

Application of SOUTHERN CALIFORNIA GAS)
COMPANY for authority to update its gas revenue)
requirement and base rates)
effective January 1, 2019 (U 904-G))

Application No. 17-10-___

Exhibit No.: (SCG-08-WP)

WORKPAPERS TO
PREPARED DIRECT TESTIMONY
OF MICHAEL A. BERMEL
ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

OCTOBER 2017



2019 General Rate Case - APP
INDEX OF WORKPAPERS

Exhibit SCG-08-WP - GAS MAJOR PROJECTS

DOCUMENT	PAGE
Overall Summary For Exhibit No. SCG-08-WP	1
<i>Summary of Non-Shared Services Workpapers</i>	2
Category: A. MAJOR PROJECTS	3
..2MP001.000 - MAJOR PROJECTS MANAGEMENT & OUTREACH	4
..2MP002.000 - PROJECT & CONSTRUCTION MANAGEMENT	12
..2MP003.000 - PROJECT CONTROLS AND ESTIMATING	17
<i>Appendix A: List of Non-Shared Cost Centers</i>	23

Overall Summary For Exhibit No. SCG-08-WP

Area:	GAS MAJOR PROJECTS
Witness:	Michael A. Bermel

Description	In 2016 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
Non-Shared Services	1,258	1,357	1,597	3,971
Shared Services	0	0	0	0
Total	1,258	1,357	1,597	3,971

Note: Totals may include rounding differences.

Southern California Gas Company
 2019 GRC - APP
 Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
 Witness: Michael A. Bermel

Summary of Non-Shared Services Workpapers:

Description	In 2016 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
		2016	2017	2018
A. MAJOR PROJECTS	1,258	1,357	1,597	3,971
Total	1,258	1,357	1,597	3,971

Note: Totals may include rounding differences.

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
Witness: Michael A. Bermel
Category: A. MAJOR PROJECTS
Workpaper: VARIOUS

Summary for Category: A. MAJOR PROJECTS

	In 2016\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
Labor	906	994	1,029	2,503
Non-Labor	352	363	568	1,468
NSE	0	0	0	0
Total	1,258	1,357	1,597	3,971
FTE	6.2	7.6	11.1	26.6

Workpapers belonging to this Category:

2MP001.000 MAJOR PROJECTS MANAGEMENT & OUTREACH

Labor	729	817	852	2,326
Non-Labor	204	215	420	1,320
NSE	0	0	0	0
Total	933	1,032	1,272	3,646
FTE	5.0	6.4	9.9	25.4

2MP002.000 PROJECT & CONSTRUCTION MANAGEMENT

Labor	80	80	80	80
Non-Labor	121	121	121	121
NSE	0	0	0	0
Total	201	201	201	201
FTE	0.8	0.8	0.8	0.8

2MP003.000 PROJECT CONTROLS AND ESTIMATING

Labor	97	97	97	97
Non-Labor	27	27	27	27
NSE	0	0	0	0
Total	124	124	124	124
FTE	0.4	0.4	0.4	0.4

Note: Totals may include rounding differences.

Beginning of Workpaper
2MP001.000 - MAJOR PROJECTS MANAGEMENT & OUTREACH

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
 Witness: Michael A. Bermel
 Category: A. MAJOR PROJECTS
 Category-Sub: 1. MANAGEMENT & OUTREACH
 Workpaper: 2MP001.000 - MAJOR PROJECTS MANAGEMENT & OUTREACH

Activity Description:

This cost center captures the activities and expenses associated with the Vice President of Gas Engineering and Major Projects (2200-2391), Director of Project Management and Construction (2200-2529) and Capital Projects Outreach (2200-2576). Activities include the O&M costs of leadership of engineering and project execution as well as the costs of public education regarding capital projects.

Forecast Explanations:

Labor - Base YR Rec

As the foundation for future labor expense requirements, base year was chosen because the historical costs included other activities that did not represent the anticipated expense requirements. In addition, incremental adjustments to the base year were included to represent the expense requirements anticipated in test year 2019.

Non-Labor - Base YR Rec

As the foundation for future nonlabor expense requirements, base year was chosen because the historical costs included other activities that did not represent the anticipated expense requirements. In addition, incremental adjustments to the base year were included to represent the expense requirements anticipated in test year 2019.

