

Application of SOUTHERN CALIFORNIA GAS )  
COMPANY for authority to update its gas revenue )  
requirement and base rates )  
effective January 1, 2016 (U 904-G) )

Application No. 14-11-\_\_\_\_  
Exhibit No.: (SCG-11-WP)

## REDACTED PUBLIC VERSION

WORKPAPERS TO  
PREPARED DIRECT TESTIMONY  
OF EVAN D. GOLDMAN  
ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY

**REDACTED PAGE 91 of 305**

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA

NOVEMBER 2014



**2016 General Rate Case - APP  
INDEX OF WORKPAPERS**

**Exhibit SCG-11-WP - CS - OFFICE OPERATIONS**

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**Overall Summary For Exhibit No. SCG-11-WP**

<b>Area:</b>	<b>CS - OFFICE OPERATIONS</b>
<b>Witness:</b>	<b>Evan D. Goldman</b>

Description	In 2013 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
<b>Non-Shared Services</b>	92,875	93,559	95,577	98,076
<b>Shared Services</b>	6,002	6,032	6,032	6,032
<b>Total</b>	<b>98,877</b>	<b>99,591</b>	<b>101,609</b>	<b>104,108</b>

*Note: Totals may include rounding differences.*

Southern California Gas Company  
 2016 GRC - APP  
 Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman

**Summary of Non-Shared Services Workpapers:**

<b>Description</b>	<b>In 2013 \$ (000) Incurred Costs</b>			
	<b>Adjusted-Recorded</b>	<b>Adjusted-Forecast</b>		
	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
A. Customer Service Office Operations	92,875	93,559	95,577	98,076
<b>Total</b>	<b>92,875</b>	<b>93,559</b>	<b>95,577</b>	<b>98,076</b>

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Workpaper: VARIOUS

**Summary for Category: A. Customer Service Office Operations**

	In 2013\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	60,313	60,486	62,938	66,319
Non-Labor	13,143	13,876	14,068	13,799
NSE	19,420	19,198	18,572	17,959
<b>Total</b>	<b>92,876</b>	<b>93,560</b>	<b>95,578</b>	<b>98,077</b>
FTE	832.9	832.8	867.0	918.8

**Workpapers belonging to this Category:**

**20000.000 CCC - Operations**

Labor	30,875	30,281	31,734	34,531
Non-Labor	348	341	359	393
NSE	0	0	0	0
<b>Total</b>	<b>31,223</b>	<b>30,622</b>	<b>32,093</b>	<b>34,924</b>
FTE	442.7	433.2	456.5	500.7

**20001.000 CCC - Support**

Labor	6,015	6,153	6,451	6,923
Non-Labor	3,175	3,560	3,884	3,458
NSE	0	0	0	0
<b>Total</b>	<b>9,190</b>	<b>9,713</b>	<b>10,335</b>	<b>10,381</b>
FTE	76.2	77.6	80.7	86.7

**20002.000 Branch Offices**

Labor	8,404	8,404	8,404	8,404
Non-Labor	2,535	2,535	2,535	2,535
NSE	0	0	0	0
<b>Total</b>	<b>10,939</b>	<b>10,939</b>	<b>10,939</b>	<b>10,939</b>
FTE	128.7	128.7	128.7	128.7

**20003.000 Billing Services**

Labor	6,834	7,063	7,099	7,144
Non-Labor	98	98	98	98
NSE	0	0	0	0
<b>Total</b>	<b>6,932</b>	<b>7,161</b>	<b>7,197</b>	<b>7,242</b>
FTE	83.4	86.4	86.8	87.4

**20004.000 Credit and Collections**

Labor	2,863	2,980	2,980	2,980
Non-Labor	1,073	1,170	1,259	1,271
NSE	0	0	0	0
<b>Total</b>	<b>3,936</b>	<b>4,150</b>	<b>4,239</b>	<b>4,251</b>
FTE	37.2	38.8	38.8	38.8

Note: Totals may include rounding differences.

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2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Workpaper: VARIOUS

In 2013\$ (000) Incurred Costs			
Adjusted-Recorded	Adjusted-Forecast		
2013	2014	2015	2016

**200004.001 Credit and Collections Postage**

Labor	0	0	0	0
Non-Labor	0	0	0	0
NSE	1,899	1,308	1,308	1,308
<b>Total</b>	<b>1,899</b>	<b>1,308</b>	<b>1,308</b>	<b>1,308</b>
FTE	0.0	0.0	0.0	0.0

**200005.000 Remittance Processing**

Labor	1,880	1,880	1,880	1,880
Non-Labor	4,574	4,561	4,551	4,543
NSE	0	0	0	0
<b>Total</b>	<b>6,454</b>	<b>6,441</b>	<b>6,431</b>	<b>6,423</b>
FTE	25.6	25.6	25.6	25.6

**200005.001 Remittance Processing Postage**

Labor	0	0	0	0
Non-Labor	0	0	0	0
NSE	17,521	17,890	17,264	16,651
<b>Total</b>	<b>17,521</b>	<b>17,890</b>	<b>17,264</b>	<b>16,651</b>
FTE	0.0	0.0	0.0	0.0

**200006.000 Customer Service Other Office Ops and Technology**

Labor	2,567	2,850	3,515	3,582
Non-Labor	764	1,033	803	920
NSE	0	0	0	0
<b>Total</b>	<b>3,331</b>	<b>3,883</b>	<b>4,318</b>	<b>4,502</b>
FTE	27.7	31.1	38.5	39.5

**200007.000 Measurement Data Ops (MDO)**

Labor	875	875	875	875
Non-Labor	576	578	579	581
NSE	0	0	0	0
<b>Total</b>	<b>1,451</b>	<b>1,453</b>	<b>1,454</b>	<b>1,456</b>
FTE	11.4	11.4	11.4	11.4

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**200000.000 - CCC - Operations**

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 1. CCC - Operations  
 Workpaper: 200000.000 - CCC - Operations

**Activity Description:**

Labor and non-labor costs associated with the Customer Contact Center (CCC) Operations. CCC expenses cover the costs of answering customer telephone calls related to Gas Leaks, Service Orders, and Billing and Payments; responding to incoming email from customers; responding to inquiries from socialgas.com website and My Account; processing faxed fumigation orders; and, responding to other customer account related inquiries.

**Forecast Explanations:**

**Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project CCC Operations O&M costs. 2013 Base Year customer contact volumes reflect customer adoption of self-service options resulting from SoCalGas' capital investments and continuous improvement efforts for IVR, web and mobile options. Adjustments to base year call volume have been made to account for meter growth, adoption of self-service, and incremental safety orders. The forecast was built using call center workforce management software and based on projected call volume, level of service (LOS), average handle time (AHT), agent occupancy and shrinkage.

**Non-Labor - Base YR Rec**

For the CCC Operations non-labor category, a base year recorded forecast was used. These non-labor expenses primarily consist of office supplies, office furniture, headsets and travel expenses. (Communications and annual software maintenance and Telco are captured under the CCC-Support Non-Labor category).

