to remove any spikes in survey footage from month to month and between different years. Additionally, SoCalGas anticipates efficiencies through improved scheduling processes which will lower overall costs in this workgroup. Given the previous efforts to create consistency within the activity group and efficiencies realized through scheduling improvements, a base year recorded forecast was used to forecast the base spending for the leak survey work and the incremental savings realized through scheduling improvements will reduce the costs below the base year recorded spending level.

NSE - Base YR Rec

NSE is not applicable to this workgroup.

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub	2. Leak Survey
Workpaper:	2GD001.000 - Leak Survey

Summary of Results:

		In 2021\$ (000) Incurred Costs								
		Adju	isted-Recor		Ad	justed-Fore	cast			
Years	2017	2018	2019	2020	2021	2022	2023	2024		
Labor	9,501	8,325	10,370	10,253	10,422	7,522	7,522	7,522		
Non-Labor	25	6	13	17	26	26	26	26		
NSE	0	0	0	0	0	0	0	0		
Total	9,526	8,330	10,383	10,270	10,448	7,548	7,548	7,548		
FTE	107.1	93.6	112.6	108.1	103.9	75.0	75.0	75.0		

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	2. Leak Survey
Workpaper:	2GD001.000 - Leak Survey

Summary of Adjustments to Forecast:

			In 202	1 \$(000) lı	ncurred Co	sts				
Forecast	Forecast Method Base Forecast				Forecast Adjustments			Adjusted-Forecast		
Years	5	2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	Base YR Rec	10,422	10,422	10,422	-2,900	-2,900	-2,900	7,522	7,522	7,522
Non-Labor	Base YR Rec	26	26	26	0	0	0	26	26	26
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Tota	I	10,448	10,448	10,448	-2,900	-2,900	-2,900	7,548	7,548	7,548
FTE	Base YR Rec	103.9	103.9	103.9	-28.9	-28.9	-28.9	75.0	75.0	75.0

Forecast Adjustment Details:

-										
<u>Year</u>	Labor	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>				
2022	-2,900	0	0	-2,900	-28.9	1-Sided Adj				
-	RAMP Chapter 3 Inciden Survey. Including adjust			-		• /				
2022 Total	-2,900	0	0	-2,900	-28.9					
2023	-2,900	0	0	-2,900	-28.9	1-Sided Adj				
=		RAMP Chapter 3 Incident Related to the Medium Pressure System (Excluding Dig-in), C08 Leak Survey. Including adjustment to account for efficiencies realized through scheduling improvements.								
2023 Total	-2,900	0	0	-2,900	-28.9					
2024	-2,900	0	0	-2,900	-28.9	1-Sided Adj				
•	RAMP Chapter 3 Inciden Survey. Including adjust			-	· · ·	0 /				

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	2. Leak Survey
Workpaper:	2GD001.000 - Leak Survey

Determination of Adjusted-Recorded (Incurred Costs):

·····	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
ecorded (Nominal \$)*					
Labor	7,285	6,544	8,254	8,465	8,858
Non-Labor	22	5	12	16	26
NSE	0	0	0	0	0
Total	7,307	6,549	8,266	8,481	8,884
FTE	90.9	79.3	94.3	90.4	87.4
ljustments (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
ecorded-Adjusted (Nomi	nal \$)				
Labor	7,285	6,544	8,254	8,465	8,858
Non-Labor	22	5	12	16	26
NSE	0	0	0	0	0
Total	7,307	6,549	8,266	8,481	8,884
FTE	90.9	79.3	94.4	90.4	87.4
cation & Sick (Nominal	\$)				
Labor	1,235	1,126	1,565	1,491	1,563
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	1,235	1,126	1,565	1,491	1,563
FTE	16.2	14.3	18.2	17.7	16.5
calation to 2021\$					
Labor	981	654	551	296	0
Non-Labor	3	0	1	1	0
NSE	0	0	0	0	0
Total	984	655	551	298	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Cons	tant 2021\$)				
Labor	9,501	8,325	10,370	10,253	10,422
Non-Labor	25	6	13	17	26
NSE	0	0	0	0	0
Total	9,526	8,330	10,383	10,270	10,448
FTE	107.1	93.6	112.6	108.1	103.9

* 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 DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	2. Leak Survey
Workpaper:	2GD001.000 - Leak Survey

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	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			

Year	Labor	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	2. Leak Survey
Workpaper:	2GD001.000 - Leak Survey

RAMP Item # 1

RAMP Activity

RAMP Chapter: SCG-Risk-3 Incident Related to the Medium Pressure System (Excluding Dig-in)

RAMP Line Item ID: C08

RAMP Line Item Name: Leak Survey

Tranche(/s): Tranche1: High Pressure Supply Lines; Tranche2: Medium Pressure Mains - Plastic & Steel

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP R (2020 Inc	ange
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	3,342	2,414	2,414	2,414	7,180	8,690
Tranche 2 Cost Estimate	7,105	5,133	5,133	5,133	0	0

Cost Estimate Changes from RAMP:

The GRC forecast is outside the RAMP range due to forecast updates.

GRC Work Unit/Activity Level Estimates

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP Range Activities		
Measure	Activities	Activities	Activities	Activities	Low	High	
Tranche 1 Miles inspected - leak survey	11,824.00	11,824.00	11,824.00	11,824.00	27,095.00	32,786.00	
Tranche 2 Miles inspected - leak survey	24,183.00	24,183.00	24,183.00	24,183.00	0.00	0.00	

Work Unit Changes from RAMP:

Units for GRC are being gathered from a newly created tool managed by Compliance Assurance, which was not available at the time of the RAMP filing.

Risk Spend Efficiency (RSE)			
	GRC RSE	RAMP RSE	
Tranche 1	0.350	23.000	
Tranche 2	6.200	23.000	

Area:GAS DISTRIBUTIONWitness:Mario A. AguirreCategory:A. Field Operations and MaintenanceCategory-Sub:2. Leak SurveyWorkpaper:2GD001.000 - Leak Survey

RSE Changes from RAMP:

General changes to risks scores or RSE values are primarily due to changes in the MAVF and RSE methodology, as discussed in the RAMP to GRC Integration testimony of R. Scott Pearson and Gregory S. Flores (Ex. SCG-03/SDG&E-03, Chapter 2). For RSE purposes SCG-Risk-3-C08-Tranche 1 & C17-Tranche 1 are combined. For RSE purposes SCG-Risk-3-C08-Tranche 2 & Tranche 3 are combined.

Beginning of Workpaper 2GD002.000 - R - Locate & Mark

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub	3. R - Locate & Mark
Workpaper:	2GD002.000 - R - Locate & Mark

Activity Description:

The activities completed under this cost workgroup are preventative in nature and are required to avert damages caused by third-party excavators working near gas underground substructures. The work is primarily comprised of locating and marking SocalGas's underground pipelines, conducting job observations, performing pothole operations, and performing depth checks.

Forecast Explanations:

Labor - 3-YR Linear

The activity in this workgroup is driven by the level of construction activity throughout the service territory and by public awareness of the requirement to contact the appropriate Regional Notification Center before commencing excavation work. SoCalGas expects Locate and Mark activities to continue to rise due to SB661 Protection of Subsurface Installations, SB1198 Wade Kilpatrick Gas Safety and Workforce Adequacy act of 2021, and efforts from the Damage Prevention Department to raise awareness of these requirements with contractors and the general public. For this reason, the Locate and Mark forecast is based on the linear trend observed the last three years (2019 through 2021). Using an average or base year forecast would not appropriately account for the increase in work anticipated over the forecast period. Thus, to reflect these changing conditions and increase in Locate and Mark work, SoCalGas is projecting that forecasted expenses for this workgroup will follow the three-year historical linear trend. SoCalGas is requesting a two-way balancing account for this work group.

Non-Labor - 3-YR Linear

The activity in this workgroup is driven by the level of construction activity throughout the service territory and by public awareness of the requirement to contact the appropriate Regional Notification Center before commencing excavation work. SoCalGas expects Locate and Mark activities to continue to rise due to SB661 Protection of Subsurface Installations, SB1198 Wade Kilpatrick Gas Safety and Workforce Adequacy act of 2021, and efforts from the Damage Prevention Department to raise awareness of these requirements with contractors and the general public. For this reason, the Locate and Mark forecast is based on the linear trend observed the last three years (2019 through 2021). Using an average or base year forecast would not appropriately account for the increase in work anticipated over the forecast period. Thus, to reflect these changing conditions and increase in Locate and Mark work, SoCalGas is projecting that forecasted expenses for this workgroup will follow the three-year historical linear trend. SoCalGas is requesting a two-way balancing account for this workgroup.

NSE - 3-YR Linear

NSE is not applicable to this workgroup.

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub	3. R - Locate & Mark
Workpaper:	2GD002.000 - R - Locate & Mark

Summary of Results:

	In 2021\$ (000) Incurred Costs									
		Adju	isted-Recor	Adjusted-Forecast						
Years	2017	2018	2019	2020	2021	2022	2023	2024		
Labor	15,550	15,811	17,375	17,841	18,809	19,442	20,159	20,876		
Non-Labor	154	192	210	340	283	351	388	425		
NSE	0	0	0	0	0	0	0	0		
Total	15,704	16,003	17,585	18,181	19,092	19,793	20,547	21,301		
FTE	162.9	161.5	175.2	179.6	189.1	195.2	202.1	209.1		

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	3. R - Locate & Mark
Workpaper:	2GD002.000 - R - Locate & Mark

Summary of Adjustments to Forecast:

	In 2021 \$(000) Incurred Costs										
Forecas	t Method	Bas	Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years	s	2022	2022 2023 2024		2022	2023	2024	2022	2023	2024	
Labor	3-YR Linear	19,442	20,159	20,877	0	0	0	19,442	20,159	20,877	
Non-Labor	3-YR Linear	351	388	425	0	0	0	351	388	425	
NSE	3-YR Linear	0	0	0	0	0	0	0	0	0	
Tota	al	19,794	20,547	21,301	0	0	0	19,794	20,547	21,301	
FTE	3-YR Linear	195.2	202.1	209.1	0.0	0.0	0.0	195.2	202.1	209.1	

Forecast Adjustment Details:

<u>Year</u>	Labor	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>			
2022	-18,081	-327	0	-18,408	-181.5	1-Sided Adj			
Explanation:	Adjustment to remove RAMP Base from workpaper for RAMP activity Chapter 2 Excavation Damage (Dig-in) on the Gas System, C03 Locate and Mark Activities (MP)								
2022	-1,361	-25	0	-1,386	-13.7	1-Sided Adj			
Explanation:	Adjustment to remove RAMP Base from workpaper for RAMP activity Chapter 2 Excavation Damage (Dig-in) on the Gas System, C04 Locate and Mark Activities (HP).								
2022	18,081	327	0	18,408	181.5	1-Sided Adj			
Explanation:	Adjustment to show RAMP Base for RAMP activity Chapter 2 Excavation Damage (Dig-in) on the Gas System, C03 Locate and Mark Activities (MP).								
2022	1,361	25	0	1,386	13.7	1-Sided Adj			
Explanation:	Adjustment to show RAMP Base for RAMP activity Chapter 2 Excavation Damage (Dig-in) on the Gas System, C04 Locate and Mark Activities (HP).								
2022 Total	0	0	0	0	0.0				
2023	-18,748	-361	0	-19,109	-188.0	1-Sided Adj			
Explanation:	Adjustment to remove RAMP Base from workpaper for RAMP activity Chapter 2 Excavation Damage (Dig-in) on the Gas System, C03 Locate and Mark Activities (MP).								
2023	-1,411	-27	0	-1,438	-14.1	1-Sided Adj			
Explanation:	Adjustment to remove RAMP Base from workpaper for RAMP activity Chapter 2 Excavation Damage (Dig-in) on the Gas System, C04 Locate and Mark Activities (HP).								
2023	18,748	361	0	19,109	188.0	1-Sided Adj			
Explanation:	Adjustment to show RAMP Base for RAMP activity Chapter 2 Excavation Damage (Dig-in) on the Gas System, C03 Locate and Mark Activities (MP).								
2023	1,411	27	0	1,438	14.1	1-Sided Adj			
Explanation:	Adjustment to show RAMP Base for RAMP activity Chapter 2 Excavation Damage (Dig-in) on the Gas System, C04 Locate and Mark Activities (HP).								
2023 Total	0	0	0	0	0.0				

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	3. R - Locate & Mark
Workpaper:	2GD002.000 - R - Locate & Mark

Year	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	Adj_Type			
2024	-19,415	-395	0	-19,810	-194.5	1-Sided Adj			
Explanation:	Adjustment to remove RAMP Base from workpaper for RAMP activity Chapter 2 Excavation Damage (Dig-in) on the Gas System, C03 Locate and Mark Activities (MP).								
2024	-1,461	-30	0	-1,491	-14.6	1-Sided Adj			
Explanation:	Adjustment to remove RAMP Base from workpaper for RAMP activity Chapter 2 Excavation Damage (Dig-in) on the Gas System, C04 Locate and Mark Activities (HP).								
2024	19,415	395	0	19,810	194.5	1-Sided Adj			
Explanation:	Adjustment to show RAMP Base for RAMP activity Chapter 2 Excavation Damage (Dig-in) on the Gas System, C03 Locate and Mark Activities (MP).								
2024	1,461	30	0	1,491	14.6	1-Sided Adj			
Explanation:	Adjustment to show RAMP Base for RAMP activity Chapter 2 Excavation Damage (Dig-in) on the Gas System, C04 Locate and Mark Activities (HP).								
2024 Total	0	0	0	0	0.0				

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	3. R - Locate & Mark
Workpaper:	2GD002.000 - R - Locate & Mark

Determination of Adjusted-Recorded (Incurred Costs):

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
ecorded (Nominal \$)*					
Labor	11,923	12,429	13,830	14,730	15,991
Non-Labor	137	176	196	315	292
NSE	0	0	0	0	0
Total	12,060	12,605	14,026	15,045	16,283
FTE	138.4	136.9	146.8	150.3	159.2
djustments (Nominal \$) *	*				
Labor	0	0	0	0	-3
Non-Labor	0	0	0	0	-8
NSE	0	0	0	0	0
Total	0	0	0	0	-12
FTE	0.0	0.0	0.0	0.0	-0.1
ecorded-Adjusted (Nomin	nal \$)				
Labor	11,923	12,429	13,830	14,730	15,987
Non-Labor	137	176	196	315	283
NSE	0	0	0	0	0
Total	12,060	12,605	14,026	15,045	16,271
FTE	138.4	136.9	146.8	150.3	159.2
acation & Sick (Nominal S	\$)				
Labor	2,021	2,139	2,622	2,595	2,822
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	2,021	2,139	2,622	2,595	2,822
FTE	24.5	24.6	28.4	29.3	29.9
scalation to 2021\$					
Labor	1,606	1,243	923	516	0
Non-Labor	17	16	14	24	0
NSE	0	0	0	0	0
Total	1,624	1,259	937	540	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2021\$)				
Labor	15,550	15,811	17,375	17,841	18,809
Non-Labor	154	192	210	340	283
NSE	0	0	0	0	0
Total	15,704	16,003	17,585	18,181	19,092
FTE	162.9	161.5	175.2	179.6	189.1

* 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.*

GAS DISTRIBUTION
Mario A. Aguirre
A. Field Operations and Maintenance
3. R - Locate & Mark
2GD002.000 - R - Locate & Mark

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs										
Years 2017 2018 2019 2020 2021										
Labor		0	0	0	0	-3				
Non-Labor		0	0	0	0	-8				
NSE		0	0	0	0	0				
	Total	0	0	0	0	-12				
FTE		0.0	0.0	0.0	0.0	-0.1				

Detail of Adjustments to Recorded:

Year	L	<u>.abor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type
2017 Total		0	0	0	0.0	
2018		0	0	0	0.0	CCTR Transf To 2200-0461.000
Explanation:			•	•		orkpaper where costs are es witness to Gas Distribution.
2018		0	0	0	0.0	CCTR Transf From 2200-0641.000
Explanation:	Transferring costs inco 2018.	urred for ho	tel charges for em	iployee tak	ing training a	t Pico Rivera Facility in August
2018 Total		0	0	0	0.0	
2019 Total		0	0	0	0.0	
2020 Total		0	0	0	0.0	
2021		-3	-8	0	-0.1	CCTR Transf From 2200-2296.001
Explanation:	Transfer costs from G activity.	as Distribut	ion to Integrity Ma	nagement,	WKP 2TD00	02; costs incurred for DIMP
2021 Total		-3	-8	0	-0.1	

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	3. R - Locate & Mark
Workpaper:	2GD002.000 - R - Locate & Mark

RAMP Item # 1

RAMP Activity

RAMP Chapter: SCG-Risk-2 Excavation Damage (Dig-In) on the Gas System

RAMP Line Item ID: C03

RAMP Line Item Name: Locate and Mark Activities (MP)

Tranche(/s): Tranche1: Overall

GRC Forecast Cost Estimates (\$000)

					202	24
	2021 Historical	2022	2023	2024	RAMP F	Range
	Embedded Cost	Forecast	Forecast	Forecast	(2020 Inc	urred \$)
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	17,756	18,408	19,109	19,810	19,062	23,076

Cost Estimate Changes from RAMP:

Costs for this RAMP activity are split between multiple witness areas (Gas System Staff & Technology).

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast		RAMP Activities
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 # of inspections - locate mark USA tickets, MP	837,893.00	888,166.00	941,456.00	997,944.00	805,392.00	974,949.00

None

Risk Spend Efficiency (RSE)			
	GRC RSE	RAMP RSE	
Tranche 1	14.000	767.000	
RSE Changes from RAMP:			
•	r RSE values are primarily due to changes Integration testimony of R. Scott Pearson		

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	3. R - Locate & Mark
Workpaper:	2GD002.000 - R - Locate & Mark

RAMP Item # 2

RAMP Activity

RAMP Chapter: SCG-Risk-2 Excavation Damage (Dig-In) on the Gas System

RAMP Line Item ID: C04

RAMP Line Item Name: Locate and Mark Activities (HP)

Tranche(/s): Tranche1: Overall

GRC Forecast Cost Estimates (\$000)

	2021 Historical	2022	2023	2024	2024 RAMP R	ange
	Embedded Cost (2021 \$)	Forecast (2021 \$)	Forecast (2021 \$)	Forecast (2021 \$)	(2020 Inc Low	urred \$) High
Tranche 1 Cost Estimate	1,336	1,386	1,438	1,491	4,346	5,261

Cost Estimate Changes from RAMP:

Costs for this RAMP activity are split between multiple witness areas (Gas System Staff & Technology and Gas Transmission Operations and Construction).

GRC Work Unit/Activity Level E	<u>stimates</u>					
Unit of Measure	2021 Historical Embedded Activities	2022 Forecast Activities	2023 Forecast Activities	2024 Forecast Activities		RAMP Activities High
Tranche 1 # of inspections - locate mark USA tickets, HP	63,067.00	66,851.00	70,862.00	75,114.00	192,324.00	232,813.00

Work Unit Changes from RAMP:

The number of USA tickets calculated for RAMP included the entire company. The number of USA tickets calculated in this workpaper represents Gas Distribution only.

