

Application of SAN DIEGO GAS & ELECTRIC)
COMPANY for authority to update its gas and)
electric revenue requirement and base rates)
effective January 1, 2019 (U 902-M))

Application No. 17-10-____

Exhibit No.: (SDG&E-16-WP)

WORKPAPERS TO
PREPARED DIRECT TESTIMONY
OF DANIEL S. BAERMAN
ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

OCTOBER 2017



**2019 General Rate Case - APP
INDEX OF WORKPAPERS**

Exhibit SDG&E-16-WP - ELECTRIC GENERATION & SONGS

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Overall Summary For Exhibit No. SDG&E-16-WP

Area:	ELECTRIC GENERATION & SONGS
Witness:	Daniel S. Baerman

Description	In 2016 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
Non-Shared Services	36,435	41,488	40,013	62,316
Shared Services	747	1,095	1,095	1,095
Total	37,182	42,583	41,108	63,411

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
 2019 GRC - APP
 Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman

Summary of Non-Shared Services Workpapers:

Description	In 2016 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
A. Generation Plant	34,785	39,640	38,103	60,371
B. Administration	411	441	469	469
C. SONGS	1,239	1,407	1,441	1,476
Total	36,435	41,488	40,013	62,316

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: A. Generation Plant
Workpaper: VARIOUS

Summary for Category: A. Generation Plant

	In 2016\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
Labor	7,357	7,344	7,360	7,360
Non-Labor	21,830	26,556	25,013	47,515
NSE	5,600	5,740	5,730	5,496
Total	34,787	39,640	38,103	60,371
FTE	69.3	71.6	71.8	71.8

Workpapers belonging to this Category:

1EG003.000 Generation Plant Palomar

Labor	4,128	4,076	4,076	4,076
Non-Labor	13,455	15,579	14,467	14,334
NSE	0	140	143	146
Total	17,583	19,795	18,686	18,556
FTE	37.0	38.5	38.5	38.5

1EG006.000 Generation Plant Desert Star

Labor	2,741	2,712	2,712	2,712
Non-Labor	6,078	8,095	7,660	7,499
NSE	5,600	5,600	5,587	5,350
Total	14,419	16,407	15,959	15,561
FTE	27.8	28.1	28.1	28.1

1EG002.000 Generation Plant Miramar

Labor	276	356	356	356
Non-Labor	1,139	2,024	2,024	2,024
NSE	0	0	0	0
Total	1,415	2,380	2,380	2,380
FTE	2.5	3.3	3.3	3.3

1EG007.000 Generation Plant Cuyamaca Peak

Labor	212	200	216	216
Non-Labor	1,158	858	862	862
NSE	0	0	0	0
Total	1,370	1,058	1,078	1,078
FTE	2.0	1.7	1.9	1.9

1EG005.000 Generation Plant Otay Mesa

Labor	0	0	0	0
Non-Labor	0	0	0	22,796
NSE	0	0	0	0
Total	0	0	0	22,796
FTE	0.0	0.0	0.0	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper
1EG003.000 - Generation Plant Palomar

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 1. Generation Plant Palomar
 Workpaper: 1EG003.000 - Generation Plant Palomar

Activity Description:

Generation Plant Palomar encompasses the operation and maintenance of the Combined Cycle Generating Plant at Palomar Energy Center. Labor costs include Supervision, Maintenance, Operations and Engineering personnel. Non-labor costs include items such as industrial gases, chemicals, water, and maintenance parts and activities.

Forecast Explanations:

Labor - 5-YR Average

The 5-YR average method was selected because it most accurately reflects current staffing levels and it represents a reasonable foundation for projecting the future needs of the organization.

Non-Labor - 5-YR Average

The 5-YR average method was selected because it represents a reasonable foundation for projecting the future needs of the organization as it includes a variety of planned and unplanned maintenance events and provides the longest history of recorded spend.

NSE - 5-YR Average

N/A

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		3,654	3,663	4,066	4,045	4,128	4,076	4,076	4,076	
Non-Labor		18,005	14,583	20,752	12,238	13,455	15,579	14,467	14,334	
NSE		0	0	0	0	0	140	143	146	
Total		21,659	18,245	24,818	16,283	17,583	19,795	18,686	18,556	
FTE		35.1	36.0	38.1	37.2	37.0	38.5	38.5	38.5	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: A. Generation Plant
Category-Sub: 1. Generation Plant Palomar
Workpaper: 1EG003.000 - Generation Plant Palomar

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	5-YR Average	3,911	3,911	3,911	165	165	165	4,076	4,076	4,076
Non-Labor	5-YR Average	15,807	15,807	15,807	-228	-1,340	-1,473	15,579	14,467	14,334
NSE	5-YR Average	0	0	0	140	143	146	140	143	146
Total		19,718	19,718	19,718	77	-1,032	-1,162	19,795	18,686	18,556
FTE	5-YR Average	36.7	36.7	36.7	1.8	1.8	1.8	38.5	38.5	38.5

Forecast Adjustment Details:

Year	Adj Group	Labor	NLbr	NSE	Total	FTE	Adj Type	RefID	
2017	FOF-Ongoing	0	-68	0	-68	0.0	1-Sided Adj	KMANUEL20161129125427203	
Explanation:		FOF Idea #1470 Reduce water consumption by improving cooling tower chemical control.							
2017	FOF-Ongoing	0	-10	0	-10	0.0	1-Sided Adj	KMANUEL20161129125616430	
Explanation:		FOF Idea #1500 Modify storm water drain system at Palomar to divert storm water to the cooling tower.							
2017	Other	165	53	0	218	1.8	1-Sided Adj	GSTMARIE20170210132118883	
Explanation:		Increase for operating and maintaining the new Escondido and El Cajon Battery Energy Storage System facilities and Ramona Solar Energy Project facility.							
2017	Other	0	0	140	140	0.0	1-Sided Adj	GSTMARIE20170223090938247	
Explanation:		Contracted operation and maintenance costs for Ramona Solar Energy Project facility.							
2017	FOF-Ongoing	0	-203	0	-203	0.0	1-Sided Adj	GSTMARIE20170719102221950	
Explanation:		FOF Group #101 Contracting/procurement efficiencies.							
2017 Total		165	-228	140	77	1.8			

2018	FOF-Ongoing	0	-38	0	-38	0.0	1-Sided Adj	KMANUEL20161129125025760	
Explanation:		FOF Idea #270 Negotiate longer term contracts for maintenance for greater buying leverage-contractor services.							
2018	FOF-Ongoing	0	-270	0	-270	0.0	1-Sided Adj	KMANUEL20161129125452813	
Explanation:		FOF Idea #1470 Reduce water consumption by improving cooling tower chemical control.							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 1. Generation Plant Palomar
 Workpaper: 1EG003.000 - Generation Plant Palomar

<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	0	-40	0	-40	0.0	1-Sided Adj	KMANUEL20161129125640593
Explanation:		FOF Idea #1500 Modify storm water drain system at Palomar Energy Center to divert storm water to the cooling tower.						
2018	Other	165	53	0	218	1.8	1-Sided Adj	GSTMARIE20170210132207853
Explanation:		Increase for operating and maintaining the new Escondido and El Cajon Battery Energy Storage System facilities and Ramona Solar Energy Project facility.						
2018	Other	0	0	143	143	0.0	1-Sided Adj	GSTMARIE20170223091025957
Explanation:		Contracted operation and maintenance costs for Ramona Solar Energy Project facility.						
2018	FOF-Ongoing	0	-1,045	0	-1,045	0.0	1-Sided Adj	GSTMARIE20170719102430623
Explanation:		FOF Group #101 Contracting/procurement efficiencies.						
2018 Total		165	-1,340	143	-1,032	1.8		
2019	FOF-Ongoing	0	-150	0	-150	0.0	1-Sided Adj	KMANUEL20161129125052810
Explanation:		FOF Idea #270 Negotiate longer term contracts for maintenance for greater buying leverage-contractor services.						
2019	FOF-Ongoing	0	-1,066	0	-1,066	0.0	1-Sided Adj	GSTMARIE20170719102503580
Explanation:		FOF Group #101 Contracting/procurement efficiencies.						
2019	FOF-Ongoing	0	-270	0	-270	0.0	1-Sided Adj	KMANUEL20161129125518283
Explanation:		FOF Idea #1470 Reduce water consumption by improving cooling tower chemical control.						
2019	FOF-Ongoing	0	-40	0	-40	0.0	1-Sided Adj	KMANUEL20161129125711370
Explanation:		FOF Idea #1500 Modify storm water drain system at Palomar to divert storm water to the cooling tower.						
2019	Other	165	53	0	218	1.8	1-Sided Adj	GSTMARIE20170210132234063
Explanation:		Increase for operating and maintaining the new Escondido and El Cajon Battery Energy Storage System facilities and Ramona Solar Energy Project facility.						
2019	Other	0	0	146	146	0.0	1-Sided Adj	GSTMARIE20170223091110010
Explanation:		Contracted operation and maintenance costs for Ramona Solar Energy Project facility.						