NSE - Base YR Rec

Not Applicable

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		209	110	196	436	729	817	852	2,326	
Non-Labor		9	229	192	138	204	215	420	1,320	
NSE		0	0	0	0	0	0	0	0	
Total		218	339	388	574	933	1,032	1,272	3,646	
FTE		1.6	0.8	1.6	2.9	5.0	6.3	9.8	25.3	

Note: Totals may include rounding differences.

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
Witness: Michael A. Bermel
Category: A. MAJOR PROJECTS
Category-Sub: 1. MANAGEMENT & OUTREACH
Workpaper: 2MP001.000 - MAJOR PROJECTS MANAGEMENT & OUTREACH

Summary of Adjustments to Forecast:

In 2016 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	729	729	729	88	123	1,597	817	852	2,326
Non-Labor	Base YR Rec	204	204	204	11	216	1,116	215	420	1,320
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		933	933	933	99	339	2,713	1,032	1,272	3,646
FTE	Base YR Rec	5.0	5.0	5.0	1.4	4.9	20.4	6.4	9.9	25.4

Forecast Adjustment Details:

Year	Adj Group	Labor	NLbr	NSE	Total	FTE	Adj Type	RefID	
2017	FOF-Ongoing	-63	0	0	-63	0.0	1-Sided Adj	MGONZALX20170622161701857	
Explanation:		This adjustment is to incorporate the benefit from FOF idea #70. Centralize PCM, PSEP and PI project planning & construction of projects for consistency and optimization of workforce.							
2017	FOF-Ongoing	-23	0	0	-23	0.0	1-Sided Adj	MGONZALX20170622165121403	
Explanation:		This adjustment is to incorporate the benefit from FOF idea #920. Improve the close out of high pressure pipeline projects getting them reconciled within 180-days.							
2017	Other	174	11	0	185	1.4	1-Sided Adj	NMOATAZE20170719141119633	
Explanation:		This adjustment reflects the resumption of routine work after temporary assignment to mitigate the Aliso leak, which historical costs have been excluded from this workpaper and the base-year forecast methodology.							
2017 Total		88	11	0	99	1.4			

2018 RAMP-Post Filing Incre 12 5 0 17 0.5 1-Sided Adj MGONZALX20170310065329757

Explanation: Adjustment to incorporate the O&M forecast of the Distribution Operations Control Center (DOCC). See DOCC Supplemental Workpaper.

2018 FOF-Ongoing -127 0 0 -127 0.0 1-Sided Adj MGONZALX20170622162505683

Explanation: This adjustment is to incorporate the non balanced O&M benefit from FOF idea #70. Centralize PCM, PSEP and PI project planning & construction of projects for consistency and optimization of workforce.

2018 FOF-Ongoing -116 0 0 -116 0.0 1-Sided Adj MGONZALX20170622164947807

Explanation: This adjustment is to incorporate the O&M non-balanced benefit from FOF idea #60. Create formalized process(aka playbook) of executing projects for the optimization of work.

Note: Totals may include rounding differences.

SCG/GAS MAJOR PROJECTS/Exh No:SCG-08-WP/Witness: M. Bermel

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
 Witness: Michael A. Bermel
 Category: A. MAJOR PROJECTS
 Category-Sub: 1. MANAGEMENT & OUTREACH
 Workpaper: 2MP001.000 - MAJOR PROJECTS MANAGEMENT & OUTREACH