Risk Spend Efficiency (RSE)								
	GRC RSE	RAMP RSE						
Tranche 1	98.000	55.000						
RSE Changes from RAMP: General changes to risks scores or RSE values are primarily due to changes in the MAVF and RSE methodology, as discussed in the RAMP to GRC Integration testimony of R. Scott Pearson and Gregory S. Flores (Ex. SCG-03/SDG&E-03, Chapter 2).								

Beginning of Workpaper 2GD003.000 - Main Maintenance

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub	4. Main Maintenance
Workpaper:	2GD003.000 - Main Maintenance

Activity Description:

Main maintenance work is generally corrective in nature and is required to keep the natural gas system operating safely and reliably. The work in this workgroup is designed to meet federal and state pipeline safety regulations and to extend the life of distribution main pipelines and related infrastructure. Main maintenance work is primarily comprised of compliance maintenance, miscellaneous main maintenance, and paving.

Forecast Explanations:

Labor - Base YR Rec

The primary driver for labor costs within the Main Maintenance workgroup are compliance maintenance activities such as Pipeline Patrol, Bridge and Span Survey, Unstable Earth Survey, and Valve Maintenance. The compliance maintenance activities are generally stable from year to year as they are based on the assets currently in the system. For this reason, SoCalGas considers the most recent activity level to be representative of future spending in this work category. Therefore, a base year forecast method was used to forecast the base level of future labor expense. Using an average forecasting method would not be appropriate for this work category as it would not fully fund future critical compliance and maintenance work. Using a linear trend would overstate costs beyond anticipated levels.

SoCalGas has implemented scheduling improvements which will bring costs down in this workgroup. A base year recorded forecast was used to forecast the base spending for Main Maintenance work and the incremental savings realized through scheduling improvements will reduce the costs below the base year recorded spending level.

Non-Labor - Base YR Rec

The primary driver for non-labor costs within the Main Maintenance workgroup are paving costs. Paving costs have steadily risen over the last several years due to increased efforts to reduce a historical backlog of paving orders. SoCalGas expects paving costs to plateau at current spending levels over the forecast years. For this reason, SoCalGas considers the most recent activity level to be representative of future spending in this work category. Therefore a base year forecast method was used to forecast the base level of future non-labor expense. Using an average forecasting method would not be appropriate for this work category as it would not fully fund future critical maintenance work. Using a linear trend would overstate costs beyond anticipated levels.

SoCalGas has been increasing its efforts to mitigate methane emissions through the SB 1371 Emissions Strategy Program (ESP). ESP is accelerating their leak abatement efforts, which will have an effect on the base O&M costs in the workgroup. The paving costs associated to the ESP orders that are typically included in this workgroup have been reduced in the forecast to reflect the accelerated leak abatement efforts.

See Supplemental Workpaper SCG-04-MAA-O&M-SUP-003 for calculation details.

NSE - Base YR Rec

NSE is not applicable to this workgroup.

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub	4. Main Maintenance
Workpaper:	2GD003.000 - Main Maintenance

Summary of Results:

		In 2021\$ (000) Incurred Costs								
		Adju	isted-Recor	Adjusted-Forecast						
Years	2017	2018	2019	2020	2021	2022	2023	2024		
Labor	2,762	2,309	2,814	2,595	2,727	1,477	1,477	1,477		
Non-Labor	7,291	9,997	7,843	8,575	12,635	12,251	8,273	7,480		
NSE	0	0	0	0	0	0	0	0		
Total	10,053	12,305	10,657	11,170	15,362	13,728	9,750	8,957		
FTE	27.6	23.7	26.7	25.0	27.1	14.7	14.7	14.7		

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Summary of Adjustments to Forecast:

	In 2021 \$(000) Incurred Costs									
Forecas	t Method	Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years	5	2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	Base YR Rec	2,727	2,727	2,727	-1,250	-1,250	-1,250	1,477	1,477	1,477
Non-Labor	Base YR Rec	12,635	12,635	12,635	-384	-4,362	-5,155	12,251	8,273	7,480
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Tota	I	15,362	15,362	15,362	-1,634	-5,612	-6,405	13,728	9,750	8,957
FTE	Base YR Rec	27.1	27.1	27.1	-12.4	-12.4	-12.4	14.7	14.7	14.7

Forecast Adjustment Details:

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	Adj Type	
2022	0	-384	0	-384	0.0	1-Sided Adj	
Explanation:	Adjustment to account	for paving costs	associated t	to SB1371 lea	ak repair accele	ration.	
2022	-1,250	0	0	-1,250	-12.4	1-Sided Adj	
Explanation:	Adjustment to account	for efficiencies r	ealized throu	ıgh schedulin	g improvement	S.	
2022 Total	-1,250	-384	0	-1,634	-12.4		
2023	0	-4,362	0	-4,362	0.0	1-Sided Adj	
Explanation:	Adjustment to account	for paving costs	associated t	to SB1371 lea	ak repair accele	ration.	
2023	-1,250	0	0	-1,250	-12.4	1-Sided Adj	
Explanation:	Adjustment to account	for efficiencies r	ealized throu	ıgh schedulin	g improvement	5.	
2023 Total	-1,250	-4,362	0	-5,612	-12.4		
2024	0	-5,155	0	-5,155	0.0	1-Sided Adj	
Explanation:	Adjustment to account	for paving costs	associated t	to SB1371 lea	ak repair accele	ration.	
2024	-1,250	0	0	-1,250	-12.4	1-Sided Adj	
Explanation:	Adjustment to account	for efficiencies r	ealized throu	ıgh schedulin	g improvement	б.	
2024 Total	-1,250	-5,155	0	-6,405	-12.4		

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	4. Main Maintenance
Workpaper:	2GD003.000 - Main Maintenance

Determination of Adjusted-Recorded (Incurred Costs):

····,···,	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	2,161	2,048	2,239	2,143	2,322
Non-Labor	6,479	9,746	7,354	7,966	12,664
NSE	0	0	0	0	0
Total	8,640	11,795	9,593	10,109	14,986
FTE	23.6	21.6	22.2	20.8	23.1
djustments (Nominal \$) *	*				
Labor	-43	-233	1	0	-4
Non-Labor	-1	-581	-38	0	-29
NSE	0	0	0	0	0
Total	-44	-815	-38	0	-34
FTE	-0.3	-1.5	0.1	0.0	-0.2
Recorded-Adjusted (Noming	nal \$)				
Labor	2,117	1,815	2,240	2,143	2,318
Non-Labor	6,479	9,165	7,316	7,966	12,635
NSE	0	0	0	0	0
Total	8,596	10,980	9,556	10,109	14,953
FTE	23.4	20.1	22.4	20.9	22.8
acation & Sick (Nominal S	\$)				
Labor	359	312	425	378	409
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	359	312	425	378	409
FTE	4.2	3.6	4.3	4.1	4.3
scalation to 2021\$					
Labor	285	181	149	75	0
Non-Labor	812	832	527	609	0
NSE	0	0	0	0	0
Total	1,097	1,013	676	684	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2021\$)				
Labor	2,762	2,309	2,814	2,595	2,727
Non-Labor	7,291	9,997	7,843	8,575	12,635
NSE	0	0	0	0	0
Total	10,053	12,305	10,657	11,170	15,362
FTE	27.6	23.7	26.7	25.0	27.1

* 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.*

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Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs								
Years 2017 2018 2019 2020 2021								
Labor		-43	-233	0.873	0	-4		
Non-Labor		-0.643	-581	-38	0	-29		
NSE		0	0	0	0	0		
	Total	-44	-815	-38	0	-34		
FTE		-0.3	-1.5	0.1	0.0	-0.2		

Detail of Adjustments to Recorded:

Year	Lab	or N	Lbr NS	SE	FTE	Adi Type
2017		13	-1	0	-0.3	1-Sided Adj
Explanation:	Incremental costs that ar Memorandum Account (0	•	be requested f	or recover	y through a n	on-GRC Catastrophic Event
2017 Total	-4	13	-1	0	-0.3	
2018	-23	33 -5	581	0	-1.5	1-Sided Adj
Explanation:	Incremental costs that an Memorandum Account (0		be requested f	or recover	y through a n	on-GRC Catastrophic Event
2018 Total	-23	33 -{	581	0	-1.5	
2019		1 .	-38	0	0.1	1-Sided Adj
Explanation:	Incremental costs that ar Memorandum Account (0	•	be requested f	or recover	y through a n	on-GRC Catastrophic Event
2019 Total		1	-38	0	0.1	
2020 Total		0	0	0	0.0	
2021		0	-16	0	0.0	1-Sided Adj
Explanation:	Incremental costs that ar Memorandum Account (0	•	be requested f	or recover	y through a n	on-GRC Catastrophic Event
2021		-1	8	0	-0.1	CCTR Transf From 2200-2296.001
Explanation:	Transfer costs from Gas	Distribution to In	tegrity Manage	ement for I	DIMP orders.	
2021		-4	-21	0	-0.1	CCTR Transf From 2200-2296.001
Explanation:	Transfer costs from Gas activity.	Distribution to In	tegrity Manage	ement, Wł	KP 2TD002; o	costs incurred for DIMP
2021 Total		-4	-29	0	-0.2	

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	4. Main Maintenance
Workpaper:	2GD003.000 - Main Maintenance

RAMP Item # 1

RAMP Activity

RAMP Chapter: SCG-Risk-3 Incident Related to the Medium Pressure System (Excluding Dig-in)

RAMP Line Item ID: C09/C10/C11

RAMP Line Item Name: Pipeline Monitoring (Pipeline Patrol, Bridge & Span Inspections, Unstable Earth Inspection)

Tranche(/s): Tranche1: High Pressure Supply Lines; Tranche2: Medium Pressure Mains - Plastic & Steel

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP R (2020 Inc	ange
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	146	146	146	146	160	195
Tranche 2 Cost Estimate	83	83	83	83	160	195

Cost Estimate Changes from RAMP:

The GRC forecast is outside the RAMP range due to forecast updates.

GRC Work Unit/Activity Level Estimates

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 R Range A	
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 # of work orders issued	740.00	740.00	740.00	740.00	1,439.00	1,759.00
Tranche 2 # of work orders issued	632.00	632.00	632.00	632.00	1,439.00	1,759.00
Work Unit Changes from RAI The GRC forecast is outside th		o forecast upda	tes.			

Risk Spend Efficiency (RSE)			
	GRC RSE	RAMP RSE	
Tranche 1	0.000	0.000	
Tranche 2	0.000	0.000	

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	4. Main Maintenance
Workpaper:	2GD003.000 - Main Maintenance

RSE Changes from RAMP:

There are three different types of pipeline monitoring activities, each with a different cycle. The activities are treated as a single event for dollar and unit purposes but separately for RSE purposes to align with the different cycles. The activities have been further tranched since the RAMP filing. GRC and RAMP RSE values - (C09 Tranche 1 GRC RSE = 774 RAMP RSE = 21); (C09 Tranche 2 N/A); (C10 Tranche 1 GRC RSE = 262 RAMP RSE = 5); (C10 Tranche 2 GRC RSE = 14 RAMP RSE = 5); (C11 Tranche 1 N/A); (C11 Tranche 2 GRC RSE = 437 RAMP RSE = 105) General changes to risks scores or RSE values are primarily due to changes in the MAVF and RSE methodology, as discussed in the RAMP to GRC Integration testimony of R. Scott Pearson and Gregory S. Flores (Ex. SCG-03/SDG&E-03, Chapter 2).

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	4. Main Maintenance
Workpaper:	2GD003.000 - Main Maintenance

RAMP Item # 2

RAMP Activity

RAMP Chapter: SCG-Risk-3 Incident Related to the Medium Pressure System (Excluding Dig-in)

RAMP Line Item ID: C12

RAMP Line Item Name: Valve Inspection & Maintenance

Tranche(/s): Tranche1: High Pressure Supply Lines; Tranche2: Medium Pressure Mains - Plastic & Steel

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP R (2020 Inc	ange
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	602	602	602	602	1,215	1,475
Tranche 2 Cost Estimate	482	482	482	482	1,215	1,475

Cost Estimate Changes from RAMP:

The GRC forecast is outside the RAMP range due to forecast updates.

GRC Work Unit/Activity Level Estimates

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 R Range Ao	
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 # of work orders issued	3,715.00	3,715.00	3,715.00	3,715.00	6,830.00	8,264.00
Tranche 2 # of work orders issued	3,155.00	3,155.00	3,155.00	3,155.00	6,830.00	8,264.00
Work Unit Changes from RAM None	P:					

Risk Spend Efficiency (RSE)GRC RSERAMP RSETranche 175.000Tranche 240.000KSE Changes from RAMP:

Area:GAS DISTRIBUTIONWitness:Mario A. AguirreCategory:A. Field Operations and MaintenanceCategory-Sub:4. Main MaintenanceWorkpaper:2GD003.000 - Main Maintenance

General changes to risks scores or RSE values are primarily due to changes in the MAVF and RSE methodology, as discussed in the RAMP to GRC Integration testimony of R. Scott Pearson and Gregory S. Flores (Ex. SCG-03/SDG&E-03, Chapter 2).

Supplemental Workpapers for Workpaper 2GD003.000

Southern California Gas Company

2024 GRC - REVISED ERRATA

Non-Shared Service Workpapers

SCG-04-MAA-O&M-SUP-003

Southern California Gas Company - Gas Distribution - Witness Mario A. Aguirre Supplemental Workpaper Calculations for cost related to SB1371 leak repairs Field O&M - Main Maintenance Workgroup

Assumptions: [A] Estimated leaks to be worked through SB1371

[B] Average paving cost (Non-Labor) per order based on SB1371 historical repair costs [C] Total cost

	[A]	[B]	[C] (AxB)
	Leaks (Code 2 & 3	Average Paving Cost	
Forecast Year	Plastic)	(Non-Labor)	Total Cost
2022	339	\$ 1,133	\$ 384,087
2023	3850	\$ 1,133	\$ 4,362,050
2024	4550	\$ 1,133	\$ 5,155,150

Beginning of Workpaper 2GD004.000 - Service Maintenance

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub	5. Service Maintenance
Workpaper:	2GD004.000 - Service Maintenance

Activity Description:

Service maintenance work is generally corrective in nature and is required to keep the natural gas system operating safely and reliably. The work in this workgroup is designed to meet federal and state pipeline safety regulations and to extend the life of the distribution service pipeline system. Service maintenance work is primary comprised of meter set assembly (MSA) alterations, riser maintenance, and miscellaneous service and MSA maintenance.

Forecast Explanations:

Labor - 3-YR Average

Service Maintenance activities are designed to meet federal and state pipeline safety regulations and serve to extend the life of the Distribution service pipeline system. Using a linear forecast would either significantly overestimate or significantly underestimate the expected costs during the forecast period. A three-year average forecast methodology best reflects the expected level of costs through the forecast years.

Non-Labor - Zero-Based

Service Maintenance activities are designed to meet federal and state pipeline safety regulations and serve to extend the life of the Distribution service pipeline system. Using a linear forecast would either significantly overestimate or significantly underestimate the expected costs during the forecast period. A three-year average forecast methodology best reflects the expected level of costs through the forecast years.

For the damage credits component of this workgroup, SoCalGas used a three-year (2019 through 2021) average. This option is best suited for these activities given the unpredictability of damages – both in terms of frequency and severity – and the timing of collecting funds from third parties. Furthermore, the collection of the damage credit can occur in a different year as the damage itself. Given this uncertainty and variability, a three-year (2019 through 2021) average for damage credits was applied. These non-labor components of this zero-based forecast are shown in Supplemental Workpaper SCG-04-MAA-O&M-SUP-001.

See Supplemental Workpaper SCG-04-MAA-O&M-SUP-001 for calculation details.

NSE - 3-YR Average

NSE is not applicable to this workgroup.

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub	5. Service Maintenance
Workpaper:	2GD004.000 - Service Maintenance

Summary of Results:

	In 2021\$ (000) Incurred Costs							
		Adju	isted-Recor	ded		Ad	justed-Fored	cast
Years	2017	2018	2019	2020	2021	2022	2023	2024
Labor	6,220	6,136	4,885	4,245	4,226	4,452	4,452	4,452
Non-Labor	2,089	5,575	-1,425	1,518	1,563	552	552	552
NSE	0	0	0	0	0	0	0	0
Total	8,309	11,711	3,460	5,763	5,790	5,004	5,004	5,004
FTE	64.6	64.3	47.8	41.3	42.8	44.0	44.0	44.0

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	5. Service Maintenance
Workpaper:	2GD004.000 - Service Maintenance

Summary of Adjustments to Forecast:

	In 2021 \$(000) Incurred Costs										
Forecas	Forecast Method Base Forecast			Forecast Adjustments			Adjusted-Forecast				
Year	'S	2022	2023	2024	2022	2023	2024	2022	2023	2024	
Labor	3-YR Average	4,452	4,452	4,452	0	0	0	4,452	4,452	4,452	
Non-Labor	Zero-Based	0	0	0	552	552	552	552	552	552	
NSE	3-YR Average	0	0	0	0	0	0	0	0	0	
Tota	Total		4,452	4,452	552	552	552	5,004	5,004	5,004	
FTE	3-YR Average	44.0	44.0	44.0	0.0	0.0	0.0	44.0	44.0	44.0	

Forecast Adjustment Details:

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>					
2022	0	552	0	552	0.0	1-Sided Adj					
Explanation:	Forecast methodology for Service Maintenance non-labor. Forecasted using a three-year average for the non-labor excluding damage credits. The three-year average of the damage credits was then										

applied to the non-labor forecast.

See Supplemental Workpaper for calculation details.

2022 Total	0	552	0	552	0.0	
2023	0	552	0	552	0.0	1-Sided Adj

Explanation: Forecast methodology for Service Maintenance non-labor. Forecasted using a three-year average for the non-labor excluding damage credits. The three-year average of the damage credits was then applied to the non-labor forecast.

See Supplemental Workpaper for calculation details.