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
 2019 GRC - APP
 Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 1. Generation Plant Palomar
 Workpaper: 1EG003.000 - Generation Plant Palomar

<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 Total		165	-1,473	146	-1,162	1.8		

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: A. Generation Plant
Category-Sub: 1. Generation Plant Palomar
Workpaper: 1EG003.000 - Generation Plant Palomar

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	2,921	2,954	3,349	3,423	3,540
Non-Labor	24,968	20,830	20,304	13,103	13,455
NSE	0	0	0	0	0
Total	27,889	23,784	23,652	16,526	16,996
FTE	30.1	30.6	32.3	31.7	31.3
Adjustments (Nominal \$) **					
Labor	0	2	0	0	0
Non-Labor	-7,359	-6,397	442	-876	0
NSE	0	0	0	0	0
Total	-7,359	-6,396	442	-876	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	2,921	2,956	3,349	3,423	3,540
Non-Labor	17,609	14,433	20,746	12,227	13,455
NSE	0	0	0	0	0
Total	20,530	17,389	24,095	15,650	16,996
FTE	30.1	30.6	32.3	31.7	31.3
Vacation & Sick (Nominal \$)					
Labor	423	469	535	529	587
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	423	469	535	529	587
FTE	4.9	5.4	5.8	5.5	5.7
Escalation to 2016\$					
Labor	310	238	183	94	0
Non-Labor	396	150	6	11	0
NSE	0	0	0	0	0
Total	706	388	189	105	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	3,654	3,663	4,066	4,045	4,128
Non-Labor	18,005	14,583	20,752	12,238	13,455
NSE	0	0	0	0	0
Total	21,659	18,245	24,818	16,283	17,583
FTE	35.0	36.0	38.1	37.2	37.0

* 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.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 1. Generation Plant Palomar
 Workpaper: 1EG003.000 - Generation Plant Palomar

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	2	0	0	0
Non-Labor	-7,359	-6,397	442	-876	0
NSE	0	0	0	0	0
Total	-7,359	-6,396	442	-876	0
FTE	0.0	0.0	0.0	0.0	0.0

Detail of Adjustments to Recorded:

Year	Adj Group	Labor	NLbr	NSE	FTE	Adj Type	RefID
2012	Other	0	347	0	0.0	1-Sided Adj	KMANUEL20161115091338240
Explanation: Transfer of non-labor expenses from Workpaper 1EG001 (Generation - Plant - Admin) not associated with Workpaper 1EG001. These are Workpaper 1EG003 (Generation Plant Palomar) related expenses.							
2012	Other	0	-7,833	0	0.0	1-Sided Adj	KMANUEL20161115091843620
Explanation: General Electric LTSA costs adjusted out of historical costs due to terminated contract for GE services for Generation Plant Palomar. These costs will not reoccur.							
2012	Other	0	127	0	0.0	1-Sided Adj	KMANUEL20161115091942980
Explanation: Municipal water district base rate adjustment in 2015 back-billed for Years 2012 through 2015. This adjustment is Year 2012 portion.							
2012 Total		0	-7,359	0	0.0		
2013	Other	2	242	0	0.0	1-Sided Adj	KMANUEL20161115093833047
Explanation: Transfer of labor and non-labor expenses from Workpaper 1EG001 (Generation - Plant - Admin) not associated with Workpaper 1EG001. These are Workpaper 1EG003 (Generation Plant Palomar) related expenses.							
2013	Other	0	-6,945	0	0.0	1-Sided Adj	KMANUEL20161115094844877
Explanation: General Electric LTSA costs adjusted out of historical costs due to terminated contract for GE services for Generation Plant Palomar. These costs will not reoccur.							
2013	Other	0	305	0	0.0	1-Sided Adj	KMANUEL20161115094951823
Explanation: Municipal water district base rate adjustment in 2015 back-billed for Years 2012 through 2015. This adjustment is Year 2013 portion.							
2013 Total		2	-6,397	0	0.0		

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 1. Generation Plant Palomar
 Workpaper: 1EG003.000 - Generation Plant Palomar

<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>
2014	Other	0	-2	0	0.0	1-Sided Adj	KMANUEL20161115103352380
Explanation: General Electric LTSA costs adjusted out of historical costs due to terminated contract for GE services for Generation Plant Palomar. These costs will not reoccur.							
2014	Other	0	444	0	0.0	1-Sided Adj	KMANUEL20161115103459837
Explanation: Municipal water district base rate adjustment in 2015 back-billed for Years 2012 through 2015. This adjustment is Year 2014 portion.							
2014 Total		0	442	0	0.0		
2015	Other	0	-876	0	0.0	1-Sided Adj	KMANUEL20161115105250650
Explanation: Municipal water district base rate adjustment in 2015 back-billed for Years 2012 through 2014.							
2015 Total		0	-876	0	0.0		
2016 Total		0	0	0	0.0		

Note: Totals may include rounding differences.

Beginning of Workpaper
1EG006.000 - Generation Plant Desert Star

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 2. Generation Plant Desert Star
 Workpaper: 1EG006.000 - Generation Plant Desert Star

Activity Description:

Generation Plant Desert Star encompasses the operation and maintenance of the combined Cycle Generating Plant at Desert Star Energy Center. Labor costs include Supervision, Administrative, Maintenance, and Operations personnel. Non-labor includes items such as industrial gases, chemicals, water, and maintenance parts and activities. NSE is used to forecast the Desert Star Long Term Service Agreement (LTSA).

Forecast Explanations:

Labor - 5-YR Average

The 5-YR average method was selected because it most accurately reflects current staffing levels and it represents a reasonable foundation for projecting the future needs of the organization.

Non-Labor - 5-YR Average

The 5-YR average method was selected because it represents a reasonable foundation for projecting the future needs of the organization as it includes a variety of planned and unplanned maintenance events and provides the longest history of recorded spend.

NSE - Base YR Rec

The Base Year method was selected for NSE, that includes only Desert Star costs, because it is the most representative of expected LTSA costs in future years based on forecasted operating hours. LTSA cost fluctuations are based on BLS indices, operating hours, and number of unit starts/trips. Since these components can vary greatly on a year-to-year basis, using an average or linear trend does not necessarily represent an accurate picture of the future.

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		2,599	2,540	2,763	2,920	2,741	2,713	2,713	2,713	
Non-Labor		6,738	5,173	13,642	9,375	6,078	8,094	7,659	7,498	
NSE		10,290	10,377	7,161	8,604	5,600	5,600	5,587	5,350	
Total		19,626	18,090	23,566	20,899	14,419	16,407	15,959	15,561	
FTE		26.8	27.2	28.9	29.8	27.8	28.1	28.1	28.1	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: A. Generation Plant
Category-Sub: 2. Generation Plant Desert Star
Workpaper: 1EG006.000 - Generation Plant Desert Star

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	5-YR Average	2,712	2,712	2,712	0	0	0	2,712	2,712	2,712
Non-Labor	5-YR Average	8,201	8,201	8,201	-106	-541	-702	8,095	7,660	7,499
NSE	Base YR Rec	5,600	5,600	5,600	0	-13	-250	5,600	5,587	5,350
Total		16,513	16,513	16,513	-106	-554	-952	16,407	15,959	15,561
FTE	5-YR Average	28.1	28.1	28.1	0.0	0.0	0.0	28.1	28.1	28.1

Forecast Adjustment Details:

Year	Adj Group	Labor	NLbr	NSE	Total	FTE	Adj Type	RefID	
2017	FOF-Ongoing	0	-5	0	-5	0.0	1-Sided Adj	KMANUEL20161129130859217	
Explanation:		FOF Idea #1210 Install real time plant cycling damage monitoring and diagnostic tools for the Heat Recovery Steam Generator (HRSG) and steam turbine.							
2017	FOF-Ongoing	0	-101	0	-101	0.0	1-Sided Adj	GSTMARIE20170719152137333	
Explanation:		FOF Group #101 Contracting/procurement efficiencies.							
2017 Total		0	-106	0	-106	0.0			
2018	FOF-Ongoing	0	0	-13	-13	0.0	1-Sided Adj	KMANUEL20161129130650203	
Explanation:		FOF Idea #270 Negotiate longer term contracts for maint. for greater buying leverage-LTSA variable fee.							
2018	FOF-Ongoing	0	-20	0	-20	0.0	1-Sided Adj	KMANUEL20161129131210797	
Explanation:		FOF Idea #1210 Install real time plant cycling damage monitoring and diagnostic tools for the HRSG and steam turbine.							
2018	FOF-Ongoing	0	-521	0	-521	0.0	1-Sided Adj	GSTMARIE20170719152205043	
Explanation:		FOF Group #101 Contracting/procurement efficiencies.							
2018 Total		0	-541	-13	-554	0.0			
2019	FOF-Ongoing	0	0	-50	-50	0.0	1-Sided Adj	KMANUEL20161129130723030	
Explanation:		FOF Idea #270 Negotiate longer term contracts for maintenance for greater buying leverage-LTSA variable fee.							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 2. Generation Plant Desert Star
 Workpaper: 1EG006.000 - Generation Plant Desert Star