**NSE - Base YR Rec**

NSE is not applicable to this workgroup.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		35,924	38,009	34,954	32,059	30,875	30,281	31,734	34,531	
Non-Labor		390	449	480	375	348	341	359	393	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>36,313</b>	<b>38,458</b>	<b>35,434</b>	<b>32,434</b>	<b>31,223</b>	<b>30,622</b>	<b>32,093</b>	<b>34,924</b>	
FTE		515.6	529.8	495.9	460.2	442.7	433.2	456.5	500.7	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 1. CCC - Operations  
 Workpaper: 200000.000 - CCC - Operations

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	30,875	30,875	30,875	-594	859	3,656	30,281	31,734	34,531
Non-Labor	Base YR Rec	348	348	348	-7	11	45	341	359	393
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>31,223</b>	<b>31,223</b>	<b>31,223</b>	<b>-601</b>	<b>870</b>	<b>3,701</b>	<b>30,622</b>	<b>32,093</b>	<b>34,924</b>
FTE	Base YR Rec	442.7	442.7	442.7	-9.5	13.8	58.0	433.2	456.5	500.7

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	121	0	0	121	1.9	1-Sided Adj

Meter Growth: An increase in CSR Call volume from 2013 Base Year for meter growth. 2014 Active Meters = 5,631,340 x the 2013 rate of 1.13 CSR Calls Per Active Meter = 6,340,968, less 2013 CSR Call Volume - 6,312,561 = additional 28,407 CSR calls. In 2013 14,749 calls per CSR were handled. (121K and 1.9 FTEs)

2014	-836	0	0	-836	-13.3	1-Sided Adj
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A reduction of 196340 CSR calls answered resulting from a higher adoption of self-service due to an expansion of self-service offerings and enhanced usability, 14,749 calls per CSR (-836K in Labor and -13.3 FTEs)

2014	72	0	0	72	1.0	1-Sided Adj
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2013 Base Year numbers include two supervisor positions that were staffed for six months each and totaled (72K in Labor and 1.0 FTE). An adjustment of 72K and 1.0 FTE has been made to reflect full year staffing levels for these positions in forecast years. (72K in Labor and 1.0 FTE)

2014	12	0	0	12	0.3	1-Sided Adj
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2013 Base Year numbers include six months of Administrative salary (24K in Labor and .5 FTE). An adjustment of 12K in Labor and .3 FTE has been made for 2014 to reflect nine months of staffing for the position in this forecast year. (12K in Labor and .3 FTE)

2014	75	0	0	75	1.2	1-Sided Adj
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As a result of the reduction of 88k Close Order calls with an AHT of 199 secs, overall AHT will increase by 0.8 sec. .8 seconds AHT x 1.5 FTEs per second AHT (75K in Labor and 1.2 FTEs)

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 1. CCC - Operations  
Workpaper: 200000.000 - CCC - Operations

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	-38	0	0	-38	-0.6	1-Sided Adj

Process efficiencies resulted in 100k Close Order calls having AHT reduced by 25 secs = -0.4 sec overall change in AHT x 1.5 FTEs per sec AHT (-38K in Labor and -.6 FTE)

2014	0	-7	0	-7	0.0	1-Sided Adj
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Decrease in non-labor due to a reduction in FTEs. 2013 average non-labor per CSR FTE = \$785 x -9.5 = (\$7K in Non-Labor)

<b>2014 Total</b>	<b>-594</b>	<b>-7</b>	<b>0</b>	<b>-601</b>	<b>-9.5</b>	
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2015	293	0	0	293	4.7	1-Sided Adj
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Meter Growth: An increase in CSR Call volume from 2013 Base Year for meter growth. 2015 Active Meters = 5,667,131 x the 2013 rate of 1.13 CSR Calls Per Active Meter = 6,381,268, less 2013 CSR Call Volume - 6,312,561 = additional 68,707 CSR calls. In 2013 14,749 calls per CSR were handled. (293K in Labor and 4.7 FTEs)

2015	-1,224	0	0	-1,224	-19.5	1-Sided Adj
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A reduction of 287465 CSR calls answered resulting from a higher adoption of self-service due to an expansion of self-service offerings and enhanced usability, 14,749 calls per CSR (-1,224K in Labor and -19.5 FTEs)

2015	754	0	0	754	12.0	1-Sided Adj
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An increase CSR LOS by 5% above 2013 levels (from 60% in 2013 and 2014 to 65% in 2015). 5 percentage pts x 2.4 FTEs per pt. (754K in Labor and 12.0 FTEs)

2015	122	0	0	122	2.0	1-Sided Adj
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An increase in CSR overall AHT due to capturing customer preference for future contact. 10 secs x 821,856 calls (based on 2013 volume) = 1.3 secs x 1.5 ftes per 1 sec AHT. (122K in Labor and 2.0 FTEs)

2015	188	0	0	188	3.0	1-Sided Adj
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An increase in CSR overall AHT due to CSRs signing customers up for MyAccount. 10 secs x 1,289,820 calls (based on 2013 volume) = 2 secs increase in overall AHT x 1.5 ftes per 1 sec AHT = 3 FTEs. (188K in Labor and 3.0 FTEs)

2015	72	0	0	72	1.0	1-Sided Adj
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Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 1. CCC - Operations  
 Workpaper: 200000.000 - CCC - Operations

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>
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2013 Base Year numbers include two supervisor positions that were staffed for six months each and totaled (72K in Labor and 1.0 FTE). An adjustment of 72K and 1.0 FTE has been made to reflect full year staffing levels for these positions in forecast years. (72K in Labor and 1.0 FTE)

2015	24	0	0	24	0.5	1-Sided Adj
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2013 Base Year numbers include six months of Administrative salary (24K in Labor and .5 FTE). An adjustment of 24K in Labor and .5 FTE has been made to reflect full year staffing in 2015 and 2016. (24K in Labor and .5 FTE)

2015	593	0	0	593	9.5	1-Sided Adj
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An increase in AHT due to CSRs signing customers up for CARE effective 7/1/15. 63 secs x 632,668 calls (based on 2013 volume) = 6.3 sec increase in overall AHT x 1.5 ftes per 1 sec AHT = 9.5 FTEs. (\$593K in Labor and 9.5 FTEs). Note regarding CSR CARE enrollment: SoCalGas is also requesting funding for CSR CARE enrollment costs in the Low Income Programs proceeding projected for Q4 2014. If funding is approved as part of the Low Income Programs proceeding, update testimony will be filed to remove the funding request from this GRC application.

2015	75	0	0	75	1.2	1-Sided Adj
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As a result of the reduction of 88k Close Order calls with an AHT of 199 secs, overall AHT will increase by 0.8 secl. .8 seconds AHT x 1.5 FTEs per second AHT (75K in Labor and 1.2 FTEs)

2015	-38	0	0	-38	-0.6	1-Sided Adj
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Process efficiencies resulted in 100k Close Order calls having AHT reduced by 25 secs = -0.4 sec overall change in AHT x 1.5 FTEs per sec AHT (-38K in Labor and -.6 FTE)

2015	0	11	0	11	0.0	1-Sided Adj
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An increase in non-labor due to an increase in FTEs. 2013 average non-labor per CSR FTE = \$785 x 13.7 = (\$11K in Non-Labor)

<b>2015 Total</b>	<b>859</b>	<b>11</b>	<b>0</b>	<b>870</b>	<b>13.8</b>	
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2016	498	0	0	498	7.9	1-Sided Adj
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Meter Growth: An increase in CSR Call volume from 2013 Base Year for meter growth. 2016 Active Meters = 5,709,903 x the 2013 rate of 1.13 CSR Calls Per Active Meter = 6,429,431, less 2013 CSR Call Volume - 6,312,561 = additional 116,870 CSR calls. In 2013 14,749 calls per CSR were handled. (498K in Labor and 7.9 FTEs) See CCC Operations 200000.000 Supplemental Workpaper 1-2 Row 13 for details.