2023 Total	0	552	0	552	0.0	
2024	0	552	0	552	0.0	1-Sided Adj
Explanation:	Forecast methodolo the non-labor exclud applied to the non-la See Supplemental V	ling damage credits bor forecast.	s. The three	-year average	•	three-year average for e credits was then
2024 Total	0	552	0	552	0.0	

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	5. Service Maintenance
Workpaper:	2GD004.000 - Service Maintenance

Determination of Adjusted-Recorded (Incurred Costs):

etermination of Aujusted-K	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
ecorded (Nominal \$)*					
Labor	4,878	5,295	3,890	3,506	3,593
Non-Labor	1,858	5,160	-1,163	1,410	1,638
NSE	0	0	0	0	0
Total	6,736	10,454	2,727	4,916	5,231
FTE	55.5	57.7	40.2	34.6	36.0
djustments (Nominal \$) **					
Labor	-109	-471	-2	-2	-1
Non-Labor	-2	-49	-165	0	-75
NSE	0	0	0	0	0
Total	-111	-520	-167	-2	-76
FTE	-0.7	-3.1	-0.1	-0.1	-0.1
Recorded-Adjusted (Nominal	\$)				
Labor	4,769	4,824	3,888	3,505	3,592
Non-Labor	1,857	5,111	-1,329	1,410	1,563
NSE	0	0	0	0	0
Total	6,626	9,935	2,559	4,915	5,156
FTE	54.9	54.6	40.1	34.5	35.9
acation & Sick (Nominal \$)					
Labor	808	830	737	618	634
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	808	830	737	618	634
FTE	9.7	9.7	7.7	6.8	6.9
scalation to 2021\$					
Labor	643	482	259	123	0
Non-Labor	233	464	-96	108	0
NSE	0	0	0	0	0
Total	875	946	164	230	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Constant	2021\$)				
Labor	6,220	6,136	4,885	4,245	4,226
Non-Labor	2,089	5,575	-1,425	1,518	1,563
NSE	0	0	0	0	0
Total	8,309	11,711	3,460	5,763	5,790
FTE	64.6	64.3	47.8	41.3	42.8

* 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.*

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	5. Service Maintenance
Workpaper:	2GD004.000 - Service Maintenance

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs									
Years 2017 2018 2019 2020 2021									
Labor		-109	-471	-2	-2	-0.817			
Non-Labor		-2	-49	-165	0	-75			
NSE		0	0	0	0	0			
	Total	-111	-520	-167	-2	-76			
FTE		-0.7	-3.1	-0.1	-0.1	-0.1			

Detail of Adjustments to Recorded:

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>		
2017	-109	-2	0	-0.7	1-Sided Adj		
Explanation:	Incremental costs that are an Memorandum Account (CEN		equested for r	ecovery thro	ough a non-GRC Catastrophic Event		
2017 Total	-109	-2	0	-0.7			
2018	-471	-49	0	-3.1	1-Sided Adj		
Explanation:	 Incremental costs that are anticipated to be requested for recovery through a non-GRC Catastrophic Event Memorandum Account (CEMA). 						
2018 Total	-471	-49	0	-3.1			
2019	-2	-165	0	-0.1	1-Sided Adj		
Explanation:	Incremental costs that are an Memorandum Account (CEN	-	equested for r	ecovery thro	ough a non-GRC Catastrophic Event		
2019 Total	-2	-165	0	-0.1			
2020	-2	0	0	-0.1	1-Sided Adj		
Explanation:	Incremental costs that are an Memorandum Account (CEN	•	equested for r	ecovery thro	ough a non-GRC Catastrophic Event		
2020 Total	-2	0	0	-0.1			
2021	-1	-75	0	-0.1	CCTR Transf From 2200-2296.001		
Explanation:	Transfer costs from Gas Dis activity.	ribution to Integri	ity Managemo	ent, WKP 2T	D002; costs incurred for DIMP		
2021 Total	-1	-75	0	-0.1			

Supplemental Workpapers for Workpaper 2GD004.000

SCG-04-MAA-O&M-SUP-001 Southern California Gas Company - Gas Distribution - Witness Mario A. Aguirre Supplemental Workpaper Calculations for Field O&M Service Maintenance Base Forecast for Non-Labor Field O&M - Service Maintenance Workgroup

Calculation of Average Damage Credits applied to Non-Labor to determine the total forecast for Service Maintenance

SoCalGas has experienced a wide variation in the damage credits applied to the Service Maintenance workgroup; therefore, an average forecasting methodology was used on the Damage Credits and then applied to the Non-Labor forecast. To accurately reflect the forecast, a three-year average was used on the labor and non-labor excluding damage credits. The three-year average of the damage credits was then applied to the non-labor forecast. The tables below show these calculations.

[H] Shows the Zero-Based Non-Labor Base Forecast

Historical Data

	Historical Dollars (1000s/With V&S in 2021\$)	2017	2018	2019	2020	2021
[A]]	Field O&M - Service Maintenance - Labor	\$ 6,220	\$ 6,136	\$ 4,885	\$ 4,245	\$ 4,226
[B]]	Field O&M - Service Maintenance - Non Labor	\$ 2,089	\$ 5,575	\$ (1,425)	\$ 1,518	\$ 1,563
[C]]	Field O&M - Service Maintenance Non- Labor Damage Credits	\$ (1,389)	\$ 5,214	\$ (1,579)	\$ (885)	\$ (2,376)
	Field O&M - Service Maintenance - Non-Labor Excluding Damage Credits([B]-[C})	\$ 3,478	\$ 361	\$ 155	\$ 2,403	\$ 3,939

3 Year Average of Damage Credits \$

(1,614)

		3Yr Average for Labor / Base for Non-Labor		
		2022	2023	2024
[E] 3-Yr Avg of A	Labor	\$ 4,452	\$ 4,452	\$ 4,452
[F] 3-Yr Avg of D	Non-Labor Excluding Damage Credits	\$ 2,166	\$ 2,166	\$ 2,166
[G] 3-Yr Avg of C	Non-Labor Damage Credits	\$ (1,614)	\$ (1,614)	\$ (1,614)
[H] Sum of F and G	Non-Labor Subtotal	\$ 552	\$ 552	\$ 552
[I] Sum of E and H	Total Base Forecast	\$ 5,004	\$ 5,004	\$ 5,004

Amounts are shown in thousands of 2021 dollars and include vacation and sick.

Beginning of Workpaper 2GD005.000 - Tools Fittings & Materials

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub	6. Tools Fittings & Materials
Workpaper:	2GD005.000 - Tools Fittings & Materials

Activity Description:

Recorded to this workgroup is the purchase of small tools, small pipe fittings, miscellaneous pipeline materials, and miscellaneous installation materials used during construction and maintenance activities and those held in inventory as vehicle truck stock. These materials are necessary to obtain complete and safe work results. Included within each category of materials are items such as small tools – screwdrivers, wrenches, etc., small pipe fittings – couplings, ells, nipples, etc., miscellaneous pipeline materials – bolts, stakes, pipe straps, traffic vests, etc., and miscellaneous installation materials – cold patch asphalt, pre-mixed concrete, etc. Also recorded to this workgroup are expenses for the rental and laundering of uniforms.

Forecast Explanations:

Labor - 3-YR Linear

Spending on Tools, Fittings, and Materials is driven by the increase in construction and maintenance work reflected in other workgroups of this testimony, as well as the increase in workforce needed to complete this work. Given the requirement to support an overall increase in construction and maintenance activities, increased regulatory pressures, as well as Gas Distribution workforce, and an assessment of historical expense in this workgroup, SoCalGas used a three-year (2019 through 2021) historical linear trend to forecast the non-labor needs for tools, fittings and materials.

Non-Labor - 3-YR Linear

Spending on Tools, Fittings, and Materials is driven by the increase in construction and maintenance work reflected in other workgroups of this testimony, as well as the increase in workforce needed to complete this work. Given the requirement to support an overall increase in construction and maintenance activities, increased regulatory pressures, as well as Gas Distribution workforce, and an assessment of historical expense in this workgroup, SoCalGas used a three-year (2019 through 2021) historical linear trend to forecast the non-labor needs for tools, fittings and materials.

NSE - 3-YR Linear

NSE is not applicable to this workgroup

Summary of Results:

]	In 2021\$ (000) Incurred Costs									
		Adju	isted-Recor	ded		Ad	Adjusted-Forecast			
Years	2017	2018	2019	2020	2021	2022	2023	2024		
Labor	3	4	1	33	6	18	20	23		
Non-Labor	11,688	10,256	17,855	19,544	20,549	22,010	23,358	24,704		
NSE	0	0	0	0	0	0	0	0		
Total	11,691	10,260	17,856	19,578	20,555	22,028	23,378	24,727		
FTE	0.0	0.0	0.0	0.4	0.0	0.1	0.1	0.1		

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	6. Tools Fittings & Materials
Workpaper:	2GD005.000 - Tools Fittings & Materials

Summary of Adjustments to Forecast:

	In 2021 \$(000) Incurred Costs									
Forecast Method Base Forecast				st	Forec	ast Adjust	ments	Adjusted-Forecast		
Years	5	2022 2023 2024		2022	22 2023 2024		2022	2023	2024	
Labor	3-YR Linear	18	21	23	0	0	0	18	21	23
Non-Labor	3-YR Linear	22,010	23,358	24,705	0	0	0	22,010	23,358	24,705
NSE	3-YR Linear	0	0	0	0	0	0	0	0	0
Tota	I	22,029	23,378	24,728	0	0	0	22,029	23,378	24,728
FTE	3-YR Linear	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	6. Tools Fittings & Materials
Workpaper:	2GD005.000 - Tools Fittings & Materials

Determination of Adjusted-Recorded (Incurred Costs):

·····,	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	3	3	1	27	5
Non-Labor	10,386	9,403	16,655	18,157	20,549
NSE	0	0	0	0	0
Total	10,389	9,406	16,656	18,184	20,554
FTE	0.0	0.0	0.0	0.3	0.0
djustments (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
Recorded-Adjusted (Nominal S	\$)				
Labor	3	3	1	27	5
Non-Labor	10,386	9,403	16,655	18,157	20,549
NSE	0	0	0	0	0
Total	10,389	9,406	16,656	18,184	20,554
FTE	0.0	0.0	0.0	0.3	0.0
acation & Sick (Nominal \$)					
Labor	0	0	0	5	1
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	5	1
FTE	0.0	0.0	0.0	0.1	0.0
scalation to 2021\$					
Labor	0	0	0	1	0
Non-Labor	1,302	853	1,200	1,388	0
NSE	0	0	0	0	0
Total	1,302	854	1,200	1,389	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Constant	2021\$)				
Labor	3	4	1	33	6
Non-Labor	11,688	10,256	17,855	19,544	20,549
NSE	0	0	0	0	0
Total	11,691	10,260	17,856	19,578	20,555
FTE	0.0	0.0	0.0	0.4	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 DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	6. Tools Fittings & Materials
Workpaper:	2GD005.000 - Tools Fittings & Materials

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	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				

Year	Labor	<u>NLbr</u>	NSE	<u>FTE</u>	Adj Type

Beginning of Workpaper 2GD006.000 - Leakage

Area:GAS DISTRIBUTIONWitness:Mario A. AguirreCategory:A. Field Operations and MaintenanceCategory-Sub7. LeakageWorkpaper:2GD006.000 - Leakage

Activity Description:

Leakage work is required to keep the natural gas system operating safely and reliably. The work in this workgroup is designed to meet federal, i.e., 49 CFR 192, and state, i.e. CPUC General Order 112-F, Pipeline safety regulations and to extend the life of Distribution main and service pipelines. Leakage work is primarily comprised of leak evaluations, main leak repairs, service leak repairs, meter set assembly (MSA) leak repairs, and service alterations.

Forecast Explanations:

Labor - Base YR Rec

Over the last several years, SoCalGas has been accelerating the rate of leak repairs and decreasing the time frame from identifying leaks to repairing leaks. As such, the number of leaks repaired per year has been increasing. SoCalGas expects the number of leaks repaired per year to remain fairly level at current levels over the forecast period. Therefore, a base year forecast method was used to forecast the base level of future expense. SoCalGas has been increasing its efforts to mitigate methane emissions through the SB1371 Emissions Strategy Program (ESP). ESP is accelerating their leak abatement efforts, which will have an effect on the base O&M costs in the workgroup. As such, SoCalGas has reduced costs to reflect the efforts of the ESP program. These labor and non-labor components of this zero-based forecast are shown in Supplemental Workpaper SCG-04-MAA-O&M-SUP-004.

See Supplemental Workpaper SCG-04-MAA-O&M-SUP-004 for calculation details.

Non-Labor - Zero-Based

Over the last several years, SoCalGas has been accelerating the rate of leak repairs and decreasing the time frame from identifying leaks to repairing leaks. As such, the number of leaks repaired per year has been increasing. SoCalGas expects the number of leaks repaired per year to remain fairly level at current levels over the forecast period. Therefore, a base year forecast method was used to forecast the base level of future expense. SoCalGas has been increasing its efforts to mitigate methane emissions through the SB1371 Emissions Strategy Program (ESP). ESP is accelerating their leak abatement efforts, which will have an effect on the base O&M costs in the workgroup. As such, SoCalGas has reduced costs to reflect the efforts of the ESP program. These labor and non-labor components of this zero-based forecast are shown in Supplemental Workpaper SCG-04-MAA-O&M-SUP-004.

For the damage credits component of this workgroup, SoCalGas used a five-year (2017 through 2021) average. This option is best suited for these activities given the unpredictability of damages – both in terms of frequency and severity – and the timing of collecting funds from third parties. Furthermore, the collection of the damage credit can occur in a different year as the damage itself. Given this uncertainty and variability, a five-year (2017 through 2021) average for damage credits was applied. These non-labor components of this zero-based forecast are shown in Supplemental Workpaper SCG-04-MAA-O&M-SUP-002.

See Supplemental Workpaper SCG-04-MAA-O&M-SUP-002 for calculation details. See Supplemental Workpaper SCG-04-MAA-O&M-SUP-004 for calculation details.

NSE - Base YR Rec

NSE is not applicable to this workgroup.

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub	7. Leakage
Workpaper:	2GD006.000 - Leakage

Summary of Results:

Γ	In 2021\$ (000) Incurred Costs								
	Adjusted-Recorded					Adjusted-Forecast			
Years	2017	2018	2019	2020	2021	2022	2023	2024	
Labor	19,929	20,968	21,343	20,695	19,347	18,882	14,054	13,092	
Non-Labor	2,794	-1,566	2,078	4,730	6,290	5,563	4,362	4,123	
NSE	0	0	0	0	0	0	0	0	
Total	22,723	19,402	23,421	25,425	25,638	24,445	18,416	17,215	
FTE	167.7	182.1	160.8	157.5	152.0	149.1	120.2	115.8	

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	7. Leakage
Workpaper:	2GD006.000 - Leakage

Summary of Adjustments to Forecast:

In 2021 \$(000) Incurred Costs										
Forecas	t Method	Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Year	s	2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	Base YR Rec	19,347	19,347	19,347	-466	-5,294	-6,256	18,881	14,053	13,091
Non-Labor	Zero-Based	0	0	0	5,563	4,362	4,123	5,563	4,362	4,123
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Tota	al	19,347	19,347	19,347	5,097	-932	-2,133	24,444	18,415	17,214
FTE	Base YR Rec	152.0	152.0	152.0	-2.9	-31.8	-36.2	149.1	120.2	115.8

Forecast Adjustment Details:

<u>Year</u>	Labor	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>			
2022	-466	-116	0	-582	-2.9	1-Sided Adj			
Explanation:	Adjustment to show RAMP costs for RAMP activity Chapter 3 Medium Pressure Incident, C17 Main and Service Leak Repair. Including adjustment to account for costs associated to SB1371 leak repair acceleration. \$24,108,000 (RAMP Base) - \$582,000 (SB 1371 reduction) = 23,526,000. See Supplemental Workpaper for calculation details.								
2022	0	5,679	0	5,679	0.0	1-Sided Adj			
Explanation:	Forecast methodology for Leakage non-labor. Forecasted using a base year for the non-labor excluding damage credits. The five-year average of the damage credits was then applied to the non-labor forecast. See Supplemental Workpaper for calculation details.								
2022 Total	-466	5,563	0	5,097	-2.9				
2023	-5,294	-1,317	0	-6,611	-31.8	1-Sided Adj			
Explanation:	Adjustment to show RAMP costs for RAMP activity Chapter 3 Medium Pressure Incident, C17 Main and Service Leak Repair. Including adjustment to account for costs associated to SB1371 leak repair acceleration. \$24,108,000 (RAMP Base) - \$6,610,000 (SB 1371 reduction) = 17,498,000.								
	acceleration.	-				to SB1371 leak repair			
	acceleration.	se) - \$6,610,0	00 (SB 1371 i	reduction) = 1		to SB1371 leak repair			
2023	acceleration. \$24,108,000 (RAMP Ba	se) - \$6,610,0	00 (SB 1371 i	reduction) = 1		to SB1371 leak repair 1-Sided Adj			
2023 Explanation:	acceleration. \$24,108,000 (RAMP Bas See Supplemental Work	se) - \$6,610,0 paper for calc 5,679 or Leakage no s. The five-y	00 (SB 1371 i culation details 0 on-labor. Fore ear average o	reduction) = 1 5. 5,679 ecasted using f the damage	17,498,000. 0.0 a base year fo	1-Sided Adj r the non-labor			
	acceleration. \$24,108,000 (RAMP Bas See Supplemental Work 0 Forecast methodology for excluding damage credit non-labor forecast.	se) - \$6,610,0 paper for calc 5,679 or Leakage no s. The five-y	00 (SB 1371 i culation details 0 on-labor. Fore ear average o	reduction) = 1 5. 5,679 ecasted using f the damage	17,498,000. 0.0 a base year fo	1-Sided Adj r the non-labor			

Area:	GAS DISTRIBUTION							
Witness:	Mario A. Aguirre							
Category:	A. Field Operations and Maintenance							
Category-Sub:	7. Leakage							
Workpaper:	2GD006.000 - Leakag	je						
<u>Year</u>	Labor	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	Adj_Type		
Explanation:	Adjustment to show RAMF and Service Leak Repair. acceleration. \$24,107,000 (RAMP Base See Supplemental Workpa	Including adjus) - \$7,812,000	stment to ac	eduction) = 16,	associated to			
2024	0	5,679	0	5,679	0.0	1-Sided Adj		
Explanation:	Forecast methodology for Leakage non-labor. Forecasted using a base year for the non-labor excluding damage credits. The five-year average of the damage credits was then applied to the non-labor forecast. See Supplemental Workpaper for calculation details.							
2024 Total	-6,256	4,123	0	-2,133	-36.2			

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	7. Leakage
Workpaper:	2GD006.000 - Leakage

Determination of Adjusted-Recorded (Incurred Costs):

·····,····	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
ecorded (Nominal \$)*					
Labor	15,280	16,495	16,993	17,086	16,445
Non-Labor	2,483	-1,402	1,941	4,394	6,290
NSE	0	0	0	0	0
Total	17,763	15,093	18,933	21,480	22,735
FTE	142.4	154.5	134.7	131.7	127.9
djustments (Nominal \$) *	*				
Labor	0	-12	-4	0	0
Non-Labor	0	-33	-3	0	0
NSE	0	0	0	0	0
Total	0	-45	-7	0	0
FTE	0.0	-0.1	-0.1	0.0	0.0
ecorded-Adjusted (Noming	nal \$)				
Labor	15,280	16,483	16,988	17,086	16,445
Non-Labor	2,482	-1,435	1,938	4,394	6,290
NSE	0	0	0	0	0
Total	17,763	15,048	18,927	21,480	22,735
FTE	142.5	154.4	134.7	131.7	127.9
acation & Sick (Nominal S	\$)				
Labor	2,590	2,837	3,221	3,011	2,903
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	2,590	2,837	3,221	3,011	2,903
FTE	25.2	27.7	26.1	25.8	24.1
scalation to 2021\$					
Labor	2,059	1,648	1,133	598	0
Non-Labor	311	-130	140	336	0
NSE	0	0	0	0	0
Total	2,370	1,518	1,273	934	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2021\$)				
Labor	19,929	20,968	21,343	20,695	19,347
Non-Labor	2,794	-1,566	2,078	4,730	6,290
NSE	0	0	0	0	0
Total	22,723	19,402	23,421	25,425	25,638
FTE	167.7	182.1	160.8	157.5	152.0