<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	FOF-Ongoing	0	-150	-200	-350	0.0	1-Sided Adj	KMANUEL20161129130821627
Explanation:		FOF Idea #680 Optimize maintenance frequency for gas turbines-increase 12k to 25k operational hrs - LTSA variable fee & contractor services.						
2019	FOF-Ongoing	0	-20	0	-20	0.0	1-Sided Adj	KMANUEL20161129131256940
Explanation:		FOF Idea #1210 Install real time plant cycling damage monitoring and diagnostic tools for the HRSG and steam turbine.						
2019	FOF-Ongoing	0	-532	0	-532	0.0	1-Sided Adj	GSTMARIE20170719152225763
Explanation:		FOF Group #101 Contracting/procurement efficiencies.						
2019 Total		0	-702	-250	-952	0.0		

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: A. Generation Plant
Category-Sub: 2. Generation Plant Desert Star
Workpaper: 1EG006.000 - Generation Plant Desert Star

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	2,077	2,050	2,278	2,471	2,351
Non-Labor	17,569	16,331	21,815	18,827	11,727
NSE	0	0	0	0	0
Total	19,646	18,380	24,093	21,297	14,078
FTE	23.1	23.1	24.5	25.4	23.5
Adjustments (Nominal \$) **					
Labor	0	0	-3	0	0
Non-Labor	-10,979	-11,211	-8,177	-9,461	-5,649
NSE	10,064	10,270	7,159	8,597	5,600
Total	-915	-940	-1,020	-864	-49
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	2,077	2,050	2,275	2,471	2,351
Non-Labor	6,589	5,120	13,638	9,366	6,078
NSE	10,064	10,270	7,159	8,597	5,600
Total	18,730	17,440	23,072	20,433	14,029
FTE	23.1	23.1	24.5	25.4	23.5
Vacation & Sick (Nominal \$)					
Labor	301	325	363	381	390
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	301	325	363	381	390
FTE	3.7	4.1	4.4	4.4	4.3
Escalation to 2016\$					
Labor	220	165	124	68	0
Non-Labor	148	53	4	8	0
NSE	226	107	2	8	0
Total	595	325	130	84	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	2,599	2,540	2,763	2,920	2,741
Non-Labor	6,738	5,173	13,642	9,375	6,078
NSE	10,290	10,377	7,161	8,604	5,600
Total	19,626	18,090	23,566	20,899	14,419
FTE	26.8	27.2	28.9	29.8	27.8

* 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.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: A. Generation Plant
Category-Sub: 2. Generation Plant Desert Star
Workpaper: 1EG006.000 - Generation Plant Desert Star

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	0	-3	0	0
Non-Labor	-10,979	-11,211	-8,177	-9,461	-5,649
NSE	10,064	10,270	7,159	8,597	5,600
Total	-915	-940	-1,020	-864	-49
FTE	0.0	0.0	0.0	0.0	0.0

Detail of Adjustments to Recorded:

Year	Adj Group	Labor	NLbr	NSE	FTE	Adj Type	RefID
2012	Other	0	-915	0	0.0	1-Sided Adj	KMANUEL20161115092757597
Explanation: Southern California Edison utility Interconnection Fee - adjusted out of historical. This expense charged to Non-GRC FERC accounting starting in 2016.							
2012	Other	0	-10,064	10,064	0.0	1-Sided Adj	GSTMARIE20170209103647230
Explanation: Transfer LTSA costs for Desert Star from non-labor to NSE.							
2012 Total		0	-10,979	10,064	0.0		
2013	Other	0	-940	0	0.0	1-Sided Adj	KMANUEL20161115095538097
Explanation: Southern California Edison utility Interconnection Fee - adjusted out of historical. This expense charged to Non-GRC FERC accounting starting in 2016.							
2013	Other	0	-10,270	10,270	0.0	1-Sided Adj	GSTMARIE20170209103943797
Explanation: Transfer LTSA costs for Desert Star from non-labor to NSE.							
2013 Total		0	-11,211	10,270	0.0		
2014	Other	-3	0	0	0.0	1-Sided Adj	KMANUEL20161115095653007
Explanation: Severance payment - not needed for future years.							
2014	Other	0	-1,018	0	0.0	1-Sided Adj	KMANUEL20161115095756173
Explanation: Southern California Edison utility Interconnection Fee - adjusted out of historical. This expense charged to Non-GRC FERC accounting starting in 2016.							
2014	Other	0	-7,159	7,159	0.0	1-Sided Adj	GSTMARIE20170209104105030
Explanation: Transfer LTSA costs for Desert Star from non-labor to NSE.							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 2. Generation Plant Desert Star
 Workpaper: 1EG006.000 - Generation Plant Desert Star

<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>
2014 Total		-3	-8,177	7,159	0.0		
2015	Other	0	-864	0	0.0	1-Sided Adj	KMANUEL20161115103856807
Explanation: Southern California Edison utility Interconnection Fee - adjusted out of historical. This expense charged to Non-GRC FERC accounting starting in 2016.							
2015	Other	0	-8,597	8,597	0.0	1-Sided Adj	GSTMARIE20170209104231313
Explanation: Transfer LTSA costs for Desert Star from non-labor to NSE.							
2015 Total		0	-9,461	8,597	0.0		
2016	Other	0	-5,600	5,600	0.0	1-Sided Adj	GSTMARIE20170209104341347
Explanation: Transfer LTSA costs for Desert Star from non-labor to NSE.							
2016	Other	0	-39	0	0.0	1-Sided Adj	GSTMARIE20170224131138627
Explanation: Southern California Edison utility Interconnection Fee - adjusted out of historical. This expense charged to Non-GRC FERC accounting starting in 2016.							
2016	Other	0	-10	0	0.0	CCTR Transf To 2100-8959.000	GSTMARIE20170310111541757
Explanation: Transfer Long Term Disability Expenses to Workpaper Group 1HR002.							
2016 Total		0	-5,649	5,600	0.0		

Note: Totals may include rounding differences.

Beginning of Workpaper
1EG002.000 - Generation Plant Miramar

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 3. Generation Plant Miramar
 Workpaper: 1EG002.000 - Generation Plant Miramar

Activity Description:

Generation Plant Miramar encompasses the operation and maintenance of (2) peaking plants at the Miramar Energy Facility. Labor costs include Supervision, Maintenance, Operations, and Engineering personnel. Non-labor costs include items such as industrial gases, water, and maintenance parts and activities.

Forecast Explanations:

Labor - 5-YR Average

The 5-YR average method was selected because it most accurately reflects current staffing levels and it represents a reasonable foundation for projecting the future needs of the organization.

Non-Labor - 5-YR Average

The 5-YR average method was selected because it represents a reasonable foundation for projecting the future needs of the organization as it includes a variety of planned and unplanned maintenance events and provides the longest history of recorded spend.