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>	
2018	FOF-Ongoing	-91	0	0	-91	0.0	1-Sided Adj	MGONZALX20170622165141123	
Explanation:		This adjustment is to incorporate the non balanced O&M benefit from FOF idea #920. Improve the close out of high pressure pipeline projects getting them reconciled within 180-days.							
2018	Other	200	100	0	300	2.0	1-Sided Adj	NMOATAZE20170719125036247	
Explanation:		This adjustment is to include O&M costs for the PIMS related work.							
2018	Other	71	100	0	171	1.0	1-Sided Adj	NMOATAZE20170719131446850	
Explanation:		Adding in the forecasted O&M for the Methane Sensors and Fiber Optics technology projects.							
2018	Other	174	11	0	185	1.4	1-Sided Adj	NMOATAZE20170719141315123	
Explanation:		This adjustment reflects the resumption of routine work after temporary assignment to mitigate the Aliso leak, which historical costs have been excluded from this workpaper and the base-year forecast methodology.							
2018 Total		123	216	0	339	4.9			
2019	FOF-Ongoing	-1	0	0	-1	0.0	1-Sided Adj	MGONZALX20170307150439810	
Explanation:		Adjustment to eliminate duplication of capital project outreach roles throughout SoCalGas and leverage expertise of Capital Projects in the Outreach group. Fueling our Future idea number 600, group name 8-SCG Staff Support including External affairs.							
2019	RAMP-Post Filing Incre	997	401	0	1,398	10.0	1-Sided Adj	MGONZALX20170310065356630	
Explanation:		Adjustment to incorporate the O&M forecast of the Distribution Operations Control Center (DOCC). See DOCC Supplemental Workpaper.							
2019	FOF-Ongoing	-127	0	0	-127	0.0	1-Sided Adj	MGONZALX20170622162523943	
Explanation:		This adjustment is to incorporate the non balanced O&M benefit from FOF idea #70. Centralize PCM, PSEP and PI project planning & construction of projects for consistency and optimization of workforce.							
2019	FOF-Ongoing	-155	-49	0	-204	0.0	1-Sided Adj	MGONZALX20170622165014980	
Explanation:		This adjustment is to incorporate the benefit from FOF idea #60. Create formalized process(aka playbook) of executing projects for the optimization of work.							
2019	FOF-Ongoing	-91	0	0	-91	0.0	1-Sided Adj	MGONZALX20170622165153627	
Explanation:		This adjustment is to incorporate the non balanced O&M benefit from FOF idea #920. Improve the close out of high pressure pipeline projects getting them reconciled within 180-days.							

Note: Totals may include rounding differences.

SCG/GAS MAJOR PROJECTS/Exh No:SCG-08-WP/Witness: M. Bermel

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
 Witness: Michael A. Bermel
 Category: A. MAJOR PROJECTS
 Category-Sub: 1. MANAGEMENT & OUTREACH
 Workpaper: 2MP001.000 - MAJOR PROJECTS MANAGEMENT & OUTREACH

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj_Type</u>	<u>RefID</u>
2019	Other	600	540	0	1,140	6.0	1-Sided Adj	NMOATAZE20170719130051190
Explanation:		This adjustment is to include O&M costs for the PIMS related work.						
2019	Other	200	213	0	413	3.0	1-Sided Adj	NMOATAZE20170719132023497
Explanation:		Adding in the O&M forecast for the Methane Sensors and Fiber technology projects.						
2019	Other	174	11	0	185	1.4	1-Sided Adj	NMOATAZE20170719141331950
Explanation:		This adjustment reflects the resumption of routine work after temporary assignment to mitigate the Aliso leak, which historical costs have been excluded from this workpaper and the base-year forecast methodology.						
2019 Total		1,597	1,116	0	2,713	20.4		

Note: Totals may include rounding differences.

SCG/GAS MAJOR PROJECTS/Exh No:SCG-08-WP/Witness: M. Bermel

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
Witness: Michael A. Bermel
Category: A. MAJOR PROJECTS
Category-Sub: 1. MANAGEMENT & OUTREACH
Workpaper: 2MP001.000 - MAJOR PROJECTS MANAGEMENT & OUTREACH

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	164	88	161	366	800
Non-Labor	8	227	193	138	215
NSE	0	0	0	0	0
Total	173	314	354	504	1,015
FTE	1.4	0.7	1.4	2.5	5.7
Adjustments (Nominal \$) **					
Labor	0	0	0	0	-174
Non-Labor	0	0	0	0	-11
NSE	0	0	0	0	0
Total	0	0	0	0	-185
FTE	0.0	0.0	0.0	0.0	-1.4
Recorded-Adjusted (Nominal \$)					
Labor	164	88	161	366	626
Non-Labor	8	227	193	138	204
NSE	0	0	0	0	0
Total	173	314	354	504	830
FTE	1.4	0.7	1.4	2.5	4.3
Vacation & Sick (Nominal \$)					
Labor	26	15	26	59	103
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	26	15	26	59	103
FTE	0.2	0.1	0.2	0.4	0.7
Escalation to 2016\$					
Labor	19	7	9	10	0
Non-Labor	0	3	-1	0	0
NSE	0	0	0	0	0
Total	19	10	8	11	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	209	110	196	436	729
Non-Labor	9	229	192	138	204
NSE	0	0	0	0	0
Total	218	339	388	574	933
FTE	1.6	0.8	1.6	2.9	5.0

* 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.