* 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 DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	7. Leakage
Workpaper:	2GD006.000 - Leakage

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs							
	Years	2017	2018	2019	2020	2021	
Labor		0	-12	-4	0	0	
Non-Labor		-0.257	-33	-3	0	0	
NSE		0	0	0	0	0	
	Total	-0.257	-45	-7	0	0	
FTE		0.0	-0.1	-0.1	0.0	0.0	

Detail of Adjustments to Recorded:

Year	Labor	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type	
2017	0	0	0	0.0	1-Sided Adj	
Explanation:	Incremental costs that are and Memorandum Account (CEM	•	quested for re	ecovery thro	ugh a non-GRC Catastrophic Ever	nt
2017 Total	0	0	0	0.0		
2018	-12	-33	0	-0.1	1-Sided Adj	
Explanation:	Incremental costs that are and Memorandum Account (CEM	•	quested for re	ecovery thro	ugh a non-GRC Catastrophic Ever	nt
2018 Total	-12	-33	0	-0.1		
2019	-4	-3	0	-0.1	1-Sided Adj	
Explanation:	Incremental costs that are and Memorandum Account (CEM/	•	quested for re	ecovery thro	ugh a non-GRC Catastrophic Ever	nt
2019 Total	-4	-3	0	-0.1		
2020 Total	0	0	0	0.0		
2021 Total	0	0	0	0.0		

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	7. Leakage
Workpaper:	2GD006.000 - Leakage

RAMP Item # 1

RAMP Activity

RAMP Chapter: SCG-Risk-3 Incident Related to the Medium Pressure System (Excluding Dig-in)

RAMP Line Item ID: C17

RAMP Line Item Name: Main & Service Leak Repair

Tranche(/s): Tranche1: High Pressure Supply Lines; Tranche2: Medium Pressure Mains - Plastic & Steel; Tranche3: Medium Pressure Service - Plastic & Steel

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP Range (2020 Incurred \$)		
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High	
Tranche 1 Cost Estimate	723	723	723	723	12,840	15,695	
Tranche 2 Cost Estimate	12,394	12,086	8,891	8,254	12,840	15,695	
Tranche 3 Cost Estimate	10,991	10,717	7,884	7,319	12,840	15,695	

Cost Estimate Changes from RAMP:

The GRC forecast is outside the RAMP range due to forecast updates.

GRC Work Unit/Activity Level Estimates

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP Range Activities		
Measure	Activities	Activities	Activities	Activities	Low	High	
Tranche 1 # of orders	454.00	454.00	454.00	454.00	30,022.00	36,694.00	
Tranche 2 # of orders	14,547.00	14,414.00	13,041.00	12,767.00	30,022.00	36,694.00	
Tranche 3 # of orders	22,635.00	22,429.00	20,291.00	19,865.00	30,022.00	36,694.00	
Work Unit Changes from RAMP None	<u>.</u>						

Risk Spend Efficiency (RSE)			
	GRC RSE	RAMP RSE	
Tranche 1	0.350	23.200	
Tranche 2	6.200	23.200	

Tranche 3		6.200	23.200
Workpaper:	2GD006.000 - Leakage		
Category-Sub:	7. Leakage		
Category:	A. Field Operations and Mainter	nance	
Witness:	Mario A. Aguirre		
Area:	GAS DISTRIBUTION		

RSE Changes from RAMP:

General changes to risks scores or RSE values are primarily due to changes in the MAVF and RSE methodology, as discussed in the RAMP to GRC Integration testimony of R. Scott Pearson and Gregory S. Flores (Ex. SCG-03/SDG&E-03, Chapter 2). For RSE purposes SCG-Risk-3-C08-Tranche 1 & C17-Tranche 1 are combined. For RSE purposes SCG-Risk-3-C08-Tranche 2 & C17-Tranche 3 are combined.

Supplemental Workpapers for Workpaper 2GD006.000

Southern California Gas Company 2024 GRC - REVISED ERRATA Non-Shared Service Workpapers SCG-04-MAA-O&M-SUP-002 Southern California Gas Company - Gas Distribution - Witness Mario A. Aguirre Supplemental Workpaper Calculations for Field O&M Leakage Base Forecast for Non-Labor Field O&M - Leakage Workgroup

Calculation of Average Damage Credits applied to Non-Labor to determine the total forecast for Leakage Workgroup

SoCalGas has experienced a wide variation in the damage credits applied to the Leakage workgroup; therefore, an average forecasting methodology was used on the Damage Credits and then applied to the Non-Labor forecast. To accurately reflect the forecast, a base year recorded was used on the labor and non-labor excluding damage credits. The five-year average of the damage credits was then applied to the non-labor forecast. The tables below show these calculations.

[H] Shows the Zero-Based Non-Labor Base Forecast

Historical Data

Historical Dollars (1000s/With V&S in 2021\$)	2017	2018	2019	2020	2021
[A] Field O&M - Leakage - Labor	\$ 19,929	\$ 20,968	\$ 21,343	\$ 20,695	\$ 19,347
[B] Field O&M - Leakage - Non Labor	\$ 2,794	\$ (1,566)	\$ 2,078	\$ 4,730	\$ 6,290
[C] Field O&M - Leakage - Non-Labor Damage Credits	\$ (2,333)	\$ (6,263)	\$ (2,974)	\$ (1,979)	\$ (2,623)
[D] Field O&M - Leakage - Non-Labor Excluding Damage Credits([B]-[C})	\$ 5,126	\$ 4,698		\$ 6,709	

5 Year Average of Damage Credits

(3,234)

		Base Year for Labor / Zero Base for Non-Labor			
		2022	2023	2024	
[E] Base Year of A	Labor	\$ 19,347	\$ 19,347	\$ 19,347	
[F] Base Year of D	Non-Labor Excluding Damage Credits	\$ 8,913	\$ 8,913	\$ 8,913	
[G] 5-Year Average of C	Non-Labor Damage Credits	\$ (3,234)	\$ (3,234)	\$ (3,234)	
[H] Sum of F and G	Non-Labor Subtotal	\$ 5,679	\$ 5,679	\$ 5,679	
[I] Sum of E and H	Total Base Forecast	\$ 25,026	\$ 25,026	\$ 25,026	

Amounts are shown in thousands of 2021 dollars and include vacation and sick.

\$

Southern California Gas Company

2024 GRC - REVISED ERRATA

Non-Shared Service Workpapers

SCG-04-MAA-O&M-SUP-004

Southern California Gas Company - Gas Distribution - Witness Mario A. Aguirre Supplemental Workpaper Calculations for cost related to SB1371 leak repairs Field O&M - Leakage Workgroup

Assumptions: [A] Estimated leaks to be worked through SB1371

[B] Average direct labor cost per order based on SB1371 historical repair costs

[C] Total labor direct costs

[D] V&S factor 2021

[E] Estimated total V&S costs

[F] Total labor costs including V&S

[G] Average Non-Labor cost per order base on SB1371 historical repair costs

[H] Total Non-Labor Cost

[I] Total cost

	[A]	[B]	[C] (AxB)	[D]	[E] (CxD)	[F] (C+E)	[G]	[H] (AxG)	[I] (F+H)
	Leaks (Code 2	Average Labor	Total Labor				Average Non-	Total Non-	
Forecast Year	& 3 Plastic)	(Direct Cost)	(Direct Cost)	V&S	Total V&S	Total Labor w/V&S	Labor Cost	Labor Cost	Total Cost
2022	339	\$ 1,169	\$ 396,291	0.1765	\$ 69,945.36	\$ 466,236.36	\$ 342	\$ 115,938	\$ 582,174
2023	3850	\$ 1,169	\$ 4,500,650	0.1765	\$ 794,364.73	\$ 5,295,014.73	\$ 342	\$ 1,316,700	\$ 6,611,715
2024	4550	\$ 1,169	\$ 5,318,950	0.1765	\$ 938,794.68	\$ 6,257,744.68	\$ 342	\$ 1,556,100	\$ 7,813,845

Beginning of Workpaper 2GD007.000 - Measurement & Regulation

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub	8. Measurement & Regulation
Workpaper:	2GD007.000 - Measurement & Regulation

Activity Description:

Recorded to this workgroup are labor and non-labor expenses for maintaining and operating regulator stations, medium and large Meter Set Assemblies (MSAs), and associated components. Measurement and Regulation activities focus primarily on maintaining and operating approximately 1,975 regulator stations and approximately 102,000 medium and large customer MSAs in the SoCalGas service territory. Regulator stations reduce the pressure of gas entering the distribution system from high-pressure pipelines to provide the lower pressures used on the distribution pipeline system. Medium and large customer MSAs require routine maintenance of the meters, regulators, and other components to meet customers' capacity requirements and to measure gas volume accurately.

Forecast Explanations:

Labor - Base YR Rec

SoCalGas evaluated the historical expenditures for 2017 through 2021 for the Measurement and Regulation (M&R) workgroup. The expenses in this workgroup are mostly maintenance in nature and are based on the current assets in the system. For this reason, SoCalGas considers the most recent activity level to be representative of future spending in this work category. Therefore, a base year forecast method was used to forecast the base expenditures for this workgroup. Control Center Modernization (CCM) is a new activity that will begin during the forecast years. The Measurement and Regulation workgroup will incur additional costs associated to the CCM project. These costs are incrementally added to the base year forecast for the workpaper.

Non-Labor - Base YR Rec

SoCalGas evaluated the historical expenditures for 2017 through 2021 for the Measurement and Regulation (M&R) workgroup. The expenses in this workgroup are mostly maintenance in nature and are based on the current assets in the system. For this reason, SoCalGas considers the most recent activity level to be representative of future spending in this work category. Therefore, a base year forecast method was used to forecast the base expenditures for this workgroup. Control Center Modernization (CCM) is a new activity that will begin during the forecast years. The Measurement and Regulation workgroup will incur additional costs associated to the CCM project. These costs are incrementally added to the base year forecast for the workpaper.

NSE - Base YR Rec

NSE is not applicable to this workgroup.

Summary of Results:

]	In 2021\$ (000) Incurred Costs											
		Adju	isted-Recor	Adjusted-Forecast								
Years	2017	2018	2019	2020	2021	2022	2023	2024				
Labor	8,589	9,173	9,772	8,776	8,790	8,840	9,156	9,506				
Non-Labor	2,405	1,969	1,448	2,419	1,612	1,614	1,630	1,645				
NSE	0	0	0	0	0	0	0	0				
Total	10,994	11,142	11,220	11,195	10,402	10,454	10,786	11,151				
FTE	82.3	85.7	89.8	80.4	81.0	81.5	84.4	87.6				

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	8. Measurement & Regulation
Workpaper:	2GD007.000 - Measurement & Regulation

Summary of Adjustments to Forecast:

	In 2021 \$(000) Incurred Costs											
Forecas	t Method	Base Forecast			Forecast Adjustments			Adjusted-Forecast				
Years		2022	2023	2024	2022	2023	2024	2022	2023	2024		
Labor	Base YR Rec	8,790	8,790	8,790	49	365	715	8,839	9,155	9,505		
Non-Labor	Base YR Rec	1,612	1,612	1,612	2	18	33	1,614	1,630	1,645		
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0		
Total		10,402	10,402	10,402	51	383	748	10,453	10,785	11,150		
FTE	Base YR Rec	81.0	81.0	81.0	0.5	3.4	6.6	81.5	84.4	87.6		

Forecast Adjustment Details:

Year	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	Adj Type	
2022	49	2	0	51	0.5	1-Sided Adj	
Explanation:	Adjustment to show incre Control Center Moderniz		o account for	the incremer	ntal activities a	ssociated to the new	
2022 Total	49	2	0	51	0.5		
2023	365	18	0	383	3.4	1-Sided Adj	
Explanation:	Adjustment to show incre Control Center Moderniz		o account for	the incremer	ntal activities a	ssociated to the new	
2023 Total	365	18	0	383	3.4		
2024	715	33	0	748	6.6	1-Sided Adj	
Explanation:	Adjustment to show incre Control Center Moderniz		o account for	the incremer	ntal activities a	ssociated to the new	
2024 Total	715	33	0	748	6.6		

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	8. Measurement & Regulation
Workpaper:	2GD007.000 - Measurement & Regulation

Determination of Adjusted-Recorded (Incurred Costs):

· · · · · · · · · · · · · · · · · · ·	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	6,587	7,221	7,779	7,246	7,667
Non-Labor	2,137	1,806	1,351	2,247	1,612
NSE	0	0	0	0	0
Total	8,724	9,027	9,130	9,493	9,278
FTE	70.0	72.7	75.3	67.2	69.7
djustments (Nominal \$) **	*				
Labor	-2	-10	-1	0	-195
Non-Labor	0	-1	0	0	0
NSE	0	0	0	0	0
Total	-2	-11	-1	0	-195
FTE	-0.1	-0.1	-0.1	0.0	-1.5
Recorded-Adjusted (Nomin	nal \$)				
Labor	6,586	7,211	7,778	7,246	7,471
Non-Labor	2,137	1,805	1,351	2,247	1,612
NSE	0	0	0	0	0
Total	8,723	9,016	9,129	9,493	9,083
FTE	69.8	72.6	75.2	67.3	68.2
/acation & Sick (Nominal \$	\$)				
Labor	1,116	1,241	1,475	1,277	1,319
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	1,116	1,241	1,475	1,277	1,319
FTE	12.5	13.1	14.6	13.1	12.8
Escalation to 2021\$					
Labor	887	721	519	254	0
Non-Labor	268	164	97	172	0
NSE	0	0	0	0	0
Total	1,155	885	616	425	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Consta	ant 2021\$)				
Labor	8,589	9,173	9,772	8,776	8,790
Non-Labor	2,405	1,969	1,448	2,419	1,612
NSE	0	0	0	0	0
Total	10,994	11,142	11,220	11,195	10,402
FTE	82.3	85.7	89.8	80.4	81.0

* 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 DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	8. Measurement & Regulation
Workpaper:	2GD007.000 - Measurement & Regulation

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs						
	Years	2017	2018	2019	2020	2021
Labor		-2	-10	-0.554	0	-195
Non-Labor		-0.007	-0.830	0	0	-0.080
NSE		0	0	0	0	0
	Total	-2	-11	-0.554	0	-195
FTE		-0.1	-0.1	-0.1	0.0	-1.5

Detail of Adjustments to Recorded:

<u>Year</u>	Labo	or <u>NLb</u>	<u>r NSE</u>	<u>FTE</u>	<u>Adj Type</u>
2017	-2	2 0	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are Memorandum Account (C	-	requested for	recovery thre	ough a non-GRC Catastrophic Event
2017 Total	-1	2 0	0	-0.1	
2018	-10) -1	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are Memorandum Account (C	•	requested for	recovery thre	ough a non-GRC Catastrophic Event
2018 Total	-10) -1	0	-0.1	
2019	-	I 0	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are Memorandum Account (C	•	requested for	recovery thre	ough a non-GRC Catastrophic Event
2019 Total	-	1 0	0	-0.1	
2020 Total) 0	0	0.0	
2021	-19	5 0	0	-1.5	CCTR Transf From 2200-2296.001
Explanation:	Transfer costs from Gas I activity.	Distribution to Integ	rity Managem	ent, WKP 2 ⁻	TD002; costs incurred for DIMP
2021 Total	-19	5 0	0	-1.5	

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	8. Measurement & Regulation
Workpaper:	2GD007.000 - Measurement & Regulation

RAMP Item # 1

RAMP Activity

RAMP Chapter: SCG-Risk-3 Incident Related to the Medium Pressure System (Excluding Dig-in)

RAMP Line Item ID: C04

RAMP Line Item Name: Meter & Regulator (M&R) Station and Electronic Pressure Monitors (EPM) Inspection and Maintenance

Tranche(/s): Tranche1: High Pressure Supply Lines; Tranche2: Medium Pressure Mains - Plastic & Steel

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP R (2020 Inc	ange
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	720	720	720	720	3,395	4,150
Tranche 2 Cost Estimate	3,522	3,522	3,522	3,522	3,395	4,150

Cost Estimate Changes from RAMP:

The GRC forecast is outside the RAMP range due to forecast updates.

GRC Work Unit/Activity Level Estimates

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 F Range A	
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 # of work orders issued	1,355.00	1,355.00	1,355.00	1,355.00	9,830.00	12,015.00
Tranche 2 # of work orders issued	6,274.00	6,274.00	6,274.00	6,274.00	9,830.00	12,015.00
Work Unit Changes from RAI The GRC forecast is outside the		o forecast upda	tes.			

GRC RSE	RAMP RSE	
630.000	92.000	
24.000	92.000	
	630.000	630.000 92.000

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	8. Measurement & Regulation
Workpaper:	2GD007.000 - Measurement & Regulation

RSE Changes from RAMP:

General changes to risks scores or RSE values are primarily due to changes in the MAVF and RSE methodology, as discussed in the RAMP to GRC Integration testimony of R. Scott Pearson and Gregory S. Flores (Ex. SCG-03/SDG&E-03, Chapter 2).

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	8. Measurement & Regulation
Workpaper:	2GD007.000 - Measurement & Regulation

RAMP Item # 2

RAMP Activity

RAMP Chapter: SCG-Risk-3 Incident Related to the Medium Pressure System (Excluding Dig-in)

RAMP Line Item ID: C06

RAMP Line Item Name: Meter Set Assembly (MSA) Inspection and Maintenance

Tranche(/s): Tranche1: Meter and Beyond the Meter

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP R (2020 Inci	ange
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	1,447	1,447	1,447	1,447	1,455	1,780

Cost Estimate Changes from RAMP:

The GRC forecast is outside the RAMP range due to forecast updates.

High
<u> </u>
9,227.00

Risk Spend Efficiency (RSE)		
	GRC RSE	RAMP RSE
Tranche 1	130.000	81.000
RSE Changes from RAMP:		
u	r RSE values are primarily due to changes Integration testimony of R. Scott Pearsor	

SCG-03/SDG&E-03, Chapter 2).