NSE - 5-YR Average

N/A

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		369	354	407	377	276	356	356	356	
Non-Labor		2,149	3,080	1,430	2,321	1,139	2,024	2,024	2,024	
NSE		0	0	0	0	0	0	0	0	
Total		2,518	3,434	1,837	2,697	1,414	2,380	2,380	2,380	
FTE		3.4	3.3	3.7	3.5	2.5	3.3	3.3	3.3	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 3. Generation Plant Miramar
 Workpaper: 1EG002.000 - Generation Plant Miramar

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	5-YR Average	356	356	356	0	0	0	356	356	356
Non-Labor	5-YR Average	2,024	2,024	2,024	0	0	0	2,024	2,024	2,024
NSE	5-YR Average	0	0	0	0	0	0	0	0	0
Total		2,380	2,380	2,380	0	0	0	2,380	2,380	2,380
FTE	5-YR Average	3.3	3.3	3.3	0.0	0.0	0.0	3.3	3.3	3.3

<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>
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: A. Generation Plant
Category-Sub: 3. Generation Plant Miramar
Workpaper: 1EG002.000 - Generation Plant Miramar

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	295	286	335	319	237
Non-Labor	2,101	3,049	1,429	2,319	1,139
NSE	0	0	0	0	0
Total	2,396	3,334	1,765	2,637	1,375
FTE	2.9	2.8	3.1	3.0	2.1
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	295	286	335	319	237
Non-Labor	2,101	3,049	1,429	2,319	1,139
NSE	0	0	0	0	0
Total	2,396	3,334	1,765	2,637	1,375
FTE	2.9	2.8	3.1	3.0	2.1
Vacation & Sick (Nominal \$)					
Labor	43	45	54	49	39
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	43	45	54	49	39
FTE	0.5	0.5	0.6	0.5	0.4
Escalation to 2016\$					
Labor	31	23	18	9	0
Non-Labor	47	32	0	2	0
NSE	0	0	0	0	0
Total	79	55	19	11	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	369	354	407	377	276
Non-Labor	2,149	3,080	1,430	2,321	1,139
NSE	0	0	0	0	0
Total	2,518	3,434	1,837	2,697	1,414
FTE	3.4	3.3	3.7	3.5	2.5

* 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.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 3. Generation Plant Miramar
 Workpaper: 1EG002.000 - Generation Plant Miramar

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
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

<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>
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 3. Generation Plant Miramar
 Workpaper: 1EG002.000 - Generation Plant Miramar

RAMP Item # 1

Ref ID: GSTMARIE20170301175113713

RAMP Chapter: SDG&E-6

Program Name: MEF I and II blackstart generators maintenance and testing programs

Program Description: Redundant Blackstart Resources at Miramar Energy Facility have been installed to use one of the Palomar Energy Center (PEC) Combustion Turbines as a target unit during a shutdown condition.

Risk/Mitigation:

Risk: Fail to Blackstart

Mitigation: Maintenance, Certification, and testing of existing Blackstart Resources

Forecast CPUC Cost Estimates (\$000)

	<u>2017</u>	<u>2018</u>	<u>2019</u>
Low	10	10	10
High	11	11	11

Funding Source: CPUC-GRC

Forecast Method: Average

Work Type: Mandated

Work Type Citation: NERC Standard EOP-005-2 and Section 4.1 of SDG&E and CAISO agreement to fulfill NERC Standard EOP-00

Historical Embedded Cost Estimates (\$000)

Embedded Costs: 10

Explanation: Estimated 2016 RAMP Embedded Costs based on Risk Mitigation Plan RAMP Long-Form sheets for Risk: Fail to Blackstart; Line B1; Projects/Programs: MEF I and II blackstart generators maintenance and testing programs; Columns - Forecasts, O&M \$000, 2017 - 2019

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 3. Generation Plant Miramar
 Workpaper: 1EG002.000 - Generation Plant Miramar

RAMP Item # 2

Ref ID: GSTMARIE20170303110345097

RAMP Chapter: SDG&E-6

Program Name: Certification of MEF I and II as blackstart units

Program Description: MEF I and II are currently certified as Blackstart Resources. Per current CAISO Procedure 5360, Blackstart tests shall be completed at least once every three years (EOP-005-2 R9.1).

Risk/Mitigation:

Risk: Fail to Blackstart

Mitigation: Maintenance, Certification, and testing of existing Blackstart Resources

Forecast CPUC Cost Estimates (\$000)

	<u>2017</u>	<u>2018</u>	<u>2019</u>
Low	10	10	10
High	11	11	11

Funding Source: CPUC-GRC

Forecast Method: Average

Work Type: Mandated

Work Type Citation: NERC Standard EOP-005-2 and Section 4.1 of SDG&E and CAISO agreement to fulfill NERC Standard EOP-00

Historical Embedded Cost Estimates (\$000)

Embedded Costs: 10

Explanation: Estimated 2016 RAMP Embedded Costs based on Risk Mitigation Plan RAMP Long-Form sheets for Risk: Fail to Blackstart; Line B1; Projects/Programs: Certification of MEF I and II as blackstart units; Columns - Forecasts, O&M \$000, 2017 - 2019

Beginning of Workpaper
1EG007.000 - Generation Plant Cuyamaca Peak

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 4. Generation Plant Cuyamaca Peak
 Workpaper: 1EG007.000 - Generation Plant Cuyamaca Peak

Activity Description:

Generation Plant Cuyamaca Peak encompasses the operation and maintenance of the Peaking Plant at the Cuyamaca Peak Energy Plant. Labor costs include Supervision, Maintenance, and Operational expenses. Non-labor costs include items such as industrial gases, demineralized water, and maintenance parts and activities.

Forecast Explanations:

Labor - 5-YR Average

The 5-YR average method was selected because it most accurately reflects current staffing levels and it represents a reasonable foundation for projecting the future needs of the organization.

Non-Labor - 5-YR Average

The 5-YR average method was selected because it represents a reasonable foundation for projecting the future needs of the organization as it includes a variety of planned and unplanned maintenance events and provides the longest history of recorded spend.

NSE - 5-YR Average

N/A

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		321	178	184	107	212	200	216	216	
Non-Labor		774	901	1,070	387	1,158	858	862	862	
NSE		0	0	0	0	0	0	0	0	
Total		1,095	1,079	1,254	494	1,369	1,058	1,078	1,078	
FTE		2.7	1.5	1.5	0.9	2.0	1.7	1.9	1.9	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 4. Generation Plant Cuyamaca Peak
 Workpaper: 1EG007.000 - Generation Plant Cuyamaca Peak

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	5-YR Average	200	200	200	0	16	16	200	216	216
Non-Labor	5-YR Average	858	858	858	0	4	4	858	862	862
NSE	5-YR Average	0	0	0	0	0	0	0	0	0
Total		1,058	1,058	1,058	0	20	20	1,058	1,078	1,078
FTE	5-YR Average	1.7	1.7	1.7	0.0	0.2	0.2	1.7	1.9	1.9

Forecast Adjustment Details:

Year	Adj Group	Labor	NLbr	NSE	Total	FTE	Adj Type	RefID
2017 Total		0	0	0	0	0.0		
2018	RAMP Incremental	16	4	0	20	0.2	1-Sided Adj	GSTMARIE20170303113012183
2018 Total		16	4	0	20	0.2		
2019	RAMP Incremental	16	4	0	20	0.2	1-Sided Adj	GSTMARIE20170303114222757
2019 Total		16	4	0	20	0.2		

Explanation: RAMP - Fail to Blackstart (RAMP Chapter 6) Maintenance, Certification and Testing of South Grid blackstart generator for Cuyamaca Peak Energy Plant.

Explanation: RAMP - Fail to Blackstart (RAMP Chapter 6) Maintenance, Certification and Testing of South Grid blackstart generator for Cuyamaca Peak Energy Plant.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 4. Generation Plant Cuyamaca Peak
 Workpaper: 1EG007.000 - Generation Plant Cuyamaca Peak

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	257	144	152	90	181
Non-Labor	757	892	1,070	387	1,158
NSE	0	0	0	0	0
Total	1,014	1,036	1,222	477	1,339
FTE	2.3	1.3	1.3	0.8	1.7
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	257	144	152	90	181
Non-Labor	757	892	1,070	387	1,158
NSE	0	0	0	0	0
Total	1,014	1,036	1,222	477	1,339
FTE	2.3	1.3	1.3	0.8	1.7
Vacation & Sick (Nominal \$)					
Labor	37	23	24	14	30
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	37	23	24	14	30
FTE	0.4	0.2	0.2	0.1	0.3
Escalation to 2016\$					
Labor	27	12	8	2	0
Non-Labor	17	9	0	0	0
NSE	0	0	0	0	0
Total	44	21	9	3	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	321	178	184	107	212
Non-Labor	774	901	1,070	387	1,158
NSE	0	0	0	0	0
Total	1,095	1,079	1,254	494	1,369
FTE	2.7	1.5	1.5	0.9	2.0

* 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.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 4. Generation Plant Cuyamaca Peak
 Workpaper: 1EG007.000 - Generation Plant Cuyamaca Peak

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
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

<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>
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 4. Generation Plant Cuyamaca Peak
 Workpaper: 1EG007.000 - Generation Plant Cuyamaca Peak

RAMP Item # 1

Ref ID: GSTMARIE20170511113819263

RAMP Chapter: SDG&E-6

Program Name: South Grid Black-Start Project-Reevaluation to use blackstart generator maint. & testing.

Program Description: South Grid Black-Start Project is for Cuyamaca Peak Energy Plant (CPEP) to serve as a black-start unit for the southern part of SDG&E electrical grid. Currently, there is work in-progress for the design, procurement and construction to implement the chosen alternative. This alternative will provide a Blackstart Resource to use the Pio Pico units as target units. The project will install a small size engine generator at El Cajon substation to provide Blackstart capability to the Cuyamaca Gen-1 unit.