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 1. CCC - Operations  
Workpaper: 200000.000 - CCC - Operations

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2016	-1,224	0	0	-1,224	-19.5	1-Sided Adj

A reduction of 287 465 CSR calls answered resulting from a higher adoption of self-service due to an expansion of self-service offerings and enhanced usability, 14,749 calls per CSR (-1,224K in Labor and -19.5 FTEs) See CCC Operations 200000.000 Supplemental Workpaper 1-2 Row 14 for details.

2016	1,507	0	0	1,507	24.0	1-Sided Adj
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An increase CSR LOS by 10% above 2013 levels (from 60% in 2013 and 2014 to 65% in 2015 and 70% in 2016). 10 percentage pts x 2.4 FTEs per pt. See CCC Operations 200000.000 Supplemental Workpaper 3 for details on FTEs and Labor dollars at various CSR LOS percentages. SoCalGas has based the request on the data in Column E at the 70% CSR LOS (1,507K in Labor and 24.0 FTEs). This adjustment combined with a separate adjustment for one additional supervisor at \$72K equals \$1,579,000 and 25.0 FTEs.

2016	122	0	0	122	2.0	1-Sided Adj
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An increase in CSR overall AHT due to capturing customer preference for future contact. 10 secs x 821,856 calls(based on 2013 volume) = 1.3 secs x 1.5 ftes per 1 sec AHT. (122K in Labor and 2.0 FTEs). This request makes up portion of the \$441K and 7.0 FTEs requested to support an net increase of 4.7 seconds of AHT. Details regarding the 1.5 FTEs per second of AHT can be found in CCC Operations 200000.000 Supplemental Workpaper 5 Rows 35-53 in the AHT Sensitivity Chart.

2016	94	0	0	94	1.5	1-Sided Adj
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An increase in AHT due to CSRs asking for landlord information on start service orders to help target offerings to renters. 6 secs x 1,040,319 calls (based on 2013 call volumes) = 1 secs x 1.5 FTEs per 1 sec AHT = 1.5 FTEs (94K in Labor and 1.5 FTEs). This request makes up portion of the \$441K and 7.0 FTEs requested to support an net increase of 4.7 seconds of AHT. Details regarding the 1.5 FTEs per second of AHT can be found in CCC Operations 200000.000 Supplemental Workpaper 5 Rows 35-53 in the AHT Sensitivity Chart.

2016	188	0	0	188	3.0	1-Sided Adj
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An increase in CSR overall AHT due to CSRs signing customers up for MyAccount. 10 secs x 1,250,734 calls (based on 2013 volume) = 2 secs increase in overall AHT x 1.5 ftes per 1 sec AHT = 3 FTEs. (188K in Labor and 3.0 FTEs) This request makes up portion of the \$441K and 7.0 FTEs requested to support an net increase of 4.7 seconds of AHT. Details regarding the 1.5 FTEs per second of AHT can be found in CCC Operations 200000.000 Supplemental Workpaper 5 Rows 35-53 in the AHT Sensitivity Chart.

2016	47	0	0	47	0.8	1-Sided Adj
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*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 1. CCC - Operations  
 Workpaper: 200000.000 - CCC - Operations

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
<p>In support of CSF s initiative - CSRs will offer expanded appliance safety checks. This will add 30 seconds AHT to an estimated 95,209 CSO calls (based on 2013 call volumes), increasing year end AHT by 0.5 seconds. (47K and .8FTE)</p>						
2016	169	0	0	169	2.7	1-Sided Adj
<p>In support of CSF s initiative to offer 50 000 customer outreach safety checks. Based on 2013 CSO order channel preferences, an estimated 79.2% of 50,000 (39,600) calls to the CSRs. 14,749 calls per CSR (169K in Labor and 2.7 FTEs). See CCC Operations 200000.000 Supplemental Workpaper 1-2 Row 15 for FTE and Labor dollar details. Also see CCC Operations 200000.000 Supplemental Workpaper 1-3 for Customer Outreach Safety Check Call Volume Breakdown.</p>						
2016	791	0	0	791	12.6	1-Sided Adj
<p>In support of the CSF Department of Transportation required - MSA Inspection Program - an additional 188,653 calls to the CCC at an AHT of 247 seconds. Call volume based on 10% CGI rate for attempted inspections. 14,749 Calls per CSR (791K and 12.6FTEs). See CCC Operations 200000.000 Supplemental Workpaper 1-2 Row 16 for details.</p>						
2016	72	0	0	72	1.0	1-Sided Adj
<p>2013 Base Year numbers include two supervisor positions that were staffed for six months each and totaled (72K in Labor and 1.0 FTE). An adjustment of 72K and 1.0 FTE has been made to reflect full year staffing levels for these positions in forecast years. (72K in Labor and 1.0 FTE). This adjustment is combined with a \$24K adjustment for an administrative support position to total \$96K and 1.5 FTEs for full labor costs of positions that incurred partial recorded expenses in Base Year 2013.</p>						
2016	24	0	0	24	0.5	1-Sided Adj
<p>2013 Base Year numbers include six months of Administrative salary (24K in Labor and .5 FTE). An adjustment of 24K in Labor and .5 FTE has been made to reflect full year staffing in 2015 and 2016. (24K in Labor and .5 FTE). This adjustment is combined with a \$72K adjustment for two supervisor positions to total \$96K and 1.5 FTEs for full labor costs of positions that incurred partial recorded expenses in Base Year 2013.</p>						
2016	75	0	0	75	1.2	1-Sided Adj
<p>As a result of the reduction of 88k Close Order calls with an AHT of 199 secs, overall AHT will increase by 0.8 sec. .8 seconds AHT x 1.5 FTEs per second AHT (75K in Labor and 1.2 FTEs) This request makes up portion of the \$441K and 7.0 FTEs requested to support a net increase of 4.7 seconds of AHT. Details regarding the 1.5 FTEs per second of AHT can be found in CCC Operations 200000.000 Supplemental Workpaper 5 Rows 35-53 in the AHT Sensitivity Chart.</p>						

Note: Totals may include rounding differences.

Southern California Gas Company  
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Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 1. CCC - Operations  
Workpaper: 200000.000 - CCC - Operations

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>
2016	-38	0	0	-38	-0.6	1-Sided Adj

Process efficiencies resulted in 100k Close Order calls having AHT reduced by 25 secs = -0.4 sec overall change in AHT x 1.5 FTEs per sec AHT (-38K in Labor and -.6 FTE) This request makes up portion of the \$441K and 7.0 FTEs requested to support an net increase of 4.7 seconds of AHT. Details regarding the 1.5 FTEs per second of AHT can be found in CCC Operations 200000.000 Supplemental Workpaper 5 Rows 35-53 in the AHT Sensitivity Chart.

2016	1,187	0	0	1,187	18.9	1-Sided Adj
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An increase in AHT due to CSRs signing customers up for CARE effective 7/1/15. 63 secs x 1,265,336 calls (based on 2013 volume) = 12.6 sec increase in overall AHT x 1.5 ftes per 1 sec AHT = 18.9 FTEs. (1,187K in Labor and 18.9 FTEs). See CCC Operations 200000.000 Supplemental Workpaper 5 CARE Cell C29 for FTEs and C31 for Labor details. This request combines with a request for one supervisor at \$72K to equal \$1,259,000. Note regarding CSR CARE enrollment: SoCalGas is also requesting funding for CSR CARE enrollment costs in the Low Income Programs proceeding projected for Q4 2014. If funding is approved as part of the Low Income Programs proceeding, update testimony will be filed to remove the funding request from this GRC application.