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
 Witness: Michael A. Bermel
 Category: A. MAJOR PROJECTS
 Category-Sub: 1. MANAGEMENT & OUTREACH
 Workpaper: 2MP001.000 - MAJOR PROJECTS MANAGEMENT & OUTREACH

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	0	0	0	-174
Non-Labor	0	0	0	0	-11
NSE	0	0	0	0	0
Total	0	0	0	0	-185
FTE	0.0	0.0	0.0	0.0	-1.4

Detail of Adjustments to Recorded:

Year	Adj Group	Labor	NLbr	NSE	FTE	Adj Type	RefID
2012 Total		0	0	0	0.0		
2013 Total		0	0	0	0.0		
2014 Total		0	0	0	0.0		
2015 Total		0	0	0	0.0		
2016	Aliso	-72	-1	0	-0.6	1-Sided Adj	JJBUNTIN20170502135416187
Explanation:	This adjustment was made because this work (internal order number 300775156 & 300777009) was related to the Aliso Canyon Incident.						
2016	Aliso	-58	-8	0	-0.3	1-Sided Adj	JJBUNTIN20170502135758923
Explanation:	This adjustment was made because this work (internal order number 300775156 & 300777009) was related to the Aliso Canyon Incident.						
2016	Aliso	-43	-2	0	-0.5	1-Sided Adj	JJBUNTIN20170502140231430
Explanation:	This adjustment was made because this work (internal order number 300775156) was related to the Aliso Canyon Incident.						
2016 Total		-174	-11	0	-1.4		

Note: Totals may include rounding differences.

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
Witness: Michael A. Bermel
Category: A. MAJOR PROJECTS
Category-Sub: 1. MANAGEMENT & OUTREACH
Workpaper: 2MP001.000 - MAJOR PROJECTS MANAGEMENT & OUTREACH

RAMP Item # 1

Ref ID: MGONZALX20170628161809247

RAMP Chapter: SCG-10

Program Name: Distribution Operations Control Center

Program Description: Electronic Pressure Monitoring hourly data into the Gas Control SCADA system.

Risk/Mitigation:

Risk: Medium Pressure Pipeline Failure

Mitigation: Real-time pressure data and providing remote control to high priority distribution sites.

Forecast CPUC Cost Estimates (\$000)

	<u>2017</u>	<u>2018</u>	<u>2019</u>
Low	0	0	0
High	0	0	0

Funding Source: CPUC-GRC

Forecast Method: Average

Work Type: Mandated

Work Type Citation: Gas Control

Historical Embedded Cost Estimates (\$000)

Embedded Costs: 0

Explanation: This is an incremental proposed post RAMP filing project in support of medium pressure pipeline failure.

Beginning of Workpaper
2MP002.000 - PROJECT & CONSTRUCTION MANAGEMENT

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
 Witness: Michael A. Bermel
 Category: A. MAJOR PROJECTS
 Category-Sub: 2. PROJECT & CONSTRUCTION MANAGEMENT
 Workpaper: 2MP002.000 - PROJECT & CONSTRUCTION MANAGEMENT

Activity Description:

This cost center captures the activities and O&M expenses associated with the management and execution of projects both regarding pipeline work and facilities work including but not limited to regulator stations, meter stations, compressor stations etc. The cost centers included are Project and Construction Management - Pipeline (2200-0317) and Project and Construction Management (2200-2552).

Forecast Explanations:

Labor - Base YR Rec

As the foundation for future labor expense requirements, base year was chosen because the historical costs included other activities that did not represent the anticipated expense requirements. In addition, incremental adjustments to the base year were included to represent the expense requirements anticipated in test year 2019.

Non-Labor - Base YR Rec

As the foundation for future nonlabor expense requirements, base year was chosen because the historical costs included other activities that did not represent the anticipated expense requirements. In addition, incremental adjustments to the base year were included to represent the expense requirements anticipated in test year 2019.