Risk/Mitigation:

Risk: Fail to Blackstart

Mitigation: Add blackstart capabilities to the southern part of the SDG&E electric system.

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: Zero-Based

Work Type: Non-Mandated

Work Type Citation: NA

Historical Embedded Cost Estimates (\$000)

Embedded Costs: 0

Explanation: No embedded Year 2016 costs as South Grid Black-Start Project will be completed in 2018 and maintenance and testing and certification of generator will begin in 2018.

Beginning of Workpaper
1EG005.000 - Generation Plant Otay Mesa

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 5. Generation Plant Otay Mesa
 Workpaper: 1EG005.000 - Generation Plant Otay Mesa

Activity Description:

Generation Plant Otay Mesa encompasses the operation and maintenance of the Combined Cycle Generating Plant at Otay Mesa Energy Center. Costs include contracted Supervision, Maintenance, Operations and Engineering personnel. Non-labor costs include items such as industrial gases, chemicals, water, and maintenance parts and activities.

Forecast Explanations:

Labor - Zero-Based

N/A

Non-Labor - Zero-Based

The Zero-Based method was selected because it is the most representative of future operational need of the organization. The Base Year captures costs at levels that will be typical in future years.

NSE - Zero-Based

N/A

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		0	0	0	0	0	0	0	22,796	
NSE		0	0	0	0	0	0	0	0	
Total		0	0	0	0	0	0	0	22,796	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: A. Generation Plant
Category-Sub: 5. Generation Plant Otay Mesa
Workpaper: 1EG005.000 - Generation Plant Otay Mesa

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	Zero-Based	0	0	0	0	0	0	0	0	0
Non-Labor	Zero-Based	0	0	0	0	0	22,796	0	0	22,796
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	22,796	0	0	22,796
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Forecast Adjustment Details:

Year	Adj Group	Labor	NLbr	NSE	Total	FTE	Adj Type	RefID	
2017 Total		0	0	0	0	0.0			
2018 Total		0	0	0	0	0.0			
2019	Other	0	19,718	0	19,718	0.0	1-Sided Adj	GSTMARIE20170509133338403	
Explanation:		Planned addition of Otay Mesa Energy Center (OMEC) in 2019.							
2019	Other	0	1,731	0	1,731	0.0	1-Sided Adj	GSTMARIE20170628162311743	
Explanation:		Ground lease expense due to planned addition of OMEC.							
2019	Other	0	1,347	0	1,347	0.0	1-Sided Adj	GSTMARIE20170628165930380	
Explanation:		Property insurance expense due to planned addition of OMEC.							
2019 Total		0	22,796	0	22,796	0.0			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 5. Generation Plant Otay Mesa
 Workpaper: 1EG005.000 - Generation Plant Otay Mesa

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	183	338
Non-Labor	0	0	0	78	235
NSE	0	0	0	0	0
Total	0	0	0	261	573
FTE	0.0	0.0	0.0	0.7	1.4
Adjustments (Nominal \$) **					
Labor	0	0	0	-183	-338
Non-Labor	0	0	0	-78	-235
NSE	0	0	0	0	0
Total	0	0	0	-261	-573
FTE	0.0	0.0	0.0	-0.7	-1.4
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (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
Escalation to 2016\$					
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 (Constant 2016\$)					
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

* 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.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Generation Plant
 Category-Sub: 5. Generation Plant Otay Mesa
 Workpaper: 1EG005.000 - Generation Plant Otay Mesa

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	0	0	-183	-338
Non-Labor	0	0	0	-78	-235
NSE	0	0	0	0	0
Total	0	0	0	-261	-573
FTE	0.0	0.0	0.0	-0.7	-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	Other	-183	-78	0	-0.7	CCTR Transf To 2100-3626.000	GSTMARIE20170208092744593
2015 Total		-183	-78	0	-0.7		
2016	Other	-338	-235	0	-1.4	CCTR Transf To 2100-3626.000	GSTMARIE20170208093110167
2016 Total		-338	-235	0	-1.4		

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: B. Administration
Workpaper: VARIOUS

Summary for Category: B. Administration

	In 2016\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
Labor	400	428	456	456
Non-Labor	12	14	14	14
NSE	0	0	0	0
Total	<u>412</u>	<u>442</u>	<u>470</u>	<u>470</u>
FTE	2.4	2.6	2.8	2.8

Workpapers belonging to this Category:

1EG001.000 Generation - Plant - Admin

Labor	340	340	340	340
Non-Labor	9	9	9	9
NSE	0	0	0	0
Total	<u>349</u>	<u>349</u>	<u>349</u>	<u>349</u>
FTE	2.1	2.1	2.1	2.1

1EG004.000 Electric Project Development

Labor	60	88	116	116
Non-Labor	3	5	5	5
NSE	0	0	0	0
Total	<u>63</u>	<u>93</u>	<u>121</u>	<u>121</u>
FTE	0.3	0.5	0.7	0.7

Note: Totals may include rounding differences.

Beginning of Workpaper
1EG001.000 - Generation - Plant - Admin

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: B. Administration
 Category-Sub: 1. Generation Plant Administration
 Workpaper: 1EG001.000 - Generation - Plant - Admin

Activity Description:

Generation Plant Administration includes labor for (1) Director of Generation, labor for (1) Principal Business Analyst, and associated administrative expenses. This activity provides managerial oversight, plant cost analysis and budgeting for all generating facilities.

Forecast Explanations:

Labor - Base YR Rec

The Base Year method was selected because it most accurately reflects current staffing levels and provides a reasonable foundation for projecting the future needs of the organization. The Base Year captures costs at levels that will be typical in future years.

Non-Labor - Base YR Rec

The Base Year method was selected because it is the most representative of future operational need of the organization. The Base Year captures costs at levels that will be typical in future years.

NSE - Base YR Rec

N/A

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		332	182	113	185	340	340	340	340	
Non-Labor		8	4	1	10	9	9	9	9	
NSE		0	0	0	0	0	0	0	0	
Total		340	186	115	195	348	349	349	349	
FTE		2.1	1.3	1.1	1.4	2.1	2.1	2.1	2.1	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: B. Administration
 Category-Sub: 1. Generation Plant Administration
 Workpaper: 1EG001.000 - Generation - Plant - Admin

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	340	340	340	0	0	0	340	340	340
Non-Labor	Base YR Rec	9	9	9	0	0	0	9	9	9
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		348	348	348	0	0	0	348	348	348
FTE	Base YR Rec	2.1	2.1	2.1	0.0	0.0	0.0	2.1	2.1	2.1

<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>
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: B. Administration
Category-Sub: 1. Generation Plant Administration
Workpaper: 1EG001.000 - Generation - Plant - Admin

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	265	149	93	157	291
Non-Labor	355	246	1	10	9
NSE	0	0	0	0	0
Total	620	395	95	166	300
FTE	1.8	1.2	0.9	1.2	1.8
Adjustments (Nominal \$) **					
Labor	0	-2	0	0	0
Non-Labor	-347	-242	0	0	0
NSE	0	0	0	0	0
Total	-347	-244	0	0	0
FTE	0.0	-0.1	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	265	147	93	157	291
Non-Labor	8	4	1	10	9
NSE	0	0	0	0	0
Total	273	151	95	166	300
FTE	1.8	1.1	0.9	1.2	1.8
Vacation & Sick (Nominal \$)					
Labor	38	23	15	24	48
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	38	23	15	24	48
FTE	0.3	0.2	0.2	0.2	0.3
Escalation to 2016\$					
Labor	28	12	5	4	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	28	12	5	4	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	332	182	113	185	340
Non-Labor	8	4	1	10	9
NSE	0	0	0	0	0
Total	340	186	115	195	348
FTE	2.1	1.3	1.1	1.4	2.1

* 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.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: B. Administration
 Category-Sub: 1. Generation Plant Administration
 Workpaper: 1EG001.000 - Generation - Plant - Admin

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	-2	0	0	0
Non-Labor	-347	-242	0	0	0
NSE	0	0	0	0	0
Total	-347	-244	0	0	0
FTE	0.0	-0.1	0.0	0.0	0.0

Detail of Adjustments to Recorded:

Year	Adj Group	Labor	NLbr	NSE	FTE	Adj Type	RefID
2012	Other	0	-347	0	0.0	1-Sided Adj	KMANUEL20161115092526827
Explanation:		Transfer of non-labor expenses to Workpaper 1EG003 (Generation Plant Palomar) not associated with Workpaper 1EG001. These are Workpaper 1EG003 related expenses.					
2012 Total		0	-347	0	0.0		
2013	Other	-2	0	0	-0.1	1-Sided Adj	KMANUEL20161115093248507
Explanation:		Transfer of labor expenses to Workpaper 1EG003 (Generation Plant Palomar) not associated with Workpaper 1EG001. These are Workpaper 1EG003 related expenses.					
2013	Other	0	-242	0	0.0	1-Sided Adj	KMANUEL20161115093439500
Explanation:		Transfer of non-labor expenses to Workpaper 1EG003 (Generation Plant Palomar) not associated with Workpaper 1EG001. These are Workpaper 1EG003 related expenses.					
2013 Total		-2	-242	0	-0.1		
2014 Total		0	0	0	0.0		
2015 Total		0	0	0	0.0		
2016 Total		0	0	0	0.0		

Note: Totals may include rounding differences.