2016	72	0	0	72	1.0	1-Sided Adj
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Add 1 additional supervisor to keep the span of control at 15 to 1, due to the increase in CSRs required to answer the additional call volume at 70% LOS. (72K in Labor and 1.0 FTE) The 15 to 1 supervisor ratio is supported by CCC Operations 200000.000 Supplemental workpaper 4. The FTE requirement related to having CSR LOS at 70% is detailed in The 15 to 1 supervisor ratio is supported by CCC Operations 200000.000 Supplemental workpaper 3 Column E. This adjustment combined with a separate adjustment for \$1,507K and 24.0 FTEs equals \$1,579,000 and 25.0 FTEs required to operate at a CSR LOS of 70% based on the 2016 call volume forecast.

2016	72	0	0	72	1.0	1-Sided Adj
------	----	---	---	----	-----	-------------

Add 1 additional supervisor to keep the span of control at 15 to 1, due to the increase in CSRs needed for signing customers up for CARE. (72K in labor and 1.0 FTE) This request combines with a request for 19.9 CSR FTEs and \$1,187K to equal \$1,259,000. \*Will be offset by amount approved in CARE filing. The 15 to 1 supervisor ratio is supported by CCC Operations 200000.000 Supplemental workpaper 4. The CARE FTE requirement that justifies the need for an additional supervisor is detailed in CCC Operations 200000.000 Supplemental workpaper 5 Row 29.

2016	0	45	0	45	0.0	1-Sided Adj
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An increase in non-labor due to an increase in FTEs. 2013 average non-labor per CSR FTE = \$785 x 57.9 (total CSR FTEs requested above 2013) = (\$45K in Non-Labor)

Note: Totals may include rounding differences.

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Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 1. CCC - Operations  
Workpaper: 200000.000 - CCC - Operations

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
<b>2016 Total</b>	<b>3,656</b>	<b>45</b>	<b>0</b>	<b>3,701</b>	<b>58.0</b>	

*Note: Totals may include rounding differences.*

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Area: CS - OFFICE OPERATIONS  
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Category: A. Customer Service Office Operations  
Category-Sub: 1. CCC - Operations  
Workpaper: 200000.000 - CCC - Operations

**Determination of Adjusted-Recorded (Incurred Costs):**

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	27,605	30,112	28,623	26,986	26,475
Non-Labor	352	415	462	368	348
NSE	0	0	0	0	0
<b>Total</b>	<b>27,957</b>	<b>30,527</b>	<b>29,085</b>	<b>27,354</b>	<b>26,823</b>
FTE	433.6	448.7	423.5	394.7	378.7
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	27,605	30,112	28,623	26,986	26,475
Non-Labor	352	415	462	368	348
NSE	0	0	0	0	0
<b>Total</b>	<b>27,957</b>	<b>30,527</b>	<b>29,085</b>	<b>27,354</b>	<b>26,823</b>
FTE	433.6	448.7	423.5	394.7	378.7
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	4,988	5,264	4,754	4,320	4,400
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>4,988</b>	<b>5,264</b>	<b>4,754</b>	<b>4,320</b>	<b>4,400</b>
FTE	82.0	81.1	72.5	65.5	64.0
<b>Escalation to 2013\$</b>					
Labor	3,330	2,634	1,576	753	0
Non-Labor	38	34	18	6	0
NSE	0	0	0	0	0
<b>Total</b>	<b>3,368</b>	<b>2,668</b>	<b>1,595</b>	<b>760</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	35,924	38,009	34,954	32,059	30,875
Non-Labor	390	449	480	375	348
NSE	0	0	0	0	0
<b>Total</b>	<b>36,313</b>	<b>38,458</b>	<b>35,434</b>	<b>32,434</b>	<b>31,223</b>
FTE	515.6	529.8	496.0	460.2	442.7

\* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

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Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 1. CCC - Operations  
 Workpaper: 200000.000 - CCC - Operations

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2009 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2010 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2011 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2012 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Supplemental Workpapers for Workpaper 200000.000**

Southern California Gas Company  
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CCC Operations 200000.000 Supplemental Workpaper 1-1  
Call Volume Forecast

	A	B	C	D
1	Base Year (2013) Forecast			
2		CSR	IVR	Total
3	2013 Call Volume	6,312,561	2,693,197	9,005,758
5	2013 Active Meters	5,606,113	5,606,113	5,606,113
6	2013 Calls Per Active Meter = <b>Row3/Row5</b>	1.13	0.48	1.61
8	<b>2014</b>			
9	2014 Active Meters	5,631,340	5,631,340	5,631,340
11	2014 Call volume with meter growth = <b>Row9*Row6</b>	6,340,968	2,705,316	9,046,284
12	2014 CSR Calls Above Base Year for Meter Growth = <b>Row11-Row3</b>	28,407		
13	2014 Self Service Reductions	(196,340)	196,340	-
14	2014 Call Forecast= <b>Row11+Row13</b>	6,144,627	2,901,657	9,046,284
16	<b>2015</b>			
17	2015 Active Meters	5,667,131	5,667,131	5,667,131
19	2015 Call volume with meter growth= <b>Row17*Row6</b>	6,381,268	2,722,510	9,103,778
20	2015 CSR Calls Above Base Year for Meter Growth = <b>Row19-Row3</b>	68,707		
21	2015 Self Service Reductions	(287,465)	287,465	-
22	2015 Call Forecast= <b>Row19+Row21</b>	6,093,803	3,009,975	9,103,778
24	<b>2016</b>			
25	2016 Active Meters	5,709,903	5,709,903	5,709,903
27	2016 Call volume with meter growth= <b>Row25*Row6</b>	6,429,431	2,743,058	9,172,489
28	2016 CSR Calls Above Base Year for Meter Growth = <b>Row27-Row3</b>	116,870		
29	2016 Self Service Reductions*	(287,465)	287,465	-
30	2016 CSR Call Volume Forecast Before New Field Initiatives = <b>Row27+Row29</b>	6,141,966	3,030,523	9,172,489
32	2016 Increases based on new Field Initiatives Customer Outreach Safety Checks - targeted by field during non-peak season - 50,000 total @ 79.2% through a CSR.	39,600		39,600
35	DOT Required MSA Inspection Program- Effective 2016 (based on 10% CGI of total inspections)	188,653		188,653
37	2016 Call Forecast = <b>Row30 + SUM(Row33:35)</b>	6,370,219	3,030,523	9,400,742
38	*"SoCalGas" is projecting a 3.5% increase in the self-service adoption rate, which will result in a test year 2016 reduction of 287,500 CSR answered calls. This projection reflects a 4.5% reduction in CSR answered calls for 2014 IVR enhancements to the Customer Service Order, Payment Arrangement/Extension and Billing menus in addition to the full year of benefits from changes implemented in 2013 to Close Order, Payment Arrangement/Extension and Usability Enhancement to the overall IVR menus.			