Beginning of Workpaper 2GD008.000 - Cathodic Protection

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub	9. Cathodic Protection
Workpaper:	2GD008.000 - Cathodic Protection

Activity Description:

In addition to the application of coating and electric isolation, Cathodic Protection (CP) is one method for mitigating external corrosion on steel pipelines. CP uses both magnesium anodes and rectifier stations to impose a negative charge on the pipeline. Additionally, test stations are installed to monitor the CP system and insulators are placed on the mains to isolate CP areas. This workgroup addresses the resulting identified field maintenance requirements. Examples of maintenance activities performed within this workgroup include, installing anodes, clearing underground shorts created by two pipelines touching each other, repairing or replacing broken wires to anodes or test stations, raising test station lids as a result of the re-pavement of streets adding test points on pipelines, and installing insulators on mains and services. The Cathodic Protection workpaper includes three RAMP activities supporting SCG RAMP Chapter 3 Incident Related to the Medium Pressure System. The identified RAMP activities are C01 Cathodic Protection Base Activities, C02 Cathodic Protection – CP10 Activities, and C03 Cathodic Protection – 100mV Requalification.

Forecast Explanations:

Labor - Base YR Rec

SoCalGas evaluated the historical expenditures for 2017 through 2021 for the Cathodic Protection workgroup. RAMP controls C01 and C02 represent activites that are maintenance in nature and are based on the current assets in the system. For this reason, SoCalGas considers the most recent activity level to be representative of future spending in this work category. Therefore, a base year forecast method was used to forecast the expenses related to C01 and C02. C03 is a new activity that has been identified that will begin during the forecast years. For the workpaper, SoCalGas has selected a base year forecast plus the incremental activities previously discussed to fund the activities in this workgroup through the forecasted years.

Non-Labor - Base YR Rec

SoCalGas evaluated the historical expenditures for 2017 through 2021 for the Cathodic Protection workgroup. RAMP controls C01 and C02 represent activites that are maintenance in nature and are based on the current assets in the system. For this reason, SoCalGas considers the most recent activity level to be representative of future spending in this work category. Therefore, a base year forecast method was used to forecast the expenses related to C01 and C02. C03 is a new activity that has been identified that will begin during the forecast years. For the workpaper, SoCalGas has selected a base year forecast plus the incremental activities previously discussed to fund the activities in this workgroup through the forecasted years.

NSE - Base YR Rec

NSE is not applicable to this workgroup.

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub	9. Cathodic Protection
Workpaper:	2GD008.000 - Cathodic Protection

Summary of Results:

		In 2021\$ (000) Incurred Costs						
		Adju	isted-Recor	ded		Ad	justed-Fore	cast
Years	2017	2018	2019	2020	2021	2022	2023	2024
Labor	7,112	7,113	7,053	7,026	7,495	7,671	7,921	8,637
Non-Labor	5,775	9,048	6,520	7,783	9,843	9,843	9,843	9,843
NSE	0	0	0	0	0	0	0	0
Total	12,887	16,161	13,573	14,809	17,339	17,514	17,764	18,480
FTE	73.6	73.0	71.1	69.8	74.7	76.5	78.9	86.1

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	9. Cathodic Protection
Workpaper:	2GD008.000 - Cathodic Protection
• •	

Summary of Adjustments to Forecast:

			In 202	1 \$(000) lı	ncurred Co	sts					
Forecast	t Method	Bas	Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years	5	2022	2023	2024	2022	2023	2024	2022	2023	2024	
Labor	Base YR Rec	7,495	7,495	7,495	176	426	1,142	7,671	7,921	8,637	
Non-Labor	Base YR Rec	9,843	9,843	9,843	0	0	0	9,843	9,843	9,843	
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0	
Tota	I	17,339	17,339	17,339	176	426	1,142	17,515	17,765	18,481	
FTE	Base YR Rec	74.7	74.7	74.7	1.8	4.2	11.4	76.5	78.9	86.1	

Forecast Adjustment Details:

<u>Year</u>	Labor	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	FTE	Adj Type
2022	176	0	0	176	1.8	1-Sided Adj
Explanation:	RAMP activity Chapter Requalification.	3 Medium Pres	sure Incident	t, C03 Cathodi	ic Protection -	100mV
2022 Total	176	0	0	176	1.8	
2023	426	0	0	426	4.2	1-Sided Adj
Explanation:	RAMP activity Chapter Requalification.	3 Medium Press	sure Incident	t, C03 Cathodi	ic Protection -	100mV
2023 Total	426	0	0	426	4.2	
2024	1,142	0	0	1,142	11.4	1-Sided Adj
Explanation:	RAMP activity Chapter Requalification.	3 Medium Pres	sure Incident	t, C03 Cathodi	ic Protection -	100mV
2024 Total	1,142	0	0	1,142	11.4	

GAS DISTRIBUTION
Mario A. Aguirre
A. Field Operations and Maintenance
9. Cathodic Protection
2GD008.000 - Cathodic Protection

Determination of Adjusted-Recorded (Incurred Costs):

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	5,453	5,592	5,614	5,801	6,371
Non-Labor	5,132	8,295	6,082	7,231	9,843
NSE	0	0	0	0	0
Total	10,585	13,887	11,696	13,031	16,214
FTE	62.6	61.9	59.5	58.3	62.9
djustments (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
Recorded-Adjusted (Nominal	\$)				
Labor	5,453	5,592	5,614	5,801	6,371
Non-Labor	5,132	8,295	6,082	7,231	9,843
NSE	0	0	0	0	0
Total	10,585	13,887	11,696	13,031	16,214
FTE	62.5	61.9	59.6	58.4	62.9
acation & Sick (Nominal \$)					
Labor	924	962	1,064	1,022	1,124
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	924	962	1,064	1,022	1,124
FTE	11.1	11.1	11.5	11.4	11.8
scalation to 2021\$					
Labor	735	559	374	203	0
Non-Labor	643	753	438	553	0
NSE	0	0	0	0	0
Total	1,378	1,312	813	756	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Constan	t 2021\$)				
Labor	7,112	7,113	7,053	7,026	7,495
Non-Labor	5,775	9,048	6,520	7,783	9,843
NSE	0	0	0	0	0
Total	12,887	16,161	13,573	14,809	17,339
FTE	73.6	73.0	71.1	69.8	74.7

* 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 DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	9. Cathodic Protection
Workpaper:	2GD008.000 - Cathodic Protection

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	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

Year	Labor	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	9. Cathodic Protection
Workpaper:	2GD008.000 - Cathodic Protection

RAMP Item # 1

RAMP Activity

RAMP Chapter: SCG-Risk-3 Incident Related to the Medium Pressure System (Excluding Dig-in)

RAMP Line Item ID: C01

RAMP Line Item Name: Cathodic Protection Base Activities

Tranche(/s): Tranche1: High Pressure Supply Lines; Tranche2: Medium Pressure Mains - Steel

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	202 RAMP F (2020 Inc	Range
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	1,205	1,205	1,205	1,205	10,850	13,130
Tranche 2 Cost Estimate	13,873	13,873	13,873	13,873	0	0
	5 4 M 5					

Cost Estimate Changes from RAMP:

The GRC forecast is outside the RAMP range due to forecast updates.

GRC Work Unit/Activity Level Estimates

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 I Range A	
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 # of work orders issued	5,201.00	5,201.00	5,201.00	5,201.00	41,378.00	50,068.00
Tranche 2 # of work orders issued	39,724.00	39,724.00	39,724.00	39,724.00	41,378.00	50,068.00
Work Unit Changes from RAMP None	:					

	GRC RSE	RAMP RSE
Tranche 1	27.000	34.000
Tranche 2	2.300	34.000

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	9. Cathodic Protection
Workpaper:	2GD008.000 - Cathodic Protection

General changes to risks scores or RSE values are primarily due to changes in the MAVF and RSE methodology, as discussed in the RAMP to GRC Integration testimony of R. Scott Pearson and Gregory S. Flores (Ex. SCG-03/SDG&E-03, Chapter 2).

RAMP Item # 2

RAMP Activity

RAMP Chapter: SCG-Risk-3 Incident Related to the Medium Pressure System (Excluding Dig-in)

RAMP Line Item ID: C02

RAMP Line Item Name: Cathodic Protection - CP10 Activities

Tranche(/s): Tranche1: Medium Pressure Services - Steel

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP R (2020 Inci	lange
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	2,174	2,174	2,174	2,174	875	1,160

Cost Estimate Changes from RAMP:

The GRC forecast is outside the RAMP range due to forecast updates.

GRC	Work	Unit/Activ	vitv Level	Estimates

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 F Range A	
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 # of work orders issued	13,480.00	13,480.00	13,480.00	13,480.00	9,999.00	13,224.00

Work Unit Changes from RAMP:

The GRC forecast is outside the RAMP range due to forecast updates.

<u>Risk Spend Efficiency (RSE)</u>		
	GRC RSE	RAMP RSE
Tranche 1	6.200	115.000
SE Changes from RAMP:		
General changes to risks scores o	RSE values are primarily due to changes	s in the MAVF and RSE methodology,
5	Integration testimony of R. Scott Pearson	
SCG-03/SDG&E-03. Chapter 2).		

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Operations and Maintenance
Category-Sub:	9. Cathodic Protection
Workpaper:	2GD008.000 - Cathodic Protection

RAMP Item # 3

RAMP Activity

RAMP Chapter: SCG-Risk-3 Incident Related to the Medium Pressure System (Excluding Dig-in)

RAMP Line Item ID: C03

RAMP Line Item Name: Cathodic Protection - 100 mV Requalification Calculations

Tranche(/s): Tranche1: Medium Pressure Mains - Steel

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost			2024 Forecast	2024 RAMP Range (2020 Incurred \$)	
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	74	250	500	1,216	1,105	1,335
Cost Estimate Changes fro	om RAMP:					

None

GRC Work Unit/Activity Level Estimates

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 R/ Range Ac	
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 # of work orders issued	0.00	75.00	103.00	529.00	230.00	282.00

Work Unit Changes from RAMP:

Work units have been updated based on current progress of this new initiative.

Risk Spend Efficiency (RSE)							
	GRC RSE	RAMP RSE					
Tranche 1	29.000	51.000					
RSE Changes from RAMP:							
General changes to risks scores or RSE values are primarily due to changes in the MAVF and RSE methodology, as discussed in the RAMP to GRC Integration testimony of R. Scott Pearson and Gregory S. Flores (Ex. SCG-03/SDG&E-03, Chapter 2).							

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	B. Asset Management
Workpaper:	2GD009.000

Summary for Category: B. Asset Management

	In 2021\$ (000) Incurred Costs						
	Adjusted-Recorded	Adjusted-Forecast					
	2021	2022	2023	2024			
Labor	12,094	12,760	13,345	13,929			
Non-Labor	1,025	1,307	1,535	1,762			
NSE	0	0	0	0			
Total	13,119	14,067	14,880	15,691			
FTE	121.5	127.6	132.4	137.3			

Workpapers belonging to this Category:

2GD009.000	Asset Management	
20000.000	About munugement	

FTE	121.5	127.6	132.4	137.3
Total	13,119	14,067	14,880	15,691
NSE	0	0	0	0
Non-Labor	1,025	1,307	1,535	1,762
Labor	12,094	12,760	13,345	13,929

Beginning of Workpaper 2GD009.000 - Asset Management

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	B. Asset Management
Category-Sub	1. Asset Management
Workpaper:	2GD009.000 - Asset Management

Activity Description:

SoCalGas's PMO, Project Management, Planning, and Engineering departments provide many of the technical and administrative services needed for the successful and timely completion of the O&M activities in Gas Distribution. This workgroup records the labor and non-labor costs for services provided by these departments. Activities performed by PMO, Project Management, Planning, and Engineering include identifying construction design requirements, evaluating pressure specifications, conducting pipeline planning, providing project drawings, identifying material selection, preparing work order estimates, acquiring third-party contract services, and obtaining permits for construction from city, county, state, and federal agencies.

Forecast Explanations:

Labor - 3-YR Linear

As the level of maintenance work, general construction, municipality work and customer generated activity increases, so will the support provided by the departments that support the field operations. The increase in construction and maintenance work requires additional planning, permitting, and processing of orders. Given these upward pressures and a review of historical costs and underlying cost drivers SoCalGas determined that a three-year (2019 through 2021) linear trend best reflects future requirements for the labor activity in this workgroup. Using an average or base year forecasting method would not be appropriate for this workgroup, as it would not properly fund future work demands. Therefore, a three-year linear trend was used to calculate the labor for this group.

Non-Labor - 3-YR Linear

As the level of maintenance work, general construction, municipality work and customer generated activity increases, so will the support provided by the departments that support the field operations. The increase in construction and maintenance work requires additional planning, permitting, and processing of orders. Given these upward pressures and a review of historical costs and underlying cost drivers SoCalGas determined that a three-year (2019 through 2021) linear trend best reflects future requirements for the non-labor activity in this workgroup. Using an average or base year forecasting method would not be appropriate for this workgroup, as it would not properly fund future work demands. Therefore, a three-year linear trend was used to calculate the labor for this group.

NSE - 3-YR Linear

NSE is not applicable to this workgroup.

Summary of Results:

	In 2021\$ (000) Incurred Costs							
		Adju	isted-Recor	ded		Adjusted-Forecast		
Years	2017	2018	2019	2020	2021	2022	2023	2024
Labor	10,759	10,755	10,926	11,756	12,094	12,761	13,344	13,929
Non-Labor	514	492	571	962	1,025	1,307	1,535	1,762
NSE	0	0	0	0	0	0	0	0
Total	11,273	11,247	11,496	12,719	13,119	14,068	14,879	15,691
FTE	111.9	110.5	111.8	120.2	121.5	127.6	132.4	137.3

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	B. Asset Management
Category-Sub:	1. Asset Management
Workpaper:	2GD009.000 - Asset Management

Summary of Adjustments to Forecast:

			In 202	1 \$(000) lı	ncurred Co	sts				
Forecast	t Method	Bas	se Foreca	st	Forec	ast Adjust	ments	Adjusted-Forecast		
Years	5	2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	3-YR Linear	12,760	13,345	13,929	0	0	0	12,760	13,345	13,929
Non-Labor	3-YR Linear	1,307	1,535	1,762	0	0	0	1,307	1,535	1,762
NSE	3-YR Linear	0	0	0	0	0	0	0	0	0
Tota	I	14,068	14,879	15,691	0	0	0	14,068	14,879	15,691
FTE	3-YR Linear	127.6	132.4	137.3	0.0	0.0	0.0	127.6	132.4	137.3

Forecast Adjustment Details:

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	
2022 Total	0	0	0	0	0.0		
2023 Total	0	0	0	0	0.0		
2024	250	0	0	250	2.5	1-Sided Adj	
Explanation:	Added costs for RAMP a	ctivity CFF-1 A	sset and Re	cords Manage	ement, 07.		
2024	-250	0	0	-250	-2.5	1-Sided Adj	
Explanation:	Explanation: Adjustment to remove costs from the base forecast related to RAMP activity CFF-1 Asset and Records Management, 07. Records Management, 07.						
2024 Total	0	0	0	0	0.0		

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	B. Asset Management
Category-Sub:	1. Asset Management
Workpaper:	2GD009.000 - Asset Management

Determination of Adjusted-Recorded (Incurred Costs):

j	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	8,325	8,560	8,707	9,707	10,280
Non-Labor	457	472	592	894	1,025
NSE	0	0	0	0	0
Total	8,782	9,032	9,300	10,601	11,305
FTE	95.5	94.3	93.7	100.5	102.3
djustments (Nominal \$) *	*				
Labor	-75	-106	-11	-1	0
Non-Labor	0	-21	-60	0	0
NSE	0	0	0	0	0
Total	-76	-127	-71	-1	0
FTE	-0.5	-0.7	-0.1	0.1	0.0
Recorded-Adjusted (Nomin	nal \$)				
Labor	8,249	8,454	8,697	9,706	10,280
Non-Labor	457	451	532	894	1,025
NSE	0	0	0	0	0
Total	8,706	8,906	9,229	10,600	11,305
FTE	95.1	93.7	93.6	100.6	102.2
acation & Sick (Nominal S	\$)				
Labor	1,398	1,455	1,649	1,710	1,814
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	1,398	1,455	1,649	1,710	1,814
FTE	16.8	16.8	18.2	19.6	19.3
scalation to 2021\$					
Labor	1,111	845	580	340	0
Non-Labor	57	41	38	68	0
NSE	0	0	0	0	0
Total	1,169	886	618	408	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2021\$)				
Labor	10,759	10,755	10,926	11,756	12,094
Non-Labor	514	492	571	962	1,025
NSE	0	0	0	0	0
Total	11,273	11,247	11,496	12,719	13,119
FTE	111.9	110.5	111.8	120.2	121.5

* 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.*

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	B. Asset Management
Category-Sub:	1. Asset Management
Workpaper:	2GD009.000 - Asset Management

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs						
	Years	2017	2018	2019	2020	2021
Labor		-75	-106	-11	-0.837	-0.047
Non-Labor		-0.270	-21	-60	0	0
NSE		0	0	0	0	0
	Total	-76	-127	-71	-0.837	-0.047
FTE		-0.5	-0.7	-0.1	0.1	0.0

Detail of Adjustments to Recorded:

Year	Labor	<u>NLbr</u>	NSE	<u>FTE</u>	<u>Adj Type</u>
2017	-75	0	0	-0.5	1-Sided Adj
Explanation:	Incremental costs that are anticipat Memorandum Account (CEMA).	ed to be reque	sted for reco	very through	a non-GRC Catastrophic Event
2017	0	0	0	0.0	1-Sided Adj
Explanation:	Exclude labor expenses associated other costs that have already been		•	,	2
2017	0	0	0	0.0	1-Sided Adj
Explanation:	Exclude labor expenses associated other costs that have already been	, ,		,	2
2017	-1	0	0	0.0	1-Sided Adj
Explanation:	Exclude labor expenses associated other costs that have already been		•		-
					ig attributes.
2017 Total	ý	0	0	-0.5	
2017 Total 2018	ý				1-Sided Adj
2018	-75	0 -21	0	-0.5 -0.7	1-Sided Adj
2018	- 75 -105 Incremental costs that are anticipat	0 -21	0	-0.5 -0.7	1-Sided Adj
2018 Explanation: 2018	-75 -105 Incremental costs that are anticipat Memorandum Account (CEMA).	0 -21 ed to be reque 0 ! with lobbying	0 0 sted for reco 0 activities (FE	-0.5 -0.7 very through 0.0 ERC 426.4).	1-Sided Adj a non-GRC Catastrophic Event 1-Sided Adj This adjustment is in addition to
2018 Explanation: 2018	-75 -105 Incremental costs that are anticipat Memorandum Account (CEMA). 0 Exclude labor expenses associated	0 -21 ed to be reque 0 ! with lobbying	0 0 sted for reco 0 activities (FE	-0.5 -0.7 very through 0.0 ERC 426.4).	1-Sided Adj a non-GRC Catastrophic Event 1-Sided Adj This adjustment is in addition to
2018 Explanation: 2018 Explanation: 2018	-75 -105 Incremental costs that are anticipat Memorandum Account (CEMA). 0 Exclude labor expenses associated other costs that have already been	0 -21 ed to be reque 0 with lobbying excluded base 0	0 0 sted for reco 0 activities (FE od other spec 0 activities (FE	-0.5 -0.7 very through 0.0 ERC 426.4). ific accounti 0.0 ERC 426.4).	1-Sided Adj a non-GRC Catastrophic Event 1-Sided Adj This adjustment is in addition to ng attributes. 1-Sided Adj This adjustment is in addition to
2018 Explanation: 2018 Explanation:	-75 -105 Incremental costs that are anticipat Memorandum Account (CEMA). 0 Exclude labor expenses associated other costs that have already been 0 Exclude labor expenses associated	0 -21 ed to be reque 0 with lobbying excluded base 0	0 0 sted for reco 0 activities (FE od other spec 0 activities (FE	-0.5 -0.7 very through 0.0 ERC 426.4). ific accounti 0.0 ERC 426.4).	1-Sided Adj a non-GRC Catastrophic Event 1-Sided Adj This adjustment is in addition to ng attributes. 1-Sided Adj This adjustment is in addition to