Beginning of Workpaper
1EG004.000 - Electric Project Development

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: B. Administration
 Category-Sub: 2. Electric Project Development
 Workpaper: 1EG004.000 - Electric Project Development

Activity Description:

Electric Project Development includes labor for (1) Manager - Electric Project Development and associated administrative expenses. This activity provides project management and business planning for existing and planned electric projects.

Forecast Explanations:

Labor - Base YR Rec

The Base Year method was selected because it most accurately reflects current staffing levels and provides a reasonable foundation for projecting the future needs of the organization. The Base Year captures costs at levels that will be typical in future years.

Non-Labor - Base YR Rec

The Base Year method was selected because it is the most representative of future operational need of the organization. The Base Year captures costs at levels that will be typical in future years.

NSE - Base YR Rec

N/A

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		8	9	3	42	60	88	116	116	
Non-Labor		8	1	0	29	3	5	5	5	
NSE		0	0	0	0	0	0	0	0	
Total		16	9	3	71	63	93	121	121	
FTE		0.0	0.1	0.0	0.2	0.4	0.5	0.7	0.7	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: B. Administration
 Category-Sub: 2. Electric Project Development
 Workpaper: 1EG004.000 - Electric Project Development

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	60	60	60	28	56	56	88	116	116
Non-Labor	Base YR Rec	3	3	3	2	2	2	5	5	5
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		63	63	63	30	58	58	93	121	121
FTE	Base YR Rec	0.3	0.3	0.3	0.2	0.4	0.4	0.5	0.7	0.7

Forecast Adjustment Details:

Year	Adj Group	Labor	NLbr	NSE	Total	FTE	Adj Type	RefID	
2017	Other	28	2	0	30	0.2	1-Sided Adj	GSTMARIE20170208075517550	
Explanation:		Increase needed due to planned shift from capital to operational activities.							
2017 Total		28	2	0	30	0.2			
2018	Other	56	2	0	58	0.4	1-Sided Adj	GSTMARIE20170208075608280	
Explanation:		Increase needed due to planned shift from capital to operational activities.							
2018 Total		56	2	0	58	0.4			
2019	Other	56	2	0	58	0.4	1-Sided Adj	GSTMARIE20170208075648233	
Explanation:		Increase needed due to planned shift from capital to operational activities.							
2019 Total		56	2	0	58	0.4			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: B. Administration
Category-Sub: 2. Electric Project Development
Workpaper: 1EG004.000 - Electric Project Development

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	6	7	2	36	52
Non-Labor	8	1	0	29	3
NSE	0	0	0	0	0
Total	14	8	2	64	55
FTE	0.0	0.1	0.0	0.2	0.3
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	6	7	2	36	52
Non-Labor	8	1	0	29	3
NSE	0	0	0	0	0
Total	14	8	2	64	55
FTE	0.0	0.1	0.0	0.2	0.3
Vacation & Sick (Nominal \$)					
Labor	1	1	0	5	9
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	1	1	0	5	9
FTE	0.0	0.0	0.0	0.0	0.1
Escalation to 2016\$					
Labor	1	1	0	1	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	1	1	0	1	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	8	9	3	42	60
Non-Labor	8	1	0	29	3
NSE	0	0	0	0	0
Total	16	9	3	71	63
FTE	0.0	0.1	0.0	0.2	0.4

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: B. Administration
 Category-Sub: 2. Electric Project Development
 Workpaper: 1EG004.000 - Electric Project Development

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
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

<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>
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: C. SONGS
Workpaper: 1EG010.000

Summary for Category: C. SONGS

	In 2016\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
Labor	0	0	0	0
Non-Labor	0	0	0	0
NSE	1,239	1,407	1,441	1,476
Total	1,239	1,407	1,441	1,476
FTE	0.0	0.0	0.0	0.0

Workpapers belonging to this Category:

1EG010.000 EG -SONGS Wkp_Grp_2

Labor	0	0	0	0
Non-Labor	0	0	0	0
NSE	1,239	1,407	1,441	1,476
Total	1,239	1,407	1,441	1,476
FTE	0.0	0.0	0.0	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper
1EG010.000 - EG -SONGS Wkp_Grp_2

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: C. SONGS
 Category-Sub: 1. Marine Mitigation & Workers Comp.
 Workpaper: 1EG010.000 - EG -SONGS Wkp_Grp_2

Activity Description:

SDG&E incurs Marine Mitigation and Worker's Compensation (Worker's Comp) for SONGS. SDG&E is obligated to these costs independent of the operating status of the plant.

SDG&E incurs Marine Mitigation costs for ongoing projects designed to mitigate the turbidity effects caused by the movement of ocean water used to cool SONGS. These costs remain in SCE's 2018 GRC. SCE provides its Marine Mitigation forecast for SONGS in its 2018 GRC at SCE-07, Vol. 02 page 19. SCE bills SDG&E for its 20% share of these costs as O&M expenditures plus overheads.

Worker's Comp related to SONGS is billed by SCE to SDG&E under the Master Insurance Program (MIP; 1972-1999), and a self-insured program maintained by SCE for Worker's Compensation expense incurred after 1999. As these costs are not Decommissioning related, they are not recoverable from the Decommissioning Trusts. These costs remain in SCE's 2018 GRC. See SCE-08, Vol. 04, pages 27-33. SCE bills SDG&E for its 20% share of these costs as O&M expenditures, plus overheads.

Forecast Explanations:

Labor - Zero-Based

Non-Standard Escalation (NSE) as SCE incurs and bills these costs to SDG&E. Labor overhead of 50.78% is applied by SCE to direct labor charges to recover Administrative and General, Pension & Benefits and Payroll Tax which SDG&E pays on its 20% ownership direct cost for SONGS

Non-Labor - Zero-Based

Non-Standard Escalation (NSE) as SCE incurs and bills these costs to SDG&E. Non-Labor overhead of 1.0% is applied by SCE to direct non-labor charges to recover Administrative and General expenses which SDG&E pays on its 20% ownership direct cost for SONGS

NSE - Zero-Based

Non-Standard Escalation (NSE) as SCE incurs and bills SDG&E for its 20% ownership cost for SONGS. These amounts will be escalated using the SCE escalation rates granted in SCE's 2018 GRC. The escalation used here is from SCE-09, Vol. 1, pages 89-90, Tables VII-28 & VII-29.

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		0	0	0	0	0	0	0	0	
NSE		1,337	1,773	1,486	1,342	1,239	1,407	1,441	1,476	
Total		1,337	1,773	1,486	1,342	1,239	1,407	1,441	1,476	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: C. SONGS
 Category-Sub: 1. Marine Mitigation & Workers Comp.
 Workpaper: 1EG010.000 - EG -SONGS Wkp_Grp_2

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	Zero-Based	0	0	0	0	0	0	0	0	0
Non-Labor	Zero-Based	0	0	0	0	0	0	0	0	0
NSE	Zero-Based	0	0	0	1,407	1,441	1,476	1,407	1,441	1,476
Total		0	0	0	1,407	1,441	1,476	1,407	1,441	1,476
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Forecast Adjustment Details:

Year	Adj Group	Labor	NLbr	NSE	Total	FTE	Adj Type	RefID	
2017	Other	0	0	967	967	0.0	1-Sided Adj	TCURTIS20161122124104517	
Explanation:		Forecast is based on SCE s 2018 GRC Marine Mitigation forecast and represent SDG&E's 20% share plus any applicable overheads. The figures have been escalated using SCE's forecast of escalation. See SCE-09, Vol 1, pages 80, Table VII-29.							
2017	Other	0	0	440	440	0.0	1-Sided Adj	TCURTIS20161122124139760	
Explanation:		Forecast is based on SCE s 2018 GRC Workers Comp forecast and represent SDG&E's 20% share plus any applicable overheads. The figures have been escalated using SCE's forecast of escalation. See SCE-09, Vol 1, pages 80, Table VII-29.							
2017 Total		0	0	1,407	1,407	0.0			
2018	Other	0	0	991	991	0.0	1-Sided Adj	TCURTIS20161122124238400	
Explanation:		See 2017 explanation.							
2018	Other	0	0	450	450	0.0	1-Sided Adj	TCURTIS20161122124306150	
Explanation:		See 2017 explanation.							
2018 Total		0	0	1,441	1,441	0.0			
2019	Other	0	0	1,015	1,015	0.0	1-Sided Adj	TCURTIS20161122124424243	
Explanation:		See 2017 explanation.							
2019	Other	0	0	461	461	0.0	1-Sided Adj	TCURTIS20161122124456820	
Explanation:		See 2017 explanation.							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: C. SONGS
Category-Sub: 1. Marine Mitigation & Workers Comp.
Workpaper: 1EG010.000 - EG -SONGS Wkp_Grp_2