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CCC Operations 200000.000 Supplemental Workpaper 1-2  
Labor Dollars Adjustments For CSR Call Volume Changes

	A	B	C	D	E
1	<b>Calls Answered per CSR FTE</b>				
2		2013 CSR Calls Answered	6,312,561		
3		2013 CSR FTEs	428		
4		Calls per FTE = C2/C3	14,749		
5					
6		Dollars Based on 2013 Part Time Labor Rate		\$ 62,800	
7					
8	Year	Description	Calls	FTEs= Column C /14,749	Dollars= Column D* \$62800
9	2014	Meter Growth=Cell B12 CCC Operations 200000.000 Supplemental Workpaper 1-1	28,407	1.9	\$ 120,953
10	2014	Self-Service Reduction= Cell B13 CCC Operations 200000.000 Supplemental Workpaper 1-1	(196,340)	-13.3	\$ (836,001)
11	2015	Meter Growth= Cell B20 CCC Operations 200000.000 Supplemental Workpaper 1-1	68,707	4.7	\$ 292,549
12	2015	Self-Service Reduction= Cell B21 CCC Operations 200000.000 Supplemental Workpaper 1-1	(287,465)	-19.5	\$ (1,224,002)
13	2016	Meter Growth=Cell B28 CCC Operations 200000.000 Supplemental Workpaper 1-1	116,870	7.9	\$ 497,623
14	2016	Self-Service Reduction=Cell B29 CCC Operations 200000.000 Supplemental Workpaper 1-1	(287,465)	-19.5	\$ (1,224,002)
15	2016	Customer Outreach Safety Checks=Cell B33 CCC Operations 200000.000 Supplemental Workpaper 1-1	39,600	2.7	\$ 168,614
16	2016	Program=Cell B35 CCC Operations 200000.000 Supplemental Workpaper 1-1	188,653	12.6	\$ 791,280

Southern California Gas Company  
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CCC Operations 200000.000 Supplemental Workpaper 1-3  
Customer Outreach Safety Check Calls

	A	B	C	D
1				
2	2013 CSOs Issued by Channel			
3	CSR	438,658	79.2%	
4	IVR	77,921	14.1%	
5	Web	36,982	6.7%	
6	Total	553,561	100.0%	
7				
8	50,000 Calls From the Customer Outreach Safety Check Program			
9	2016	Call Type	Channel%	Calls = (Column C*50,000)
10		CSR	79.2%	39,621
11		IVR	14.1%	7,038
12		Web	6.7%	3,340
13		Total	100.0%	50,000

CCC Operations 20000.000 Supplemental Workpaper 2  
eWFM Labor and FTE calculations

	A	B	C	D	F	G	H	I
1			FTEs			Labor Dollars		
2		2014	2015	2016		2014	2015	2016
3	Annual Payroll Hours	2,088	2,088	2,088				
4	CSR Calls Handled Forecast: See Supplemental <b>Workpaper 1-1</b> <b>Cell B14, B22, and B37</b>	6,144,627	6,093,803	6,370,219				
5	CSR Level of Service Used in Forecast	60%	65%	70%				
6	Occupancy at Forecasted CSR LOS based on historical data	90.20%	87.60%	85.00%				
7	Overall Average Handle Time (AHT) See <b>Table 13</b> in Prepared <b>Direct Testimony</b>	255	265	273				
8	Base FTEs from "Eworkforce" (eWFM) Calculated from inputs in <b>rows 4-7</b>	232.0	246.2	272.5				
9	Total CSR Shrinkage (based on 2013 actuals)	37.8%	37.8%	37.8%				
10	FTEs Required for Shrinkage ( <b>Row11 - Row 8</b> )	141.0	149.6	165.6				
11	Total FTEs required with CSR Shrinkage ( <b>Row8*(1-Row 9)</b> )	372.9	395.8	438.1				
12	Less: Set Desk FTEs (2013 Capital FTEs with Shrinkage)	(15.2)	(15.2)	(15.2)				
13	CSRs Less Set Desk FTEs ( <b>Sum of Rows 11 and 12</b> )	357.7	380.6	422.9				
14	New CSR1 Trainee FTEs (Based on 2013 Actual CSR1 Trainee hours of 18,360 divided by 2088 annual hours )	8.8	8.8	8.8				
15	Total CSR FTEs ( <b>Sum of Rows 13 and 14</b> )	366.5	389.4	431.7				
17								
18	<b>Summary of Forecasted CSR FTE and Labor Dollars</b>				Hourly Rate	<b>(Hourly Rate in Column F * Annual FTEs in Columns B-D * 2088 Annual Hours)</b>		
19	FT CSR FTEs (2013 Actual)	240.8	240.8	240.8	\$ 33.3	\$ 16,747,948	\$ 16,747,948	\$ 16,747,948
20	PT CSR FTEs*	108.0	130.9	173.2	\$ 30.1	\$ 6,778,650	\$ 8,215,975	\$ 10,870,946
21	Overtime FTEs (2013 Actual)	8.9	8.9	8.9	\$ 55.0	\$ 1,022,010	\$ 1,022,010	\$ 1,022,010
22	CSR-1 Trainees (2013 Actual)	8.8	8.8	8.8	\$ 14.2	\$ 260,182	\$ 260,182	\$ 260,182
23	Total ( <b>Sum of Rows 19-22</b> )	366.5	389.4	431.7		\$ 24,808,790	\$ 26,246,115	\$ 28,901,086
24	*Additional FTEs @ PT Rate = \$62.8k							
25								
26	Other FTE Forecast							
27	FTEs				Hourly Rate	<b>(Hourly Rate in Column F * Annual FTEs in Columns B-D * 2088 Annual Hours)</b>		
28	Manager (2013 Actual)	3.0	3.0	3.0	\$ 58.1	\$ 364,126	\$ 364,126	\$ 364,126
29	Supervisor (2013 Actual + additional FTEs to keep Span of <b>Control at 15:1 in 2016</b> ** 2 supervisors at \$72K in 2016	32.5	32.5	34.5	\$ 37.7	\$ 2,561,778	\$ 2,561,778	\$ 2,705,778
30	Administrative (Based on 2013 Full Staffing)	1.8	2.0	2.0	\$ 23.0	\$ 84,005	\$ 96,006	\$ 96,006
31	Lead CSRs (2013 Actual)	35.0	35.0	35.0	\$ 39.4	\$ 2,880,083	\$ 2,880,083	\$ 2,880,083
32	HBI-Clerk (2013 Actual)	0.5	0.5	0.5	\$ 28.6	\$ 29,838	\$ 29,838	\$ 29,838
33	Total Other ( <b>Sum of rows 28-32</b> )	72.8	73.0	75.0		\$ 5,919,830	\$ 5,931,831	\$ 6,075,831
34	**New Supervisors @ \$72k							
35								
36	Total FTEs and Labor Dollars in CCC Operations ( <b>Sum of Rows 23 and 33</b> )	439.3	462.4	506.7		30,728,620	32,177,946	34,976,917
37	Delta due to Vacation & Sick (V&S) ***	(6.1)	(6.0)	(6.1)		(447,465)	(443,279)	(444,749)
38	FTEs in workpapers ( <b>Sum of Rows 36 and 37</b> )	433.2	456.4	500.6		\$ 30,281,155	\$ 31,734,667	\$ 34,532,168
40								
43	***The delta for the Vacation & Sick (V&S) is the difference between the actual 2013 CCC V&S and the company calculated V&S in GRID. The actual CCC V&S is higher than the amount calculated in GRID so using the GRID number results in a lower FTE and Labor Dollar request.							