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	B. Asset Management
Category-Sub:	1. Asset Management
Workpaper:	2GD009.000 - Asset Management

	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	
2018 Total	-106	-21	0	-0.7		
2019	-10	-60	0	-0.1	1-Sided Adj	
Explanation:	Incremental costs that are a Memorandum Account (CE		equested for re	ecovery throu	gh a non-GRC Catastrophic Event	
2019	0	0	0	0.0	1-Sided Adj	
Explanation:	Exclude labor expenses as other costs that have alread	-	•	•). This adjustment is in addition to ting attributes.	
2019	0	0	0	0.0	1-Sided Adj	
Explanation:	Exclude labor expenses as other costs that have alread	-	-	-). This adjustment is in addition to ting attributes.	
2019	-1	0	0	0.0	1-Sided Adj	
Explanation:	Exclude labor expenses as other costs that have alread	-	•	•). This adjustment is in addition to ting attributes.	
2019 Total	-11	-60	0	-0.1		
2020	0	0	0	0.1	1-Sided Adj	
Explanation:	Incremental costs that are a Memorandum Account (CE	-	equested for re	ecovery throu	gh a non-GRC Catastrophic Event	
2020	0	0	0	0.0	1-Sided Adj	
Explanation:	Exclude labor expenses as other costs that have alread	-	•	•). This adjustment is in addition to ting attributes.	
2020	0	0	0	0.0	1-Sided Adj	
Explanation:	Exclude labor expenses as other costs that have alread		•	•). This adjustment is in addition to ting attributes.	
Explanation: 2020			•	•	-	
	other costs that have alread	dy been excluded b 0 sociated with lobby	based other s 0 ving activities	pecific accour 0.0 (FERC 426.4	ting attributes. 1-Sided Adj). This adjustment is in addition to	
2020	other costs that have alread -1 Exclude labor expenses as	dy been excluded b 0 sociated with lobby	based other s 0 ving activities	pecific accour 0.0 (FERC 426.4	ting attributes. 1-Sided Adj). This adjustment is in addition to	
2020 Explanation:	other costs that have alread -1 Exclude labor expenses as other costs that have alread	dy been excluded b 0 sociated with lobby dy been excluded b	ving activities	0.0 0.0 (FERC 426.4 pecific accour	ting attributes. 1-Sided Adj). This adjustment is in addition to	
2020 Explanation: 2020 Total	other costs that have alread -1 Exclude labor expenses as other costs that have alread -1	dy been excluded b 0 sociated with lobby dy been excluded b 0 0 sociated with lobby	ving activities oased other s 0 0 ving activities	0.0 (FERC 426.4 pecific accour 0.1 0.0 (FERC 426.4	1-Sided Adj 1-Sided Adj This adjustment is in addition to thing attributes. 1-Sided Adj This adjustment is in addition to	

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	B. Asset Management
Category-Sub:	1. Asset Management
Workpaper:	2GD009.000 - Asset Management

RAMP Item # 1

RAMP Activity

RAMP Chapter: SCG-CFF-1 Asset and Records Management

RAMP Line Item ID: 7

RAMP Line Item Name: Establish an Enterprise Asset Management Operating Model

Tranche(/s): Tranche1: N/A

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP R (2020 Inc)	ange
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	0	0	0	250	1,890	2,730

Cost Estimate Changes from RAMP:

Costs for this RAMP activity are split between multiple witness areas (Gas System Staff & Technology and Gas Transmission Operations and Construction).

GRC Work Unit/Activity Level	Estimates					
Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 RA Range Act	
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 No feasible units	0.00	0.00	0.00	0.00	0.00	0.00
Work Unit Changes from RAM	MP:					

Units were not calculated for this activity in both the 2021 RAMP Report and the GRC.

Risk Spend Efficiency (RSE)			
	GRC RSE	RAMP RSE	
Tranche 1	0.000	0.000	
RSE Changes from RAMP: RSE was not calculated for this activity in both the 2021 RAMP Report and the GRC.			

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	C. Operations and Management
Workpaper:	2GD010.000

Summary for Category: C. Operations and Management

	In 2021\$ (000) Incurred Costs						
	Adjusted-Recorded	Adjusted-Recorded Adjusted-Forecast					
	2021	2022	2023	2024			
Labor	9,985	10,038	10,416	10,794			
Non-Labor	784	885	867	848			
NSE	0	0	0	0			
Total	10,769	10,923	11,283	11,642			
FTE	84.5	84.9	88.5	92.0			

Workpapers belonging to this Category:

2GD010.000 Operations	& Management			
Labor	9,985	10,038	10,416	10,794
Non-Labor	784	885	867	848
NSE	0	0	0	0
Total	10,769	10,923	11,283	11,642
FTE	84.5	84.9	88.5	92.0

Beginning of Workpaper 2GD010.000 - Operations & Management

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	C. Operations and Management
Category-Sub	1. Operations and Management
Workpaper:	2GD010.000 - Operations & Management

Activity Description:

This work category includes costs for operations leadership, field management and operations support, all of which are necessary for SoCalGas to provide customers with safe and reliable service.

Operations leadership covers costs for company leaders responsible for setting the tone and direction of their organization.

Field management is responsible for overall management of the workforce dedicated to the planning and completion of Gas Distribution pipeline maintenance and installation activities.

Forecast Explanations:

Labor - 4-YR Linear

In projecting the future expense requirements for these functions, SoCalGas reviewed the 2017 through 2021 historical spending for this workgroup. In general, operations leadership and field management increase as levels of work and workforce increase: as new programs processes and technologies are implemented, and as regulatory or compliance requirements change. The review of the historical costs in this work category shows a generally consistent upward trend. As a foundational forecast, SoCalGas used the four-year (2018 through 2021) linear trend expense as the forecast for the level of leadership and management necessary to maintain current operations. Using an average or base year forecasting method would not be appropriate for this workgroup, as it would not properly fund future labor demands in the workgroup.

Non-Labor - 4-YR Linear

In projecting the future expense requirements for these functions, SoCalGas reviewed the 2017 through 2021 historical spending for this workgroup. In general, operations leadership and field management increase as levels of work and workforce increase: as new programs processes and technologies are implemented, and as regulatory or compliance requirements change. The review of the historical costs in this work category shows a generally consistent upward trend. As a foundational forecast, SoCalGas used the four-year (2018 through 2021) linear trend expense as the forecast for the level of leadership and management necessary to maintain current operations. Using an average or base year forecasting method would not be appropriate for this workgroup, as it would not properly fund future non-labor demands in the workgroup.

NSE - 4-YR Linear

NSE is not applicable to this workgroup.

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	C. Operations and Management
Category-Sub	1. Operations and Management
Workpaper:	2GD010.000 - Operations & Management

Summary of Results:

	In 2021\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast		
Years	2017	2018	2019	2020	2021	2022	2023	2024	
Labor	8,910	9,195	7,886	9,301	9,985	10,038	10,416	10,794	
Non-Labor	853	890	960	1,094	784	885	867	848	
NSE	0	0	0	0	0	0	0	0	
Total	9,762	10,085	8,846	10,395	10,768	10,923	11,283	11,642	
FTE	74.8	76.5	65.3	77.2	84.5	84.9	88.5	92.0	

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	C. Operations and Management
Category-Sub:	1. Operations and Management
Workpaper:	2GD010.000 - Operations & Management

Summary of Adjustments to Forecast:

			In 202	1 \$(000) lı	ncurred Co	sts				
Forecast	Forecast Method Base Forecast Forecast Adjustments Adjusted-Forecast									
Years	S	2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	4-YR Linear	10,038	10,416	10,794	0	0	0	10,038	10,416	10,794
Non-Labor	4-YR Linear	885	867	848	0	0	0	885	867	848
NSE	4-YR Linear	0	0	0	0	0	0	0	0	0
Tota	ıl	10,923	11,282	11,642	0	0	0	10,923	11,282	11,642
FTE	4-YR Linear	84.9	88.5	92.0	0.0	0.0	0.0	84.9	88.5	92.0

Forecast Adjustment Details:

<u>Year</u>	Labor	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>				
2022	-350	0	0	-350	-3.0	1-Sided Adj				
Explanation:	Adjustment to remove costs from the base forecast related to RAMP activity Chapter 3 Medium Pressure Incident, C15 Company and Contractor Inspection on Gas Pipelines.									
2022	350	0	0	350	3.0	1-Sided Adj				
Explanation:		Added costs for RAMP activity Chapter 3 Medium Pressure Incident, C15 Company and Contractor Inspection on Gas Pipelines.								
2022 Total	0	0	0	0	0.0					
2023	-350	0	0	-350	-3.0	1-Sided Adj				
Explanation:	Adjustment to remove c Pressure Incident, C15				•	apter 3 Medium				
2023	350	0	0	350	3.0	1-Sided Adj				
Explanation:	Added costs for RAMP a Inspection on Gas Pipel		r 3 Medium P	ressure Incid	lent, C15 Comp	pany and Contractor				
2023 Total	0	0	0	0	0.0					
2024	-350	0	0	-350	-3.0	1-Sided Adj				
Explanation:	Adjustment to remove costs from the base forecast related to RAMP activity Chapter 3 Medium Pressure Incident, C15 Company and Contractor Inspection on Gas Pipelines.									
2024	350	0	0	350	3.0	1-Sided Adj				
Explanation:	Added costs for RAMP a Inspection on Gas Pipel	• •	r 3 Medium P	ressure Incid	lent, C15 Comp	pany and Contractor				
2024 Total	0	0	0	0	0.0					

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	C. Operations and Management
Category-Sub:	1. Operations and Management
Workpaper:	2GD010.000 - Operations & Management

Determination of Adjusted-Recorded (Incurred Costs):

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	6,833	7,278	6,281	7,681	8,487
Non-Labor	758	821	895	1,016	784
NSE	0	0	0	0	0
Total	7,591	8,099	7,177	8,697	9,270
FTE	63.5	65.2	54.9	64.5	71.1
djustments (Nominal \$) *	*				
Labor	-2	-49	-4	-2	0
Non-Labor	0	-5	0	0	0
NSE	<u> </u>	0	0	<u> </u>	0
Total	-2	-54	-4	-2	0
FTE	0.0	-0.3	-0.2	0.1	0.0
Recorded-Adjusted (Nomir	nal \$)				
Labor	6,831	7,228	6,277	7,679	8,487
Non-Labor	758	816	895	1,016	784
NSE	0	0	0	0	0
Total	7,589	8,045	7,173	8,695	9,270
FTE	63.5	64.9	54.7	64.6	71.1
acation & Sick (Nominal \$	\$)				
Labor	1,158	1,244	1,190	1,353	1,498
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	1,158	1,244	1,190	1,353	1,498
FTE	11.3	11.6	10.6	12.6	13.4
Escalation to 2021\$					
Labor	920	723	419	269	0
Non-Labor	95	74	64	78	0
NSE	0	0	0	0	0
Total	1,015	797	483	346	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Const	tant 2021\$)				
Labor	8,910	9,195	7,886	9,301	9,985
Non-Labor	853	890	960	1,094	784
NSE	0	0	0	0	0
Total	9,762	10,085	8,846	10,395	10,768
FTE	74.8	76.5	65.3	77.2	84.5

* 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.*

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	C. Operations and Management
Category-Sub:	1. Operations and Management
Workpaper:	2GD010.000 - Operations & Management

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs							
	Years 2017 2018 2019 2020 2021						
Labor		-2	-49	-4	-2	0	
Non-Labor		0	-5	-0.129	0	0	
NSE		0	0	0	0	0	
	Total -	-2	-54	-4	-2	0	
FTE		0.0	-0.3	-0.2	0.1	0.0	

Detail of Adjustments to Recorded:

Year	Labor	NLbr	NSE	FTE	Adj Type
2017	-2	0	0	0.0	1-Sided Adj
Explanation:	Exclude labor expenses associated with other costs that have already been exclu		•	,	-
2017 Total	-2	0	0	0.0	
2018	-47	-5	0	-0.3	1-Sided Adj
Explanation:	Incremental costs that are anticipated to Memorandum Account (CEMA).	be requeste	d for recove	ry through a ו	non-GRC Catastrophic Event
2018	-2	0	0	0.0	1-Sided Adj
Explanation:	Exclude labor expenses associated with other costs that have already been exclu		-	-	-
2018 Total	-49	-5	0	-0.3	
2019	-2	0	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipated to Memorandum Account (CEMA).	be requeste	d for recove	ry through a ו	non-GRC Catastrophic Event
2019	0	0	0	-0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipated to Memorandum Account (CEMA).	be requeste	d for recove	ry through a ו	non-GRC Catastrophic Event
2019	-2	0	0	0.0	1-Sided Adj
Explanation:	Exclude labor expenses associated with other costs that have already been exclu		•	,	-
2019 Total	-4	0	0	-0.2	
2020	0	0	0	0.1	1-Sided Adj
Explanation:	Incremental costs that are anticipated to Memorandum Account (CEMA).	be requeste	d for recove	ry through a ו	non-GRC Catastrophic Event

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	C. Operations and Management
Category-Sub:	1. Operations and Management
Workpaper:	2GD010.000 - Operations & Management

<u>Year</u>	Labor	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	
2020	-2	0	0	0.0	1-Sided Adj	
Explanation:	Exclude labor expenses ass other costs that have alread	-		•	· •	addition to
2020 Total	-2	0	0	0.1		
2021 Total	0	0	0	0.0		

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	C. Operations and Management
Category-Sub:	1. Operations and Management
Workpaper:	2GD010.000 - Operations & Management

RAMP Item # 1

RAMP Activity

RAMP Chapter: SCG-Risk-3 Incident Related to the Medium Pressure System (Excluding Dig-in)

RAMP Line Item ID: C15

RAMP Line Item Name: Company and Contractor Inspection on Gas Pipelines

Tranche(/s): Tranche1: Medium Pressure Mains - Plastic & Steel

GRC Forecast Cost Estimates (\$000)

	2021 Historical Embedded Cost	2022 Forecast	2023 Forecast	2024 Forecast	2024 RAMP R (2020 Inc)	ange urred \$)
	(2021 \$)	(2021 \$)	(2021 \$)	(2021 \$)	Low	High
Tranche 1 Cost Estimate	350	350	350	350	305	405
Cost Estimate Changes fro	om RAMP:					
None						

GRC Work Unit/Activity Level Estimates

Unit of	2021 Historical Embedded	2022 Forecast	2023 Forecast	2024 Forecast	2024 R Range Ad	
Measure	Activities	Activities	Activities	Activities	Low	High
Tranche 1 # of inspections	7,811.00	7,811.00	7,811.00	7,811.00	6,792.00	8,983.00
Work Unit Changes from RAN	IP:					

GRC RSE	RAMP RSE				
0.000	0.000				
RSE Changes from RAMP: RSE was not calculated for this activity in both the 2021 RAMP Report and the GRC.					
	0.000	0.000 0.000			

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	D. Regional Public Affairs
Workpaper:	2GD011.000

Summary for Category: D. Regional Public Affairs

	In 2021\$ (000) Incurred Costs					
	Adjusted-Recorded		Adjusted-Forecast			
	2021	2022	2023	2024		
Labor	3,427	3,552	3,552	3,552		
Non-Labor	416	416	416	416		
NSE	0	0	0	0		
Total	3,843	3,968	3,968	3,968		
FTE	27.9	28.9	28.9	28.9		

Workpapers belonging to this Category:

2GD011.000 Regional Pu	ublic Affairs			
Labor	3,427	3,552	3,552	3,552
Non-Labor	416	416	416	416
NSE	0	0	0	0
Total	3,843	3,968	3,968	3,968
FTE	27.9	28.9	28.9	28.9
FTE	,	,	,	,

Beginning of Workpaper 2GD011.000 - Regional Public Affairs

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	D. Regional Public Affairs
Category-Sub	1. Regional Public Affairs
Workpaper:	2GD011.000 - Regional Public Affairs

Activity Description:

Regional Public Affairs (RPA) primarily supports field operations through its work with regional and local governments on issues regarding proposed regulations, franchises, permitting, and emergency preparedness and response. RPA also educates officials at the county and city levels about SoCalGas issues that could impact customers. RPA further serves as the point of contact in the communities SoCalGas serves, educating stakeholders about SoCalGas activities, programs and services, responding to customer and media inquiries, and resolving customer complaints.

Forecast Explanations:

Labor - Base YR Rec

SoCalGas evaluated the historical expenditures for 2017 through 2021 for the Regional Public Affairs (RPA) workgroup. The level of spending for this workgroup is primarily based on the salaries and non-labor expenses of the current RPA workgroup. Therefore, a base year forecast method was used to forecast the base level of future labor expense plus incremental funding needed to fund an additional Public Affairs Manager.

Non-Labor - Base YR Rec

SoCalGas evaluated the historical expenditures for 2017 through 2021 for the Regional Public Affairs (RPA) workgroup. The level of spending for this workgroup is primarily based on the salaries and associated non-labor expenses of the current RPA workgroup. Therefore, a base year forecast method was used to forecast the base level of future non-labor expense.

NSE - Base YR Rec

NSE is not applicable to this workgroup.