<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 Total		0	0	1,476	1,476	0.0		

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: C. SONGS
Category-Sub: 1. Marine Mitigation & Workers Comp.
Workpaper: 1EG010.000 - EG -SONGS Wkp_Grp_2

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	318	334	358	244	-3
Non-Labor	142,885	90,776	37,604	785	1,570
NSE	0	0	0	0	0
Total	143,203	91,110	37,962	1,029	1,567
FTE	2.6	2.6	2.6	1.6	0.0
Adjustments (Nominal \$) **					
Labor	-318	-334	-358	-244	3
Non-Labor	-142,885	-90,776	-37,604	-785	-1,570
NSE	1,307	1,755	1,486	1,340	1,239
Total	-141,895	-89,355	-36,476	311	-328
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	1,307	1,755	1,486	1,340	1,239
Total	1,307	1,755	1,486	1,340	1,239
FTE	2.6	2.6	2.6	1.6	0.0
Vacation & Sick (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	0.4	0.5	0.5	0.3	0.0
Escalation to 2016\$					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	29	18	0	1	0
Total	29	18	0	1	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	1,337	1,773	1,486	1,342	1,239
Total	1,337	1,773	1,486	1,342	1,239
FTE	3.0	3.1	3.1	1.9	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.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: C. SONGS
Category-Sub: 1. Marine Mitigation & Workers Comp.
Workpaper: 1EG010.000 - EG -SONGS Wkp_Grp_2

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	-318	-334	-358	-244	3
Non-Labor	-142,885	-90,776	-37,604	-785	-1,570
NSE	1,307	1,755	1,486	1,340	1,239
Total	-141,895	-89,355	-36,476	311	-328
FTE	0.0	0.0	0.0	0.0	0.0

Detail of Adjustments to Recorded:

Year	Adj Group	Labor	NLbr	NSE	FTE	Adj Type	RefID
2012	Other	-318	142,885	0	0.0	1-Sided Adj	TCURTIS20161012152142280
Explanation:		Most O&M and all capital expense are no longer attributable to on-going SONGS costs. The recorded historical cost has been adjusted to remove these costs since these costs are not relevant to forecasting SONGS O&M costs going forward.					
2012	Other	0	0	218	0.0	1-Sided Adj	TCURTIS20161011151008480
Explanation:		Recorded workers compensation costs billed by SCE in 2012. These costs were embedded in the historical costs which were removed and are being re-entered in the historical recorded by this adjustment.					
2012	Other	0	0	1,090	0.0	1-Sided Adj	TCURTIS20161011154137203
Explanation:		Recorded Marine Mitigation costs billed by SCE in 2012. These costs were embedded in the historical costs which were removed and are being re-entered in the historical recorded by this adjustment.					
2012 Total		-318	142,885	1,307	0.0		
2013	Other	-334	-90,776	0	0.0	1-Sided Adj	TCURTIS20161010102531483
Explanation:		Most O&M and all capital expense are no longer attributable to on-going SONGS costs. The recorded historical cost has been adjusted to remove these costs since these costs are not relevant to forecasting SONGS O&M costs going forward.					
2013	Other	0	0	345	0.0	1-Sided Adj	TCURTIS20161010140240183
Explanation:		Recorded workers compensation costs billed by SCE in 2013. These costs were embedded in the historical costs which were removed and are being re-entered in the historical recorded by this adjustment.					
2013	Other	0	0	1,410	0.0	1-Sided Adj	TCURTIS20161011152413047
Explanation:		Recorded Marine Mitigation costs billed by SCE in 2013. These costs were embedded in the historical costs which were removed and are being re-entered in the historical recorded by this adjustment.					

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: C. SONGS
 Category-Sub: 1. Marine Mitigation & Workers Comp.
 Workpaper: 1EG010.000 - EG -SONGS Wkp_Grp_2

<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>
2013 Total		-334	-90,776	1,755	0.0		
2014	Other	-358	-37,604	0	0.0	1-Sided Adj	TCURTIS20161010103208207
Explanation: Most O&M and all capital expense are no longer attributable to on-going SONGS costs. The recorded historical cost has been adjusted to remove these costs since these costs are not relevant to forecasting SONGS O&M costs going forward.							
2014	Other	0	0	468	0.0	1-Sided Adj	TCURTIS20161011160131920
Explanation: Recorded workers compensation costs billed by SCE in 2014. These costs were embedded in the historical costs which were removed and are being re-entered in the historical recorded by this adjustment.							
2014	Other	0	0	1,018	0.0	1-Sided Adj	TCURTIS20161011160338037
Explanation: Recorded Marine Mitigation costs billed by SCE in 2014. These costs were embedded in the historical costs which were removed and are being re-entered in the historical recorded by this adjustment.							
2014 Total		-358	-37,604	1,486	0.0		
2015	Other	-244	-785	0	0.0	1-Sided Adj	TCURTIS20161010112054787
Explanation: Most O&M and all capital expense are no longer attributable to on-going SONGS costs. The recorded historical cost has been adjusted to remove these costs since these costs are not relevant to forecasting SONGS O&M costs going forward.							
2015	Other	0	0	443	0.0	1-Sided Adj	TCURTIS20161011160759177
Explanation: Recorded workers compensation costs billed by SCE in 2015. These costs were embedded in the historical costs which were removed and are being re-entered in the historical recorded by this adjustment.							
2015	Other	0	0	898	0.0	1-Sided Adj	TCURTIS20161011160848883
Explanation: Recorded Marine Mitigation costs billed by SCE in 2015. These costs were embedded in the historical costs which were removed and are being re-entered in the historical recorded by this adjustment.							
2015 Total		-244	-785	1,340	0.0		
2016	Other	-244	-785	0	0.0	1-Sided Adj	TCURTIS20161026123552913
Explanation: Most O&M and all capital expense are no longer attributable to on-going SONGS costs. The recorded historical cost has been adjusted to remove these costs since these costs are not relevant to forecasting SONGS O&M costs going forward.							
2016	Other	0	0	443	0.0	1-Sided Adj	TCURTIS20161026141044770

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: C. SONGS
 Category-Sub: 1. Marine Mitigation & Workers Comp.
 Workpaper: 1EG010.000 - EG -SONGS Wkp_Grp_2

<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>
Explanation: Recorded workers compensation costs billed by SCE in 2015. 2015 numbers were a estimate until 2016 actuals were finalized. These costs were embedded in the historical costs which were removed and are being re-entered in the historical recorded by this adjustment.							
2016	Other	0	0	898	0.0	1-Sided Adj	TCURTIS20161026142218107
Explanation: Recorded Marine Mitigation costs billed by SCE in 2015. 2015 actuals were a estimate until 2016 actuals were finalized. These costs were embedded in the historical costs which were removed and are being re-entered in the historical recorded by this adjustment.							
2016	Other	248	0	0	0.0	1-Sided Adj	PPSTADLE20170227145248140
Explanation: To reverse out adjustment entered before year end 2016 of \$244 that accrual was based off of 2015 actuals. And to reverse out actuals for 2016 of \$3. No labor charges for SONGS should go through GRC as they're recovered through other regulatory processes. Total Labor adjustment of \$248.							
2016	Other	0	-785	0	0.0	1-Sided Adj	PPSTADLE20170227145724080
Explanation: To reverse out adjustment entered before year end 2016 of (\$785) that was based on 2015 actuals. And to reverse 2016 actuals of \$1,570. These historical costs are being removed as they're not relevant to forecasting SONGS O&M going forward.							
2016	Other	0	0	-443	0.0	1-Sided Adj	PPSTADLE20170227153244213
Explanation: To reverse out accrual for Workers Comp. The accrual of \$443 was based on 2015 actuals.							
2016	Other	0	0	-898	0.0	1-Sided Adj	PPSTADLE20170227153334643
Explanation: To reverse out accrual for Marine Mitigation. Accrual was based on 2015 actuals.							
2016	Other	0	0	293	0.0	1-Sided Adj	PPSTADLE20170227153443317
Explanation: Actual workers comp charges for 2016.							
2016	Other	0	0	946	0.0	1-Sided Adj	PPSTADLE20170227154650063
Explanation: To enter actual Marine Mitigation expenses for 2016.							
2016 Total		3	-1,570	1,239	0.0		

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
 2019 GRC - APP
 Shared Services Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman

Summary of Shared Services Workpapers:

Description	In 2016 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
A. Resource Planning	747	1,095	1,095	1,095
Total	747	1,095	1,095	1,095

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman
Category: A. Resource Planning
Cost Center: 2100-3433.000

Summary for Category: A. Resource Planning

	In 2016\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2016	2017	2018	2019
Labor	505	833	833	833
Non-Labor	241	261	261	261
NSE	0	0	0	0
Total	746	1,094	1,094	1,094
FTE	3.1	5.0	5.0	5.0

Cost Centers belonging to this Category:

2100-3433.000 RESOURCE PLANNING DIRECTOR

Labor	505	833	833	833
Non-Labor	241	261	261	261
NSE	0	0	0	0
Total	746	1,094	1,094	1,094
FTE	3.1	5.0	5.0	5.0

Note: Totals may include rounding differences.