NSE - Base YR Rec

Not Applicable

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		5	39	91	419	80	79	79	79	
Non-Labor		59	86	243	1,859	121	121	121	121	
NSE		0	0	0	0	0	0	0	0	
Total		65	125	334	2,279	201	200	200	200	
FTE		0.0	0.2	0.8	4.0	0.8	0.8	0.8	0.8	

Note: Totals may include rounding differences.

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
 Witness: Michael A. Bermel
 Category: A. MAJOR PROJECTS
 Category-Sub: 2. PROJECT & CONSTRUCTION MANAGEMENT
 Workpaper: 2MP002.000 - PROJECT & CONSTRUCTION MANAGEMENT

Summary of Adjustments to Forecast:

In 2016 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	80	80	80	0	0	0	80	80	80
Non-Labor	Base YR Rec	121	121	121	0	0	0	121	121	121
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		201	201	201	0	0	0	201	201	201
FTE	Base YR Rec	0.8	0.8	0.8	0.0	0.0	0.0	0.8	0.8	0.8

Forecast Adjustment Details:

Year	Adj Group	Labor	NLbr	NSE	Total	FTE	Adj Type	RefID
2017 Total		0	0	0	0	0.0		

2018 FOF-Ongoing 0 0 0 0 0.0 1-Sided Adj MGONZALX20170310213205100

Explanation: FoF ideas 60&70. Create formalized process(aka playbook) of executing projects for the optimization of work. (capital savings). Centralize PCM, PSEP and PI project planning & construction of projects for consistency and optimization of workforce.(capital savings)

2018 Total		0	0	0	0	0.0		
------------	--	---	---	---	---	-----	--	--

2019 Total		0	0	0	0	0.0		
------------	--	---	---	---	---	-----	--	--

Note: Totals may include rounding differences.

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
Witness: Michael A. Bermel
Category: A. MAJOR PROJECTS
Category-Sub: 2. PROJECT & CONSTRUCTION MANAGEMENT
Workpaper: 2MP002.000 - PROJECT & CONSTRUCTION MANAGEMENT

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	4	31	75	352	83
Non-Labor	58	85	244	1,855	121
NSE	0	0	0	0	0
Total	62	117	319	2,207	204
FTE	0.0	0.2	0.7	3.3	0.9
Adjustments (Nominal \$) **					
Labor	0	0	0	0	-14
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	-14
FTE	0.0	0.0	0.0	0.0	-0.2
Recorded-Adjusted (Nominal \$)					
Labor	4	31	75	352	69
Non-Labor	58	85	244	1,855	121
NSE	0	0	0	0	0
Total	62	117	319	2,207	190
FTE	0.0	0.2	0.7	3.3	0.7
Vacation & Sick (Nominal \$)					
Labor	1	5	12	57	11
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	1	5	12	57	11
FTE	0.0	0.0	0.1	0.6	0.1
Escalation to 2016\$					
Labor	0	3	4	10	0
Non-Labor	2	1	-1	5	0
NSE	0	0	0	0	0
Total	2	4	3	15	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	5	39	91	419	80
Non-Labor	59	86	243	1,859	121
NSE	0	0	0	0	0
Total	65	125	334	2,279	201
FTE	0.0	0.2	0.8	3.9	0.8

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
 Witness: Michael A. Bermel
 Category: A. MAJOR PROJECTS
 Category-Sub: 2. PROJECT & CONSTRUCTION MANAGEMENT
 Workpaper: 2MP002.000 - PROJECT & CONSTRUCTION MANAGEMENT

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	0	0	0	-14
Non-Labor	0	0	0	0	-0.050
NSE	0	0	0	0	0
Total	0	0	0	0	-14
FTE	0.0	0.0	0.0	0.0	-0.2

Detail of Adjustments to Recorded:

Year	Adj Group	Labor	NLbr	NSE	FTE	Adj Type	RefID
2012 Total		0	0	0	0.0		
2013 Total		0	0	0	0.0		
2014 Total		0	0	0	0.0		
2015 Total		0	0	0	0.0		
2016	Aliso	-4	0	0	-0.1	1-Sided Adj	JJBUNTIN20170502140342870
Explanation:	This adjustment was made because this work (internal order number 300775156) was related to the Aliso Canyon Incident.						
2016	Aliso	-10	0	0	-0.1	1-Sided Adj	JJBUNTIN20170502140501807
Explanation:	This adjustment was made because this work (internal order number 300775156) was related to the Aliso Canyon Incident.						
2016 Total		-14	0	0	-0.2		

Note: Totals may include rounding differences.