Summary of Results:

		In 2021\$ (000) Incurred Costs								
		Adju	sted-Recor	ded		Ad	Adjusted-Forecast			
Years	2017	2018	2019	2020	2021	2022	2023	2024		
Labor	3,190	3,310	3,445	3,378	3,427	3,553	3,553	3,553		
Non-Labor	515	500	526	455	416	417	417	417		
NSE	0	0	0	0	0	0	0	0		
Total	3,705	3,809	3,971	3,833	3,844	3,970	3,970	3,970		
FTE	27.8	28.0	29.0	28.2	27.9	28.9	28.9	28.9		

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	D. Regional Public Affairs
Category-Sub:	1. Regional Public Affairs
Workpaper:	2GD011.000 - Regional Public Affairs

Summary of Adjustments to Forecast:

	In 2021 \$(000) Incurred Costs									
Forecas	t Method	Bas	Base Forecast		Forecast Adjustments			Adjusted-Forecast		
Years	s	2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	Base YR Rec	3,427	3,427	3,427	125	125	125	3,552	3,552	3,552
Non-Labor	Base YR Rec	416	416	416	0	0	0	416	416	416
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Tota	al	3,844	3,844	3,844	125	125	125	3,969	3,969	3,969
FTE	Base YR Rec	27.9	27.9	27.9	1.0	1.0	1.0	28.9	28.9	28.9

Forecast Adjustment Details:

Year	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	Adj Type			
2022	125	0	0	125	1.0	1-Sided Adj			
Explanation:	Public Affairs Manager - Regional Public Affairs will be adding 1 Public Affairs Manager in 2022.								
	Labor cost will be 1 FTE	x \$125K begin	ning in 2022						
2022 Total	125	0	0	125	1.0				
2023	125	0	0	125	1.0	1-Sided Adj			
Explanation:	Public Affairs Manager -	Regional Publi	c Affairs will	be adding 1 F	Public Affairs Ma	anager in 2022.			
	Labor cost will be 1 FTE	x \$125K begin	ning in 2022						
2023 Total	125	0	0	125	1.0				
2024	125	0	0	125	1.0	1-Sided Adj			
Explanation:	Explanation: Public Affairs Manager - Regional Public Affairs will be adding 1 Public Affairs Manager in 2022.								
	Labor cost will be 1 FTE	x \$125K begin	ining in 2022						
2024 Total	125	0	0	125	1.0				

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	D. Regional Public Affairs
Category-Sub:	1. Regional Public Affairs
Workpaper:	2GD011.000 - Regional Public Affairs

Determination of Adjusted-Recorded (Incurred Costs):

j	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	2,537	2,692	2,832	2,879	2,926
Non-Labor	552	606	559	634	612
NSE	0	0	0	0	0
Total	3,089	3,298	3,391	3,513	3,538
FTE	24.1	24.2	24.8	24.2	23.6
djustments (Nominal \$) *	*				
Labor	-92	-90	-90	-91	-12
Non-Labor	-95	-148	-68	-211	-196
NSE	0	0	0	0	0
Total	-186	-238	-158	-301	-208
FTE	-0.6	-0.6	-0.6	-0.7	-0.1
Recorded-Adjusted (Noming	nal \$)				
Labor	2,446	2,602	2,742	2,789	2,913
Non-Labor	458	458	491	423	416
NSE	0	0	0	0	0
Total	2,905	3,060	3,233	3,212	3,330
FTE	23.5	23.6	24.2	23.5	23.5
acation & Sick (Nominal S	\$)				
Labor	415	448	520	491	514
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	415	448	520	491	514
FTE	4.3	4.4	4.8	4.7	4.4
scalation to 2021\$					
Labor	330	260	183	98	0
Non-Labor	57	42	35	32	0
NSE	0	0	0	0	0
Total	387	302	218	130	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2021\$)				
Labor	3,190	3,310	3,445	3,378	3,427
Non-Labor	515	500	526	455	416
NSE	0	0	0	0	0
Total	3,705	3,809	3,971	3,833	3,844
FTE	27.8	28.0	29.0	28.2	27.9

* 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 DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	D. Regional Public Affairs
Category-Sub:	1. Regional Public Affairs
Workpaper:	2GD011.000 - Regional Public Affairs

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs								
Years 2017 2018 2019 2020 2021								
Labor		-92	-90	-90	-91	-12		
Non-Labor		-95	-148	-68	-211	-196		
NSE		0	0	0	0	0		
	Total	-186	-238	-158	-301	-208		
FTE		-0.6	-0.6	-0.6	-0.7	-0.1		

Detail of Adjustments to Recorded:

Year		<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type
2017		0	-14	0	0.0	1-Sided Adj
Explanation:	Excluding payments 2018: \$8,830 2019: \$8,889 2020: \$3,370 2021: \$38,084	made to Chambe	ers of Comme	rce. 2017:	\$14,389	
2017		0	-6	0	0.0	1-Sided Adj
Explanation:	Excluding costs asso 2019: \$9,081 2020: \$4,488 2021: \$6,223	ciated to tickets.	2017: \$5,68	0 2018: \$1	2,014	
2017		0	-2	0	0.0	1-Sided Adj
Explanation:	Excluding costs asso 2019: \$2,817 2020: \$1,503 2021: \$2,650	ciated to dues.	2017: \$2,38	5 2018: \$2,	027	
2017		0	-42	0	0.0	1-Sided Adj
Explanation:	Excluding costs asso 2018: \$23,550 2019: \$14,307 2020: \$14,439 2021: \$10,700	ciated to sponso	rships. 201	7: \$42,148		
2017		-4	0	0	0.0	1-Sided Adj
Explanation:	Exclude labor expense other costs that have			-		This adjustment is in addition to ng attributes.
2017		-31	0	0	-0.2	1-Sided Adj

GAS DISTRIBUTION
Mario A. Aguirre
D. Regional Public Affairs
1. Regional Public Affairs
2GD011.000 - Regional Public Affairs

Veer		h.a.v.	NII law	NOF	FTF	
<u>Year</u> Explanation		<u>bor</u>	<u>NLbr</u>	<u>NSE</u>	FTE	Adj Type This adjustment is in addition to
Explanation:	other costs that have a			•	,	-
2017		-6	0	0	-0.1	1-Sided Adj
Explanation:	Exclude labor expense other costs that have a					This adjustment is in addition to ng attributes.
2017		-6	0	0	-0.1	1-Sided Adj
Explanation:	Exclude labor expense other costs that have a			•	,	This adjustment is in addition to ng attributes.
2017		-43	-30	0	-0.2	1-Sided Adj
Explanation:						FERC 426.4). This adjustment is cific accounting attributes.
2017 Total		-92	-95	0	-0.6	
2018		0	-14	0	0.0	1-Sided Adj
Explanation:	Incremental costs that Memorandum Account	-	to be reques	ted for recov	ery through	a non-GRC Catastrophic Event
2018		0	-9	0	0.0	1-Sided Adj
Explanation:	Excluding payments m 2018: \$8,830 2019: \$8,889 2020: \$3,370 2021: \$38,084	ade to Chambe	ers of Comme	erce. 2017: S	\$14,389	
2018		0	-12	0	0.0	1-Sided Adj
Explanation:	Excluding costs assoc 2019: \$9,081 2020: \$4,488 2021: \$6,223	iated to tickets.	2017: \$5,68	80 2018: \$12	2,014	
2018		0	-2	0	0.0	1-Sided Adj
Explanation:	Excluding costs assoc 2019: \$2,817 2020: \$1,503 2021: \$2,650	iated to dues.	2017: \$2,38	5 2018: \$2,0)27	
2018		0	-24	0	0.0	1-Sided Adj
Explanation:	Excluding costs assoc 2018: \$23,550 2019: \$14,307 2020: \$14,439 2021: \$10,700	iated to sponso	rships. 201	17: \$42,148		
2018		-4	0	0	0.0	1-Sided Adj

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	D. Regional Public Affairs
Category-Sub:	1. Regional Public Affairs
Workpaper:	2GD011.000 - Regional Public Affairs

Year	La	<u>bor</u>	<u>NLbr</u>	NSE	<u>FTE</u>	Adj Type
Explanation:	Exclude labor expense other costs that have a			-		nis adjustment is in addition to attributes.
2018		-30	0	0	-0.2	1-Sided Adj
Explanation:	Exclude labor expense other costs that have a			-		nis adjustment is in addition to attributes.
2018		-6	0	0	-0.1	1-Sided Adj
Explanation:	Exclude labor expense other costs that have a					nis adjustment is in addition to attributes.
2018		-6	0	0	-0.1	1-Sided Adj
Explanation:	Exclude labor expense other costs that have a			-		nis adjustment is in addition to attributes.
2018		-43	-88	0	-0.2	1-Sided Adj
Explanation:		-			-	RC 426.4). This adjustment is ic accounting attributes.
2018 Total		-90	-148	0	-0.6	
2019		0	-7	0	0.0	1-Sided Adj
Explanation:	Incremental costs that	are anticipated	to be requeste	d for recove	ry through a	non CBC Catastrophia Event
•	Memorandum Account	•	to be request		ary through a	Holl-GRC Calastrophic Event
2019		•	-9	0	0.0	1-Sided Adj
·		(CEMA). 0	-9	0	0.0	
2019	Memorandum Account Excluding payments m 2018: \$8,830 2019: \$8,889 2020: \$3,370	(CEMA). 0	-9	0	0.0	
2019 Explanation:	Memorandum Account Excluding payments m 2018: \$8,830 2019: \$8,889 2020: \$3,370	i (CEMA). 0 ade to Chambe	-9 ers of Commer -9	0 ce. 2017:\$ 0	0.0 14,389 0.0	1-Sided Adj
2019 Explanation: 2019	Memorandum Account Excluding payments m 2018: \$8,830 2019: \$8,889 2020: \$3,370 2021: \$38,084 Excluding costs associ 2019: \$9,081 2020: \$4,488	i (CEMA). 0 ade to Chambe	-9 ers of Commer -9	0 ce. 2017:\$ 0	0.0 14,389 0.0	1-Sided Adj
2019 Explanation: 2019 Explanation:	Memorandum Account Excluding payments m 2018: \$8,830 2019: \$8,889 2020: \$3,370 2021: \$38,084 Excluding costs associ 2019: \$9,081 2020: \$4,488	(CEMA). 0 ade to Chambe 0 iated to tickets. 0	-9 ers of Commer -9 2017: \$5,680 -3	0 ce. 2017: \$ 0 2018: \$12, 0	0.0 14,389 0.0 014 0.0	1-Sided Adj 1-Sided Adj

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	D. Regional Public Affairs
Category-Sub:	1. Regional Public Affairs
Workpaper:	2GD011.000 - Regional Public Affairs

Year		Labor	NLbr	NSE	FTE	Adj Type
Explanation:	Excluding costs ass 2018: \$23,550 2019: \$14,307 2020: \$14,439 2021: \$10,700			2017: \$42,148		
2019		0	20	0	0.0	CCTR Transf To 2200-8000.002
Explanation:	Adjustment to move - Compensation & E			executive bene	fits from Ga	s Distribution to Corporate Center
2019		-4	0	0	0.0	1-Sided Adj
Explanation:	Exclude labor expendence of the costs that have		-			This adjustment is in addition to ng attributes.
2019		-30	0	0	-0.2	1-Sided Adj
Explanation:	Exclude labor expendence other costs that have		-			This adjustment is in addition to ng attributes.
2019		-6	0	0	-0.1	1-Sided Adj
Explanation:	Exclude labor expendence of the costs that have		-			This adjustment is in addition to ng attributes.
2019		-6	0	0	-0.1	1-Sided Adj
Explanation:	Exclude labor expendence of the costs that have		-	• •		This adjustment is in addition to ng attributes.
2019		-43	-47	0	-0.2	1-Sided Adj
Explanation:				-	-	FERC 426.4). This adjustment is actific accounting attributes.
2019 Total		-90	-68	0	-0.6	
2020		0	-71	0	0.0	1-Sided Adj
Explanation:	Incremental COVID Catastrophic Event				uested for r	ecovery through a non-GRC
2020		0	-3	0	0.0	1-Sided Adj
Explanation:	Excluding payments 2018: \$8,830 2019: \$8,889 2020: \$3,370 2021: \$38,084	s made to Cham	bers of Co	ommerce. 2017:	\$14,389	
2020		0	-4	0	0.0	1-Sided Adj
Explanation:	Excluding costs ass 2019: \$9,081 2020: \$4,488 2021: \$6,223	sociated to ticket	s. 2017: S	\$5,680 2018: \$1	2,014	
•••••						

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	D. Regional Public Affairs
Category-Sub:	1. Regional Public Affairs
Workpaper:	2GD011.000 - Regional Public Affairs

Year	L	<u>abor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type
2020		0	-2	0	0.0	1-Sided Adj
Explanation:	Excluding costs asso 2019: \$2,817 2020: \$1,503 2021: \$2,650	ciated to dues.	2017: \$2,3	85 2018: \$2,0)27	
2020		0	-14	0	0.0	1-Sided Adj
Explanation:	Excluding costs asso 2018: \$23,550 2019: \$14,307 2020: \$14,439 2021: \$10,700	ciated to sponso	orships. 20)17: \$42,148		
2020		-4	0	0	0.0	1-Sided Adj
Explanation:	Exclude labor expense other costs that have			-		This adjustment is in addition to g attributes.
2020		-30	0	0	-0.2	1-Sided Adj
Explanation:	Exclude labor expense other costs that have					This adjustment is in addition to g attributes.
2020		-6	0	0	-0.1	1-Sided Adj
Explanation:	Exclude labor expense other costs that have					This adjustment is in addition to g attributes.
2020		-6	0	0	-0.1	1-Sided Adj
Explanation:	Exclude labor expense other costs that have			-	-	This adjustment is in addition to g attributes.
2020		-43	-116	0	-0.2	1-Sided Adj
Explanation:						ERC 426.4). This adjustment is cific accounting attributes.
2020		-1	0	0	-0.1	1-Sided Adj
Explanation:		ment is in additio		-		nd other advocacy related en excluded based on other
2020 Total		-91	-211	0	-0.7	
2021		0	-8	0	0.0	1-Sided Adj
Explanation:	Incremental COVID-r Catastrophic Event M		•	•	ested for re	covery through a non-GRC
2021		0	-38	0	0.0	1-Sided Adj

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	D. Regional Public Affairs
Category-Sub:	1. Regional Public Affairs
Workpaper:	2GD011.000 - Regional Public Affairs

Year	ļ	<u>_abor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type
Explanation:	Excluding payments 2018: \$8,830 2019: \$8,889 2020: \$3,370 2021: \$38,084	made to Chambe	ers of Comme	rce. 2017:	\$14,389	
2021		0	-6	0	0.0	1-Sided Adj
Explanation:	Excluding costs asso 2019: \$9,081 2020: \$4,488 2021: \$6,223	ociated to tickets.	2017: \$5,68	0 2018: \$12	2,014	
2021		0	-3	0	0.0	1-Sided Adj
Explanation:	Excluding costs asso 2019: \$2,817 2020: \$1,503 2021: \$2,650	ociated to dues.	2017: \$2,38	5 2018: \$2,	027	
2021		0	-11	0	0.0	1-Sided Adj
Explanation:	Excluding costs asso 2018: \$23,550 2019: \$14,307 2020: \$14,439 2021: \$10,700	ociated to sponso	rships. 201	7: \$42,148		
2021		0	0	0	0.0	1-Sided Adj
Explanation:	Exclude labor expen other costs that have			-		This adjustment is in addition to ng attributes.
2021		-1	0	0	0.0	1-Sided Adj
Explanation:	Exclude labor expen other costs that have			-		This adjustment is in addition to ng attributes.
2021		-1	0	0	0.0	1-Sided Adj
Explanation:	Exclude labor expen other costs that have					This adjustment is in addition to ng attributes.
2021		0	0	0	0.0	1-Sided Adj
Explanation:	Exclude labor expen other costs that have			•		This adjustment is in addition to ng attributes.
2021		-8	-130	0	0.0	1-Sided Adj
Explanation:						FERC 426.4). This adjustment is cific accounting attributes.
2021		-1	0	0	-0.1	1-Sided Adj

2021 Total	-1	2 -196	0	-0.1		
Explanation:	Exclude labor expenses a activities. This adjustmen specific accounting attribution	t is in addition to othe		-	l other advocacy related excluded based on other	
Year	Labo	r <u>NLbr</u>	NSE	<u>FTE</u>	<u>Adi Type</u>	
Workpaper:	2GD011.000 - Regi	onal Public Affairs				
Category-Sub:	1. Regional Public	Affairs				
Category:	D. Regional Public	Affairs				
Witness:	Mario A. Aguirre					
Area:	GAS DISTRIBUTIC	N				

GAS DISTRIBUTION Area:

Witness: Mario A. Aguirre

Summary of Shared Services Workpapers:

	In 2021 \$ (000) Incurred Costs					
	Adjusted- Recorded		Adjusted-Forecas	t		
Description	2021	2022	2023	2024		
A. Field Services Leadership & Assessment	410	410	410	410		
Total	410	410	410	410		

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Services Leadership & Assessment
Cost Center:	2200-0431.000

Summary for Category: A. Field Services Leadership & Assessment

	In 2021\$ (000) Incurred Costs						
	Adjusted-Recorded	Adjusted-Forecast					
	2021	2022	2023	2024			
Labor	391	391	391	391			
Non-Labor	19	19	19	19			
NSE	0	0	0	0			
Total	410	410	410	410			
FTE	2.0	2.0	2.0	2.0			

Cost Centers belonging to this Category:

2200-0431.000 FIELD SERVICES LEADERSHIP & OPERATIONS ASSESSMENT

Labor	391	391	391	391
Non-Labor	19	19	19	19
NSE	0	0	0	0
Total	410	410	410	410
FTE	2.0	2.0	2.0	2.0

Beginning of Workpaper 2200-0431.000 - FIELD SERVICES LEADERSHIP & OPERATIONS ASSESSMENT

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Services Leadership & Assessment
Category-Sub	1. Field Services Leadership & Assessment
Cost Center:	2200-0431.000 - FIELD SERVICES LEADERSHIP & OPERATIONS ASSESSMENT

Activity Description:

Recorded to this cost center are the salary and employee non-labor expenses for the Vice President of the Gas Distribution Organization. Also charged are one-time expenses that benefit the entire organization.

Forecast Explanations:

Labor - Base YR Rec

The level of spending for this workgroup is primarily based on the salary of the current Vice President of Gas Distribution. The most recent spending levels represent the most accurate estimate of costs for the forecast years. Therefore, a base year forecast method was used to forecast the base level of future labor expense. Using an average forecasting method would not be appropriate for this work category as it would not fully fund the workgroup. Using a linear trend would overstate costs beyond anticipated levels.

Non-Labor - Base YR Rec

The level of spending for this workgroup is primarily based on the salary of the current Vice President of Gas Distribution. The most recent spending levels represent the most accurate estimate of costs for the forecast years. Therefore, a base year forecast method was used to forecast the base level of future labor expense. Using an average forecasting method would not be appropriate for this work category as it would not fully fund the workgroup. Using a linear trend would overstate costs beyond anticipated levels.

NSE - Base YR Rec

NSE is not applicable to this workgroup.