Beginning of Workpaper
2100-3433.000 - RESOURCE PLANNING DIRECTOR

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Resource Planning
 Category-Sub: 1. Resource Planning
 Cost Center: 2100-3433.000 - RESOURCE PLANNING DIRECTOR

Activity Description:

Resource Planning Director organization is responsible for planning the long-term electric generation needs of SDG&E's bundled customers, as well as evaluation of future policy options. It is also responsible for assessing how customer needs will be impacted by both changes in the market and generation additions.

Forecast Explanations:

Labor - 5-YR Average

The 5-YR average method was selected because it most accurately reflects current staffing levels and it represents a reasonable foundation for projecting the future needs of the organization.

Non-Labor - 5-YR Average

The 5-YR average method was selected because it represents a reasonable foundation for projecting the future needs of the organization.

NSE - 5-YR Average

N/A

Summary of Results:

		In 2016\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2012	2013	2014	2015	2016	2017	2018	2019	
Labor		538	552	607	554	505	833	833	833	
Non-Labor		201	186	189	193	241	261	261	261	
NSE		0	0	0	0	0	0	0	0	
Total		740	738	796	747	747	1,094	1,094	1,094	
FTE		4.2	4.3	5.0	4.0	3.1	5.0	5.0	5.0	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Resource Planning
 Category-Sub: 1. Resource Planning
 Cost Center: 2100-3433.000 - RESOURCE PLANNING DIRECTOR

Cost Center Allocations (Incurred Costs):

	2016 Adjusted-Recorded					2017 Adjusted-Forecast				
	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.	505	241	0	746	3.1	833	261	0	1,094	5.0
Total Incurred	505	241	0	746	3.1	833	261	0	1,094	5.0
% Allocation										
Retained	91.79%	91.79%				91.74%	91.74%			
SEU	8.21%	8.21%				8.26%	8.26%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

	2018 Adjusted-Forecast					2019 Adjusted-Forecast				
	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.	833	261	0	1,094	5.0	833	261	0	1,094	5.0
Total Incurred	833	261	0	1,094	5.0	833	261	0	1,094	5.0
% Allocation										
Retained	91.74%	91.74%				91.74%	91.74%			
SEU	8.26%	8.26%				8.26%	8.26%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

Percentage allocation is based on history.

Cost Center Allocation Percentage for 2017

Percentage allocation is based on history.

Cost Center Allocation Percentage for 2018

Percentage allocation is based on history.

Cost Center Allocation Percentage for 2019

Percentage allocation is based on history.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Resource Planning
 Category-Sub: 1. Resource Planning
 Cost Center: 2100-3433.000 - RESOURCE PLANNING DIRECTOR

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	5-YR Average	551	551	551	282	282	282	833	833	833
Non-Labor	5-YR Average	202	202	202	59	59	59	261	261	261
NSE	5-YR Average	0	0	0	0	0	0	0	0	0
Total		754	754	754	341	341	341	1,095	1,095	1,095
FTE	5-YR Average	4.1	4.1	4.1	0.9	0.9	0.9	5.0	5.0	5.0

Forecast Adjustment Details:

Year	Adj Group	Labor	NLbr	NSE	Total	FTE	Adj Type	RefID	
2017	Other	282	0	0	282	0.9	1-Sided Adj	KMANUEL20161129133437257	
Explanation:		Increase in staffing (one Manager position) and change in position composition of workforce.							
2017	Other	0	59	0	59	0.0	1-Sided Adj	GSTMARIE20170227153908257	
Explanation:		Incremental costs for integrated resource plan software licensing and support costs required for SB350.							
2017 Total		282	59	0	341	0.9			
2018	Other	282	0	0	282	0.9	1-Sided Adj	KMANUEL20161129133656443	
Explanation:		Increase in staffing (one Manager position) and change in position composition of workforce.							
2018	Other	0	59	0	59	0.0	1-Sided Adj	GSTMARIE20170227153932960	
Explanation:		Incremental costs for integrated resource software licensing and support costs required for SB350.							
2018 Total		282	59	0	341	0.9			
2019	Other	282	0	0	282	0.9	1-Sided Adj	KMANUEL20161129134132070	
Explanation:		Increase in staffing (one Manager position) and change in position composition of workforce.							
2019	Other	0	59	0	59	0.0	1-Sided Adj	GSTMARIE20170227153955587	
Explanation:		Incremental costs for integrated resource software licensing and support costs required for SB350.							
2019 Total		282	59	0	341	0.9			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Resource Planning
 Category-Sub: 1. Resource Planning
 Cost Center: 2100-3433.000 - RESOURCE PLANNING DIRECTOR

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	439	453	507	472	434
Non-Labor	188	177	183	357	241
NSE	0	0	0	0	0
Total	627	630	689	829	675
FTE	3.6	3.7	4.2	3.4	2.6
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	-166	0
NSE	0	0	0	0	0
Total	0	0	0	-166	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	439	453	507	472	434
Non-Labor	188	177	183	190	241
NSE	0	0	0	0	0
Total	627	630	689	662	675
FTE	3.6	3.7	4.2	3.4	2.6
Vacation & Sick (Nominal \$)					
Labor	64	72	81	73	72
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	64	72	81	73	72
FTE	0.6	0.6	0.8	0.6	0.5
Escalation to 2016\$					
Labor	36	27	20	9	0
Non-Labor	13	9	6	3	0
NSE	0	0	0	0	0
Total	49	36	26	12	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2016\$)					
Labor	538	552	607	554	505
Non-Labor	201	186	189	193	241
NSE	0	0	0	0	0
Total	740	738	796	747	747
FTE	4.2	4.3	5.0	4.0	3.1

* 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.

San Diego Gas & Electric Company
2019 GRC - APP
Shared Services Workpapers

Area: ELECTRIC GENERATION & SONGS
 Witness: Daniel S. Baerman
 Category: A. Resource Planning
 Category-Sub: 1. Resource Planning
 Cost Center: 2100-3433.000 - RESOURCE PLANNING DIRECTOR

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2012	2013	2014	2015	2016
Labor	0	0	0	0	0
Non-Labor	0	0	0	-166	0
NSE	0	0	0	0	0
Total	0	0	0	-166	0
FTE	0.0	0.0	0.0	0.0	0.0

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	0	-166	0	0.0	1-Sided Adj	KMANUEL20161128151957350
2015 Total		0	-166	0	0.0		
2016 Total		0	0	0	0.0		

Explanation: Software renewal fee duplicate payment removed in 2015.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2019 GRC - APP
Non-Shared Service Workpapers

Area: ELECTRIC GENERATION & SONGS
Witness: Daniel S. Baerman

Appendix A: List of Non-Shared Cost Centers

Cost Center	Sub	Description
2100-0299	000	SAN ONOFRE UNIT 2 Decommissioning
2100-0300	000	SAN ONOFRE COMMON FACILITIES
2100-0301	000	SAN ONOFRE UNIT 3 Decommissioning
2100-0302	000	SAN ONOFRE UNIT 2&3 C&O
2100-0735	000	Miramar Energy Facility
2100-0736	000	ELECTRIC GENERATION DIRECTOR
2100-0737	000	PALOMAR ENERGY CENTER
2100-3416	000	SONGS
2100-3597	000	Electric Project Development
2100-3805	000	Desert Star Energy Center
2100-3806	000	CUYAMACA PEAK ENERGY PLANT
2100-3959	000	OTAY MESA ENERGY CENTER