Beginning of Workpaper
2MP003.000 - PROJECT CONTROLS AND ESTIMATING

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
 Witness: Michael A. Bermel
 Category: A. MAJOR PROJECTS
 Category-Sub: 3. PROJECT CONTROLS
 Workpaper: 2MP003.000 - PROJECT CONTROLS AND ESTIMATING

Activity Description:

This cost center captures the activities and O&M expenses associated with the improvement of project execution efficiency as well as the cost estimation of projects. Additionally, this workpaper covers O&M costs of quality assessment of projects including compliance with governing entities and public safety. The cost centers included are Project Controls and Estimating (2200-2394), Quality Risk and Compliance Management (2200-2530) and Gas Contractor Controls (2200-2553)

Forecast Explanations:

Labor - Base YR Rec

As the foundation for future labor expense requirements, base year was chosen because the historical costs included other activities that did not represent the anticipated expense requirements. In addition, incremental adjustments to the base year were included to represent the expense requirements anticipated in test year 2019.

Non-Labor - Base YR Rec

As the foundation for future labor expense requirements, base year was chosen because the historical costs included other activities that did not represent the anticipated expense requirements. In addition, incremental adjustments to the base year were included to represent the expense requirements anticipated in test year 2019.

NSE - Base YR Rec

There are no non-standard escalation expenses in this work group.

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		0	0	44	102	97	97	97	97	
Non-Labor		0	0	157	13	27	27	27	27	
NSE		0	0	0	0	0	0	0	0	
Total		0	0	201	115	124	124	124	124	
FTE		0.0	0.0	0.2	0.8	0.5	0.4	0.4	0.4	

Note: Totals may include rounding differences.

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
 Witness: Michael A. Bermel
 Category: A. MAJOR PROJECTS
 Category-Sub: 3. PROJECT CONTROLS
 Workpaper: 2MP003.000 - PROJECT CONTROLS AND ESTIMATING

Summary of Adjustments to Forecast:

In 2016 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	97	97	97	0	0	0	97	97	97
Non-Labor	Base YR Rec	27	27	27	0	0	0	27	27	27
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		124	124	124	0	0	0	124	124	124
FTE	Base YR Rec	0.4	0.4	0.4	0.0	0.0	0.0	0.4	0.4	0.4

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
-------------	------------------	--------------	-------------	------------	--------------	------------	-----------------	--------------

Note: Totals may include rounding differences.

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
Witness: Michael A. Bermel
Category: A. MAJOR PROJECTS
Category-Sub: 3. PROJECT CONTROLS
Workpaper: 2MP003.000 - PROJECT CONTROLS AND ESTIMATING

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	36	534	881
Non-Labor	0	0	158	38	69
NSE	0	0	0	0	0
Total	0	0	193	571	950
FTE	0.0	0.0	0.2	4.8	8.2
Adjustments (Nominal \$) **					
Labor	0	0	0	-448	-798
Non-Labor	0	0	0	-24	-42
NSE	0	0	0	0	0
Total	0	0	0	-473	-840
FTE	0.0	0.0	0.0	-4.1	-7.8
Recorded-Adjusted (Nominal \$)					
Labor	0	0	36	86	84
Non-Labor	0	0	158	13	27
NSE	0	0	0	0	0
Total	0	0	193	99	110
FTE	0.0	0.0	0.2	0.7	0.4
Vacation & Sick (Nominal \$)					
Labor	0	0	6	14	14
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	6	14	14
FTE	0.0	0.0	0.0	0.1	0.1
Escalation to 2016\$					
Labor	0	0	2	2	0
Non-Labor	0	0	-1	0	0
NSE	0	0	0	0	0
Total	0	0	2	2	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	0	0	44	102	97
Non-Labor	0	0	157	13	27
NSE	0	0	0	0	0
Total	0	0	201	115	124
FTE	0.0	0.0	0.2	0.8	0.5