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CCC Operations 20000.000 Supplemental Workpaper 3  
CSR LOS Dollars at Various Levels

	A	B	C	D	E	F	G	H	
1			2016	2016	2016	2016	2016	2016	
2	CSR Level of Service Used in Forecast		60%	65%	70%	75%	80%	85%	
3	Occupancy Rate at Forecasted CSR LOS (Based on historical data)		90.2%	87.6%	85.0%	82.5%	80.0%	77.5%	
4	FT CSR FTEs (2013 Actual)		240.8	240.8	240.8	240.8	240.8	240.8	
5	PT CSR FTEs (each 1% of CSR LOS requires 2.4 FTEs see LOS Sensitivity Chart Below)		148.7	161.1	173.2	186.4	200.6	215.6	
6	Overtime FTEs (2013 Actual)		8.9	8.9	8.9	8.9	8.9	8.9	
7	CSR-1 Trainees (Based on 2013 actual CSR Trainee Hours 18360/2088)		8.8	8.8	8.8	8.8	8.8	8.8	
8	Total (Sum of Rows 4:7)		407.2	419.6	431.7	444.9	459.1	474.1	
10	FTE Hours in Year		2,088	2,088	2,088	2,088	2,088	2,088	
12	Hourly Rate		(Hourly Rate in Column B * Annual FTEs in Rows 4:7 * Hours in Row 10)						
13	FT CSRs	\$ 33.3	\$ 16,747,948	\$ 16,747,948	\$ 16,747,948	\$ 16,747,948	\$ 16,747,948	\$ 16,747,948	
14	PT CSRs	\$ 30.1	\$ 9,333,197	\$ 10,111,487	\$ 10,870,946	\$ 11,699,448	\$ 12,590,715	\$ 13,532,194	
15	Overtime	\$ 55.0	\$ 1,022,010	\$ 1,022,010	\$ 1,022,010	\$ 1,022,010	\$ 1,022,010	\$ 1,022,010	
16	CSR-1 Trainees	\$ 14.2	\$ 260,182	\$ 260,182	\$ 260,182	\$ 260,182	\$ 260,182	\$ 260,182	
17	Total CSR Labor (Sum of Rows 13:16)		\$ 27,363,337	\$ 28,141,626	\$ 28,901,086	\$ 29,729,588	\$ 30,620,855	\$ 31,562,334	
19	Other Labor Forecast		2016	2016	2016	2016	2016	2016	
20	FTEs								
21	Manager (2013 Actual)		3.0	3.0	3.0	3.0	3.0	3.0	
22	Supervisor (2013 Actual + additional FTEs to keep Span of Control at 15:1) 2 supervisors @ \$72k in 2016		32.5	32.5	34.5	35.5	36.5	36.5	
23	Administrative		2.0	2.0	2.0	2.0	2.0	2.0	
24	Lead CSR FTEs (2013 Actual)		35.0	35.0	35.0	35.0	35.0	35.0	
25	HBI-Clerk (2013 Actual)		0.5	0.5	0.5	0.5	0.5	0.5	
26	Total Other (Sum of Rows 21 to 25)		73.0	73.0	75.0	76.0	77.0	77.0	
28	Hourly Rate		(Hourly Rate in Column B * Annual FTEs in Rows 21-25 * Hours in Row 10)						
29	Manager	\$ 58.1	\$ 364,126	\$ 364,126	\$ 364,126	\$ 364,126	\$ 364,126	\$ 364,126	
30	Supervisor	\$ 37.7	\$ 2,561,778	\$ 2,561,778	\$ 2,705,778	\$ 2,777,778	\$ 2,849,778	\$ 2,921,778	
31	Administrative	\$ 23.0	\$ 96,006	\$ 96,006	\$ 96,006	\$ 96,006	\$ 96,006	\$ 96,006	
32	Leads	\$ 39.4	\$ 2,880,083	\$ 2,880,083	\$ 2,880,083	\$ 2,880,083	\$ 2,880,083	\$ 2,880,083	
33	HBI-Clerk	\$ 28.6	\$ 29,838	\$ 29,838	\$ 29,838	\$ 29,838	\$ 29,838	\$ 29,838	
34	Total Other Labor (Sum of Rows 29 to 33)		\$ 5,931,831	\$ 5,931,831	\$ 6,075,831	\$ 6,147,831	\$ 6,219,831	\$ 6,291,831	
36	Grand Total Labor (Sum of Rows 17 and 34)		\$ 33,295,168	\$ 34,073,457	\$ 34,976,917	\$ 35,877,419	\$ 36,840,686	\$ 37,854,165	
38	Less: Vacation & Sick Differential***		\$ (444,749)	\$ (444,749)	\$ (444,749)	\$ (444,749)	\$ (444,749)	\$ (444,749)	
40	Total Labor Required (Sum of Rows 36 and 38)		\$ 32,850,419	\$ 33,628,708	\$ 34,532,168	\$ 35,432,670	\$ 36,395,937	\$ 37,409,416	
41	***The delta for the Vacation & Sick (V&S) is the difference between the actual 2013 CCC V&S and the company calculated V&S in GRID. The actual CCC V&S is higher than the amount calculated in GRID so using the GRID number results in a lower FTE and Labor Dollar request.								
42			LOS Sensitivity						
43	2016 AHT Forecast		272.6	272.6	272.6				
44	Annual Payroll Hours		2,088	2,088	2,088				
45	Customer Service Representative (CSR) 2016 Calls Handled Forecast		6,370,219	6,370,219	6,370,219				
46	CSR Level of Service Used in Forecast		70%	65%	60%				
47	Occupancy (Based on Historical numbers at each CSR LOS rate)		85.00%	87.60%	90.20%				
48	Overall Average Handle Time (AHT)		272.6	272.6	272.6				
49	Base FTEs from "Eworkforce" (eWFM) calculated from inputs in Rows 43 through 48		272.6	265.0	257.4				
50	Total Shrinkage (Based on 2013 actuals)		37.8%	37.8%	37.8%				
51	FTEs Required for Shrinkage (Row 52-Row 49)		165.7	161.0	156.4				
52	Total FTEs required with Absence & Training Shrinkage (Row 49/ (1-Row 50)		438.3	426.0	413.8				
53	Less: Set Desk FTEs (2013 Capital FTEs with Shrinkage)		(15.2)	(15.2)	(15.2)				
54	CSRs Less Set Desk FTEs (Row 52 + Row 53)		423.1	410.8	398.6				
55	Add New CSR Training FTEs (Based on 2013 CSR Trainee Hours of 18,360/2088)		8.8	8.8	8.8				
56	Add: Lead CSR FTEs (Based on 2013 Actuals)		35	35	35				
57	Total CSR FTEs (SUM Row 54:56)		466.9	454.6	442.4				
59	Change in FTEs C59=(B57-C57) and B59=(B57-D57)			12.2	24.4				
60	Point Change in LOS from Base Year C60=(B46-C46) and D60=(B46-D46)			5.0	10.0				
61	FTEs per 1 point change in LOS (Row 59/ Row 60)			2.4	2.4				

Southern California Gas Company  
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Non-Shared Service Workpapers

CCC Operations 200000.000 Supplemental Workpaper 4  
CEB Recommended Supervisor Ratio