Summary of Results:

[In 2021\$ (000) Incurred Costs								
		Adju	isted-Recor	ded		Ad	justed-Fore	cast	
Years	2017	2018	2019	2020	2021	2022	2023	2024	
Labor	280	352	407	485	391	391	391	391	
Non-Labor	137	100	79	49	19	19	19	19	
NSE	0	0	0	0	0	0	0	0	
Total	417	453	486	535	410	410	410	410	
FTE	1.2	1.8	2.4	3.2	2.0	2.0	2.0	2.0	

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Services Leadership & Assessment
Category-Sub:	1. Field Services Leadership & Assessment
Cost Center:	2200-0431.000 - FIELD SERVICES LEADERSHIP & OPERATIONS ASSESSMENT

Cost Center Allocations (Incurred Costs):

	2021 Adjusted-Recorded						2022 Adju	sted-Fore	cast	
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	391	19	0	410	2.0	391	19	0	410	2.0
Total Incurred	391	19	0	410	2.0	391	19	0	410	2.0
% Allocation										
Retained	87.42%	87.42%				87.42%	87.42%			
SEU	12.58%	12.58%				12.58%	12.58%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			
		2023 Adju:	sted-Fore	cast			2024 Adju	sted-Fore	cast	
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0

	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	391	19	0	410	2.0	391	19	0	410	2.0
Total Incurred	391	19	0	410	2.0	391	19	0	410	2.0
% Allocation										
Retained	87.42%	87.42%				87.42%	87.42%			
SEU	12.58%	12.58%				12.58%	12.58%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Area:GAS DISTRIBUTIONWitness:Mario A. AguirreCategory:A. Field Services Leadership & AssessmentCategory-Sub:1. Field Services Leadership & AssessmentCost Center:2200-0431.000 - FIELD SERVICES LEADERSHIP & OPERATIONS ASSESSMENT

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2021

The allocation method is based upon oversight of services that benefit customers, general management of the pipeline asset, and leadership to the employee base within Field Services. A ratio of miles of pipe, which is a standard assessment across both utilities, was used in calculating shared service allocation.

Cost Center Allocation Percentage for 2022

The allocation method is based upon oversight of services that benefit customers, general management of the pipeline asset, and leadership to the employee base within Field Services. A ratio of miles of pipe, which is a standard assessment across both utilities, was used in calculating shared service allocation.

Cost Center Allocation Percentage for 2023

The allocation method is based upon oversight of services that benefit customers, general management of the pipeline asset, and leadership to the employee base within Field Services. A ratio of miles of pipe, which is a standard assessment across both utilities, was used in calculating shared service allocation.

Cost Center Allocation Percentage for 2024

The allocation method is based upon oversight of services that benefit customers, general management of the pipeline asset, and leadership to the employee base within Field Services. A ratio of miles of pipe, which is a standard assessment across both utilities, was used in calculating shared service allocation.

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Services Leadership & Assessment
Category-Sub:	1. Field Services Leadership & Assessment
Cost Center:	2200-0431.000 - FIELD SERVICES LEADERSHIP & OPERATIONS ASSESSMENT

Summary of Adjustments to Forecast:

	In 2021 \$(000) Incurred Costs									
Forecast Method Base Forecast			Forec	ast Adjust	ments	Adjusted-Forecast				
Years	6	2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	Base YR Rec	391	391	391	0	0	0	391	391	391
Non-Labor	Base YR Rec	19	19	19	0	0	0	19	19	19
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Tota	I	410	410	410	0	0	0	410	410	410
FTE	Base YR Rec	2.0	2.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0

<u>Year Labor NLbr NSE Total FTE Adj Type</u>	Year	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	
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Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Services Leadership & Assessment
Category-Sub:	1. Field Services Leadership & Assessment
Cost Center:	2200-0431.000 - FIELD SERVICES LEADERSHIP & OPERATIONS ASSESSMENT

Determination of Adjusted-Recorded (Incurred Costs):

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	217	278	324	396	333
Non-Labor	124	93	7	49	19
NSE	0	0	0	0	0
Total	340	371	331	444	352
FTE	0.9	1.5	2.0	2.7	1.7
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	-1	68	-1	-1
NSE	0	0	0	0	0
Total	0	-1	68	-1	-1
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nomina	al \$)				
Labor	217	278	324	396	333
Non-Labor	124	93	75	47	19
NSE	0	0	0	0	0
Total	340	371	399	443	351
FTE	1.0	1.5	2.0	2.7	1.7
acation & Sick (Nominal \$))				
Labor	37	48	61	70	59
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	37	48	61	70	59
FTE	0.2	0.3	0.4	0.5	0.3
scalation to 2021\$					
Labor	27	27	22	20	0
Non-Labor	13	8	4	2	0
NSE	0	0	0	0	0
Total	40	34	26	22	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Consta	ant 2021\$)				
Labor	280	352	407	485	391
Non-Labor	137	100	79	49	19
NSE	0	0	0	0	0
Total	417	453	486	535	410
FTE	1.2	1.8	2.4	3.2	2.0

* After company-wide exclusions of Non-GRC costs

** Refer to "Detail of Adjustments to Recorded" page for line item adjustments

Area:	GAS DISTRIBUTION
Witness:	Mario A. Aguirre
Category:	A. Field Services Leadership & Assessment
Category-Sub:	1. Field Services Leadership & Assessment
Cost Center:	2200-0431.000 - FIELD SERVICES LEADERSHIP & OPERATIONS ASSESSMENT

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	-0.543	68	-1	-0.625
NSE		0	0	0	0	0
	Total –	0	-0.543	68	-1	-0.625
FTE		0.0	0.0	0.0	0.0	0.0

Detail of Adjustments to Recorded:

Year	Labor	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	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	68	0	0.0	CCTR Transf To 2200-8000.002
Explanation:	Adjustment to move credits associated to LTIP executive benefits from Gas Distribution to Corporate Center - Compensation & Benefits witness.				
2019 Total	0	68	0	0.0	
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 Total	0	-1	0	0.0	
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 Total	0	-1	0	0.0	

Area: GAS DISTRIBUTION Witness: Mario A. Aguirre

Cast Cantan	Curk	Description
Cost Center	<u>Sub</u> 000	Description NB CUST EXPERIENCE
2200-0209	000	PMO CAP PROG & DIMP DREAMS
2200-0224	000	GAS TRANSMISSION SKILLS TRAINING
2200-0254	000	Transforming Distribution Initiative Pro
2200-0423	000	GD SE RGN SP1 (REDR)
2200-0432	000	GD SE RUN SFT (REDR) GD SE PLANNING AND ENGINEERING MGR
2200-0433	000	GD SE PLANNING AND ENGINEERING MGR GD SE TSS-REDLANDS 3
2200-0434		
2200-0435	000 000	GD SE SYST PROT SUPV-REDLANDS GD SE TSS-REDLANDS 2
2200-0436	000	GD SE RGN DIRECTOR
2200-0437	000	GD SE REG ENGINEER-REDLANDS
2200-0438	000	GD SE N&R-REDLANDS
2200-0439	000	GD SE WORK ORDER CONTROL-REDLANDS
2200-0441	000	GD SOUTHEAST ARM
2200-0443	000	GD SE AREA MGR INLAND EAST
2200-0444	000	GD SE CREW SAN BERNARDINO
2200-0446		GD SE CREW CORONA
2200-0447	000	
2200-0450	000	GD SE CREW CHINO
2200-0451	000	GD SE RGN SP10 (SNB)
2200-0453	000	GD SE CREW FONTANA
2200-0454	000	GD SE TSS-DIMP DREAM
2200-0456	000	
2200-0459	000	
2200-0460	000	GD SE LEAKAGE-REDLANDS
2200-0461	000	GD SE CREW RAMONA
2200-0465	000	
2200-0466	000	
2200-0468	000	GD SE CREW RIM FOREST GD SE AREA MGR SAN GABRIEL VALLEY
2200-0469	000 000	GD SE CREW ALHAMBRA
2200-0471	000	GD SE CREW ALMANIBRA GD SE RGN SPEC PROJ 5 (FKA AZU DOM)
2200-0472		GD SE CREW AZUSA
2200-0474	000 000	GD SE CREW PASADENA
2200-0478	000	GD NW PLANNING AND ENGINEERING MGR
2200-0480	000	GD NW SYS PROT SUPV - CHATSWORTH
2200-0481	000	GD NW WORK ORDER CONTROL - CHATSWORTH
2200-0482	000	GD NW MORK ORDER CONTROL - CHATSWORTH GD NW M&R - SATICOY
2200-0483	000	GD NW REG PIPELINE PLNG DISTRICTS
2200-0484	000	GD NW REG ENGINEER - CHATSWORTH
2200-0485	000	GD NW TECH SUPV - CHATSWORTH 1
2200-0486	000	GD NW TECH SUPV - GOLETA
2200-0487 2200-0488	000	GD NW TECH SUPV - GOLETA GD NW TECH SUPV - VISALIA
	000	GD NW ASSET M&I MGR
2200-0489 2200-0490	000	GD NW ASSET MAININGR GD NW HP CONSTRUCTION
	000	GD NW AREA MGR SAN JOAQUIN
2200-0491	000	

Area: GAS DISTRIBUTION Witness: Mario A. Aguirre

Cost Center	Sub	Description
2200-0492	000	GD NW CREW VISALIA
2200-0496	000	GD NW CREW BAKERSFIELD
2200-0499	000	GD NORTHWEST ARM
2200-0500	000	GD NW AREA MGR NORTH COAST
2200-0501	000	GD NW RGN CREW SLO/TEMPLETON
2200-0504	000	GD NW CREW SANTA MARIA
2200-0510	000	GD NW CREW VENTURA
2200-0511	000	GD NW AREA MGR CENTRAL COAST
2200-0512	000	GD NW CREW SANTA BARBARA
2200-0517	000	GD NW CREW CANOGA
2200-0518	000	GD NW LEAKAGE-CHATSWORTH
2200-0520	000	GD NW CREW SIMI VALLEY
2200-0521	000	GD NW AREA MGR SFV
2200-0523	000	GD NW CREW SATICOY
2200-0524	000	GD NW RGN SPEC PROJ 5 (FKA DOM)
2200-0526	000	GD NW CREW BRANFORD
2200-0527	000	GD NW RGN SPEC PROJ 4 (FKA DOM)
2200-0528	000	GD NW CREW GLENDALE
2200-0532	000	GD NW CREW VALENCIA
2200-0533	000	GD NW AREA MGR NORTH VALLEY
2200-0535	000	GD NW CREW LANCASTER
2200-0537	000	GD SE ENVIRONMENTAL
2200-0538	000	GD SE REG ENGINEER-ANAHEIM
2200-0539	000	GD SE TSS-ANAHEIM 3
2200-0540	000	GD SE TSS (PPA SUP)-ANAHEIM 1
2200-0541	000	GD SE SYST PROT SUPV-ANAHEIM
2200-0542	000	GD SE M&R ANAHIEM
2200-0543	000	GD SE WORK ORDER CONTROL-ANAHEIM
2200-0544	000	GD SE RGN FIELD OPERATIONS MGR
2200-0545	000	GD SE AREA MGR ORANGE NORTH
2200-0547	000	GD SE CREW DOWNEY
2200-0549	000	GD SE CREW WHITTIER
2200-0553	000	GD SE CREW ANAHEIM
2200-0555	000	GD SE CREW LA JOLLA
2200-0558	000	GD SE AREA MGR ORANGE COUNTY COAST
2200-0559	000	GD SE CREW ALISO VIEJO
2200-0562	000	GD SE CREW GARDEN GROVE
2200-0565	000	GD SE CREW SANTA ANA
2200-0567	000	GD NW TECH SUPV - CHATSWORTH 2
2200-0569	000	GD SE CREW INDUSTRY
2200-0571	000	GD NW REGION DIRECTOR
2200-0572	000	GD NW REGION FIELD OPERATIONS MGR
2200-0575	000	GD NW CREW BELVEDERE
2200-0576	000	GD NW AREA MGR MID CITY LA
2200-0577	000	GD NW CREW JUANITA

Area: GAS DISTRIBUTION Witness: Mario A. Aguirre

Cost Center	Sub	Description
2200-0579	<u>300</u> 000	GD SE RGN SP3 (CSEC)
2200-0579	000	GD SE RPPM-ANAHEIM
	000	GD NW M&R - DO NOT USE
2200-0581	000	GD NW CREW HUNTINGTON PARK
2200-0583	000	GD NW CREW HONTINGTON PARK
2200-0586		GD NW CREW CRENSHAW
2200-0588	000	GD NW AREA MGR SOUTH COAST
2200-0590	000	
2200-0592	000	GD NW CREW SANTA MONICA GD NW AREA MGR HARBOR CORRIDOR
2200-0593	000	
2200-0595	000	
2200-0598	000	
2200-0601	000	GD NW CREW HOLLYWOOD
2200-0604	000	GD NW PLNG OFFICE MGR/TECH SUPV - C2
2200-0605	000	GD NW SYS PROT SUPV - COMPTON
2200-0606	000	GD NW REG ENGINEER - COMPTON
2200-0608	000	GD NW M&R - COMPTON
2200-0609	000	GD NW WORK ORDER CONTROL - COMPTON
2200-0615	000	NEW BUSINESS
2200-0713	000	GD NW Distribution Construction Manager
2200-0763	000	GD NW MHP Project Manager
2200-0770	000	GD NW DIMP Dreams Project Manager
2200-0792	000	GD SE Anodeless Riser Project (DRIP)
2200-0793	000	Plan and Project Management - Director
2200-0801	000	MGR OPERATIONS SUPPORT
2200-0805	000	PUBLIC AFFAIRS MANAGER - OC
2200-0806	000	Dist Proj Mgr
2200-0808	000	NW DIMP Deploy
2200-0809	000	SE Const Mgr
2200-0810	000	GD SE DIMP Dreams/MHP Area Manager
2200-0811	000	PUBLIC AFFAIRS MANAGER - LA
2200-0812	000	GD SE MHP Project Manager
2200-0813	000	GD SE DIMP Dreams Project Manager
2200-0814	000	GD SE DIMP Deployment Area Manager
2200-0815	000	GD SE Residential Meter Protection (RMP)
2200-0816	000	GD SE Gas Infra. Protection Proj (GIPP)
2200-0817	000	GD SE Sewer Lateral Insp. Proj. (SLIP)
2200-0818	000	PUBLIC AFFAIRS MANAGER -INLAND
2200-0821	000	HP Recon
2200-0822	000	Res Build
2200-0823	000	SE RMS Mgr
2200-0824	000	Paving Inventory Elimination Project
2200-0825	000	PUBLIC AFFAIRS MANAGER -NORTH
2200-0847	000	NW RMS Mgr
2200-0855	000	TSS DIMP Chatsworth
2200-0856	000	NW PIng Mgr DIMP DREAMS

Area: GAS DISTRIBUTION

Witness: Mario A. Aguirre

Coot Conton	Cul	Description
Cost Center 2200-0857	<u>Sub</u> 000	Description GD NW TSS (PPA SUP) - Compton
2200-0858	000	TSS DIMP Anaheim
2200-0859	000	TSS DIMP Redlands
2200-0862	000	DRIP
2200-0863	000	Gas Infrastructure Protection(GIPP/RMPP)
2200-0864	000	Research Data
2200-0882	000	MHP Acct
2200-0883	000	DIMP Deploy
2200-0000	000	COMPTON TSS
2200-0983	000	MAJOR CAPITAL PROJECTS - SE
2200-0984	000	GIS DATA QUALITY IMPROVEMENT
2200-0304	000	PROJECT DEVELOPMENT
2200-1135	000	PROCESS MGMT & PROJECT CONTROLS
2200-1136	000	GD SE ROVING CONST CREW FIELD ANAHEIM
2200-1137	000	GD NW ROVING CONST CREW FIELD COMPTON
2200-1174	000	GD NW TECH SUPV - DREAMS
2200-1182	000	GD SE AREA MGR DESERT VALLEY
2200-1210	000	GD SE TSS (PPA SUP)-REDLANDS 1
2200-1340	000	GD SE PLANNING AND ENGINEERING PI
2200-2079	000	GD SE CREW MURRIETA
2200-2080	000	GD SE CREW BEAUMONT
2200-2084	000	GD NW TECH SUPV - COMPTON 1
2200-2085	000	GD SE TSS-ANAHEIM 2
2200-2092	000	VP GAS OPERATIONS NSS
2200-2098	000	MAJOR CAPITAL PROJECTS - NW
2200-2107	000	GD SE HIGH PRESSURE CONST (EAST)
2200-2115	000	GD NW ENVIRONMENTAL
2200-2122	000	FIBRE IN GAS ADMIN COSTS & REVENUE
2200-2141	000	GD SE ASSET M&I MANAGER
2200-2145	000	GD SE SDGE PM - 2100-3459
2200-2149	000	GD NW RGN SPEC PROJ 3 (FKA DOM)
2200-2150	000	GD NW RGN SPEC PROJ 1 (FKA DOM)
2200-2183	000	VP GAS OPS MISC
2200-2191	000	GD NW TECH SUPV - CHATS/COMP
2200-2192	000	GD NW LEAKAGE-COMPTON
2200-2208	000	DIRECTOR PUBLIC AFFAIRS
2200-2218	000	GD SE AREA MGR MOUNTAIN PASS
2200-2219	000	GD SE RGN SPEC PROJ 9 (FKA BEAUM DOM)
2200-2220	000	GD SE RGN SPEC PROJ 6 (FKA CHINO DOM)
2200-2221	000	GD SE AREA MGR INLAND SOUTH
2200-2222	000	GD SE RGN SPEC PROJ 8 (FKA RAM DOM)
2200-2223	000	GD SE RCC FIELD
2200-2227	000	NW ROVING CONST CREW MGMT
2200-2228	000	GD NW ROVING CONST CREW FIELD
2200-2230	000	RES METER PROTECT PR

Area: GAS DISTRIBUTION

Witness: Mario A. Aguirre

Cost Center	<u>Sub</u>	Description
2200-2232	000	GD SE RGN SPEC PROJ 7 (FKA YUCCA DOM)
2200-2233	000	GD SE CREW YUCCA
2200-2236	000	GD SE RPPM-REDLANDS
2200-2243	000	SPECIAL PORTFOLIO PROJECTS
2200-2259	000	GD NW REG PIPELINE PLNG - DO NOT USE
2200-2357	000	PROJ MGR-GAS INFRASTRUCTURE PROTN PROGRM
2200-2358	000	PROJ MGR-SEWER LATERAL INSPECTN PROGM
2200-2381	000	MHP PLANNING AND CONSTRUCTION
2200-2422	000	GD SE PSEP PROF TRAINING (EAST)
2200-2423	000	GD NW REG PSEP PROF N - DO NOT USE
2200-2424	000	GD NW REG PSEP PROF P - DO NOT USE
2200-2425	000	GD SE PSEP PROF TRAINING (SOUTH)
2200-2438	000	GD NW HP CONST - DO NOT USE
2200-2439	000	GD SE HIGH PRESSURE CONST (SOUTH)
2200-2471	000	Proj Mgr-Anodeless Riser Program
2200-2531	000	GAS DISTR. PLANNING & CAPITAL STRATEGY
2200-2532	000	DIMP DREAMS
2200-2541	000	MHP CUST PRG PMO MGR
2200-2545	000	MHP OUTREACH
2200-2546	000	MHP SUPPORT
2200-2611	000	DIR WORK PLNG & RESOURCE MGMT
2200-2612	000	CONT IMPROVEMENT OPS MGR
2200-2613	000	GAS OPS PROJECT MANAGER