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
 Witness: Michael A. Bermel
 Category: A. MAJOR PROJECTS
 Category-Sub: 3. PROJECT CONTROLS
 Workpaper: 2MP003.000 - PROJECT CONTROLS AND ESTIMATING

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	0	0	-448	-798
Non-Labor	0	0	0	-24	-42
NSE	0	0	0	0	0
Total	0	0	0	-473	-840
FTE	0.0	0.0	0.0	-4.1	-7.8

Detail of Adjustments to Recorded:

Year	Adj Group	Labor	NLbr	NSE	FTE	Adj Type	RefID
2012 Total		0	0	0	0.0		
2013 Total		0	0	0	0.0		
2014 Total		0	0	0	0.0		
2015	Other	2	0	0	0.0	CCTR Transf From 2200-2537.000	PDOMAGAS20161205102322923
Explanation: Transfer Non-PSEP O&M costs to Gas Engineering from 2200-2537 to 2200-2530.							
2015	Other	-90	-8	0	-0.8	CCTR Transf To 2200-2551.000	MGONZALX20170309113231720
Explanation: Adjustment to transfer the historical expenditures from cost center 2200-2530 to workpaper group 2200-2551 due to the reorganization early 2017.							
2015	Other	-359	-17	0	-3.3	CCTR Transf To 2200-7241.000	MGONZALX20170512123043930
Explanation: Adjustment to manually transfer the historical expenditures in cost center 2200-2553 from the Major Projects witness area to proxy cost center 2200-7241. This proxy cost center will represent 2200-2553 within the System Integrity witness area and its forecast.							
2015 Total		-448	-24	0	-4.1		
2016	Other	2	0	0	0.0	CCTR Transf From 2200-2537.000	PDOMAGAS20161205102152930
Explanation: Transfer Non-PSEP O&M costs to Gas Engineering from 2200-2537 to 2200-2530.							
2016	Other	-2	0	0	0.0	1-Sided Adj	MGONZALX20170307132910383
Explanation: Adjustment to correct an erroneous transfer from cost center 2200-2537 to cost center 2200-2530.							

Note: Totals may include rounding differences.

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
 Witness: Michael A. Bermel
 Category: A. MAJOR PROJECTS
 Category-Sub: 3. PROJECT CONTROLS
 Workpaper: 2MP003.000 - PROJECT CONTROLS AND ESTIMATING

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
2016	Other	-351	-23	0	-3.6	CCTR Transf To 2200-2551.000	MGONZALX20170309113342210
Explanation: Adjustment to transfer the historical expenditures from cost center 2200-2530 to workpaper group 2200-2551 due to the reorganization early 2017.							
2016	Aliso	-17	0	0	-0.1	1-Sided Adj	JJBUNTIN20170502140648230
Explanation: This adjustment was made because this work (internal order number 300775156 & 300777009) was related to the Aliso Canyon Incident.							
2016	Other	-430	-20	0	-4.1	CCTR Transf To 2200-7241.000	MGONZALX20170512123217157
Explanation: Adjustment to manually transfer the historical expenditures in cost center 2200-2553 from the Major Projects witness area to proxy cost center 2200-7241. This proxy cost center will represent 2200-2553 within the System Integrity witness area and its forecast.							
2016 Total		-798	-42	0	-7.8		

Note: Totals may include rounding differences.

Southern California Gas Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: GAS MAJOR PROJECTS
Witness: Michael A. Bermel

Appendix A: List of Non-Shared Cost Centers

Cost Center	Sub	Description
2200-0317	000	PROJECT & CONSTRUCTION MGMT - PIPELINE
2200-2391	000	VP GAS ENGINEERING & MAJOR PROJECTS
2200-2394	000	PROJ. CONTROLS & ESTIMATING
2200-2529	000	DIRECTOR PROJECT MGMT & CONSTRUCTION
2200-2530	000	QUALITY RISK & COMPLIANCE MGMT
2200-2552	000	PROJ & CONSTRUCTION MGMT - GAS FACILITIE
2200-2553	000	GAS CONTRACTOR CONTROLS
2200-2576	000	CAPITAL PROJECTS OUTREACH