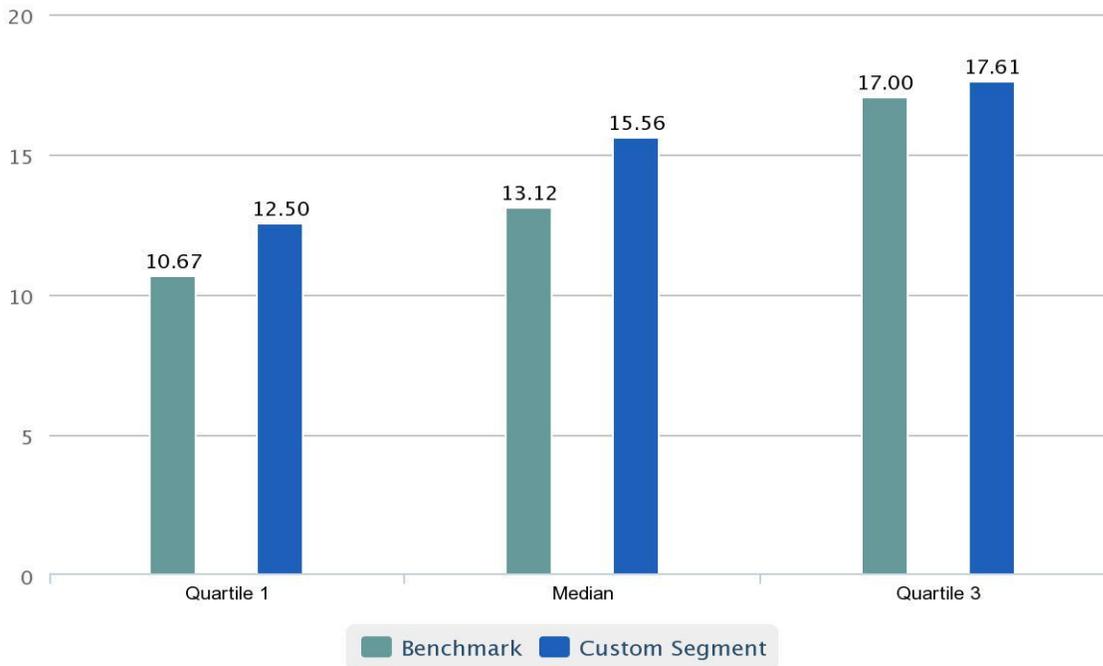
Reps per Supervisor: Reps per Supervisor (Number of Reps) (2010 - 2012)  
Unified Benchmarking Platform

**Reps per Supervisor (Number of Reps) (2010 - 2012)**

*As reported by CEB Customer Contact Productivity Metrics*  
Corporate Executive Board; Customer Contact Leadership Council. (2013)  
Contact Center Benchmarking: 2013 Data Release [Staffing Metrics; Reps per Supervisor; Utilities; 201-500 CSRs].

Benchmark (n = 596)  
Industry (Utilities), Center Size (201-500) (n = 13)

Reps per Supervisor (Number of Reps) (2010 - 2012)	Benchmark	Custom Segment
Quartile 1	10.67	12.50
Median	13.12	15.56
Quartile 3	17.00	17.61



Southern California Gas Company  
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CCC Operations 200000.000 Supplemental Workpaper 5  
CARE

	A	B	C	D
1		<b>No of Calls</b>	<b>AHT (secs)</b>	<b>Total Seconds</b>
2	<b>2015 CSR CARE SignUps Effective 7/1/2015</b>	(a)	(b)	(c) = (a) x (b)
3	2013 Actual CSR Answered Calls & AHT	6,312,561	255	1,609,703,055
4	Average Additional Seconds AHT for CARE Enrollment Offered based on volume of 2013 Turn On Orders calls and 1/2 of 2013 Payment Arrangements for 1/2 year. The additional 63 seconds was calculated based on a sampling of 208 calls from a pilot conducted to test the CARE enrollment script.			
5		632,668	63	39,858,084
6	Overall AHT after CARE Sign Ups based on 2013 Actual Calls <b>C7=(D7 /B7)</b>			
7		6,312,561	261	1,649,561,139
8	Impact on overall AHT for 2015 (Cell C7-C3)			
9			6.3	
10	FTEs per 1 second of overall AHT (See AHT Sensitivity Chart below for details)			
11			1.5	
12	Total Additional FTES for CARE enrollment for 2015 (Row 9 * Row 11)			
13			9.5	
14	Total Labor for Additional FTES (Row 13 * PT Annual Rate \$62.8k)			
15			\$593	
16		<b>No of Calls</b>	<b>AHT (secs)</b>	<b>Total Seconds</b>
17		(a)	(b)	(c) = (a) x (b)
18	<b>2016 CSR CARE SignUps</b>			
19	2013 Actual CSR Answered Calls & AHT	6,312,561	255	1,609,703,055
20	Average Additional Seconds AHT for CARE Enrollment Offered on 2013 Turn On Orders and 1/2 of 2013 Payment Arrangements. The additional 63 seconds was calculated based on a sampling of 208 calls from a pilot conducted to test the CARE enrollment script.			
21		1,265,336	63	79,716,168
22	Overall AHT after CARE Sign Ups based on 2013 Actual Calls <b>C23=(D23/B23)</b>			
23		6,312,561	268	1,689,419,223
24	Impact on overall AHT for 2016 (Cell C23 - C19)			
25			12.6	
26	FTEs per 1 second of overall AHT (See AHT Sensitivity Chart below for details)			
27			1.5	
28	Total Additional FTES for CARE enrollment for 2016 (row 25 * row 27)			
29			18.9	
30	Total Labor for Additional FTES (Row 29 * PT Annual Rate \$62.8k)			
31			1,187	
32				
33				
34	<b>AHT Sensitivity Chart</b>			
35		272.6	265.0	255.0
36	Annual Payroll Hours	2,088	2,088	2,088
37	Customer Service Representative (CSR) Calls Handled Forecast	6,370,219	6,370,219	6,370,219
38	CSR Level of Service Used in Forecast	70%	70%	70%
39	Occupancy (Historical based on 70% CSR LOS)	85.00%	85.00%	85.00%
40	Overall Average Handle Time (AHT)	272.6	265.0	255.0
41	Base FTEs from "Eworkforce" (eWFM) calculated from inputs in rows 37-40	272.5	265.5	256.2
42	Total Shrinkage (Based on 2013 actual)	37.8%	37.8%	37.8%
43	FTEs Required for Shrinkage (Row 44- Row 41)	165.6	161.3	155.7
44	Total FTEs required with Absence & Training Shrinkage (Row 41/(1- Row 42)	438.1	426.8	411.9
45	Less: Set Desk FTEs (2013 Capital FTEs with Shrinkage)	(15.2)	(15.2)	(15.2)
46	CSRs Less Set Desk FTEs (Sum of Row 43 and 44)	422.9	411.6	396.7
47	Add New CSR Training FTEs (Based on 2013 CSR Trainee Hours of 18,360/2088)	8.8	8.8	8.8
48	Add: Lead CSR FTEs (Based on 2013 actuals)	35	35	35
49	Total CSR FTEs (SUM of Row 46:48)	466.7	455.4	440.5
50				
51	Change in FTEs (B49-C49) and C49-D49)		11.3	15.0
52	Change in AHT (B35-C35) and C35-D35)		7.6	10.0
53	FTEs per 1 sec change in AHT (Row 51/Row52)		1.5	1.5

**Beginning of Workpaper**  
**200001.000 - CCC - Support**

Southern California Gas Company  
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Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 2. CCC - Support  
 Workpaper: 200001.000 - CCC - Support

**Activity Description:**

Customer Contact Center (CCC) Support cost center activities include developing CSR call volume forecasts; scheduling part time CSRs; managing LOS real time performance; developing CCC technology strategy and collaborating with Information Technology to ensure the technology supports operations objectives; training and quality assurance; policy and procedures support; planning and analysis functions and clerical functions; conducting outbound dialing courtesy calls to customers for past due balances and confirmation of schedule appointments; responding to customer written request/inquiries; following up on all California Public Utilities Commission (CPUC) telephone referrals and informal and formal CPUC complaints; providing clerical support; conducting data and trend analysis and managing continuous improvement initiatives; and monitoring customer experience across all customer contact channels (CSR, IVR, Web, mobile, etc.) to identify improvement opportunities and ensure channel consistency; IVR and CSR telephone expenses; and annual technology expenses.

**Forecast Explanations:**

**Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project CCC Support O&M costs. The base year is appropriate because 2013 costs reflect some growth in staff for data analysis, continuous improvement and customer experience efforts that support process improvements and continued adoption of self-service. These costs are increasing as customer expectations of service evolve and are not appropriately reflected in historical averages.

**Non-Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project CCC-Support O&M costs. Base year is appropriate because 2013 costs reflect some growth in staff for data analysis, continuous improvement and customer experience efforts that support process improvements and continued adoption of self-service. These costs are increasing as customer expectations of service evolve and are not appropriately reflected in historical averages.

**NSE - Base YR Rec**

NSE is not applicable to this workgroup.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		5,258	5,133	5,157	5,456	6,015	6,153	6,451	6,923	
Non-Labor		2,658	3,968	3,114	3,417	3,175	3,560	3,884	3,458	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>7,916</b>	<b>9,101</b>	<b>8,271</b>	<b>8,873</b>	<b>9,190</b>	<b>9,713</b>	<b>10,335</b>	<b>10,381</b>	
FTE		67.4	66.7	66.8	70.4	76.2	77.6	80.7	86.7	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
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Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 2. CCC - Support  
Workpaper: 200001.000 - CCC - Support

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	6,015	6,015	6,015	138	436	908	6,153	6,451	6,923
Non-Labor	Base YR Rec	3,175	3,175	3,175	385	709	283	3,560	3,884	3,458
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>9,190</b>	<b>9,190</b>	<b>9,190</b>	<b>523</b>	<b>1,145</b>	<b>1,191</b>	<b>9,713</b>	<b>10,335</b>	<b>10,381</b>
FTE	Base YR Rec	76.2	76.2	76.2	1.4	4.5	10.5	77.6	80.7	86.7

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	52	1	0	53	0.5	1-Sided Adj

IVR Team Lead position to support and manage the IVR will be added in mid 2014. Full year staffing for the IVR Team Lead is \$104K in Labor, so the mid 2014 hire will result in \$52K in Labor and .5 FTEs. 2013 Non-labor average per employee is \$1.3K. (52K in Labor, 1K in Non-Labor and .5 FTE)

2014	0	144	0	144	0.0	1-Sided Adj
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Upgrade CCC technologies that are several versions behind - Aspect eWFM - \$109K and Nexidia \$35K. (144K in Non-Labor)

2014	0	250	0	250	0.0	1-Sided Adj
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Training - Develop systematic approach for updating online help and syncing with training; Benchmark current training practices against industry "best practices" \$80K; Quality Assurance - Implement the NICE/Merced "Coach the Coach" program and utilize supervisors to increase coaching and mentoring opportunities for agents; Benchmark current QA practices against industry "best practices" - \$170K; (250K in Non-Labor)

2014	86	1	0	87	0.9	1-Sided Adj
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2013 Base year numbers reflect 4.5 months of Sr Business Analyst position (\$39K in Labor and 0.4 FTEs) and 6 months of a Customer Experience Advisor (\$41K and .5 FTEs). The Customer Experience Advisor returned to the group in March of 2014. An adjustment of \$86K and .9 FTEs has been made to reflect full year staffing levels in forecast years. (86K in Labor, 1K in Non-Labor and .9 FTE)

2014	0	-46	0	-46	0.0	1-Sided Adj
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*Note: Totals may include rounding differences.*

Southern California Gas Company  
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Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 2. CCC - Support  
 Workpaper: 200001.000 - CCC - Support

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
Decrease in telecommunications carrier costs due to a reduction of a backup telephone line that is no longer required. This decrease is offset by impacts from higher call volumes and changes to AHT. See telecommunications calculation in supplemental work papers (-46K in Non-Labor)						
2014	0	35	0	35	0.0	1-Sided Adj
Incremental ClickFox maintenance/hosting fees. ClickFox is utilized by IVR, Web, and Customer Experience teams to identify opportunities for improvement. (\$35K in Non-Labor)						
<b>2014 Total</b>	<b>138</b>	<b>385</b>	<b>0</b>	<b>523</b>	<b>1.4</b>	

2015	0	351	0	351	0.0	1-Sided Adj
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Upgrade CCC technologies that are several versions behind - The Customer Contact Center Call Recording Systems are aging and nearing the end of manufacturer support. Scope of the project will be to replace or refresh the current Customer Contact Center Call Recording systems using technology that will benefit the Company for the future. \$468K - 75% (351K Non Labor) SoCalGas, SDGE share of costs are represented in SDGE workpapers and not represented in SoCalGas GRC request. (351K in Non-Labor)

2015	240	4	0	244	3.0	1-Sided Adj
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3 Customer Relations Specialists to the Special Investigations Team that will respond to/vet escalated traditional media complaints, conduct trending analysis on escalated calls to CCC supervision, customer relations and social media and on direct customer feedback channels (customer surveys, email). Develop & recommend procedure/policy/process changes based on customer feedback channels and multi-channel escalations. Eff 1/2015. \$80k per customer relations specialists x 3 + avg non-labor of \$1.3k per FTE. (240K in Labor, 4K in Non-Labor and 3.0 FTEs)

2015	0	210	0	210	0.0	1-Sided Adj
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Adding the Chat channel to respond to the customers questions from socialgas.com and MyAccount, including training costs and set up fee. (90 concurrent agent seats @ \$15.4K per month x 12 mos + One time set up and training costs = \$25K) (\$210K in Non-Labor)

2015	144	3	0	147	2.0	1-Sided Adj
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2 Quality Assurance specialists to increase the volume of calls monitored toward the industry standard of .75 - 1%. 72K per specialist x 2 + avg non-labor of \$1.3K per FTE. (144K Labor, 3K in Non-Labor and 2.0 FTE)

2015	106	1	0	107	1.1	1-Sided Adj
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Note: Totals may include rounding differences.

Southern California Gas Company  
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Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 2. CCC - Support  
Workpaper: 200001.000 - CCC - Support

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2013 Base year numbers reflect 4.5 months of Sr Business Analyst position (\$39k in Labor and 0.4 FTEs) and 6 months of a Customer Experience Advisor (\$41k and .5 FTEs). An adjustment of \$106k and 1.1 FTES has been made to reflect full year staffing levels in forecast years. (106K in Labor, 1K in Non-Labor and 1.1 FTE)						
2015	0	-32	0	-32	0.0	1-Sided Adj
Net impact of a decrease in telecommunications carrier costs due to a reduction of a backup telephone line that is no longer required, offset by an increase in telecommunications costs from higher call volumes and changes to AHT. See telecommunications calculation in supplemental work papers (-32K in Non-Labor)						
2015	0	50	0	50	0.0	1-Sided Adj
Automate compliance portion of Quality Observation reporting using NICE/Nexidia. (\$50K Non-Labor)						
2015	186	3	0	189	2.0	1-Sided Adj
IVR Team Lead position to support and manage the IVR will be added in mid 2014 and IVR Analyst position will be added 1/2015. (\$104K annual ) + (\$82K annual) + avg non-labor of \$1.3K per FTE. (186K in Labor, 3K in Non-Labor and 2.0 FTE)						
2015	0	75	0	75	0.0	1-Sided Adj
Additional NICE Licenses for call recording-. \$100K x .75 (SoCalGas portion of costs) SDGE share of costs are represented in SDGE workpapers and not represented in SoCalGas GRC request. (\$75K in Non-labor)						
2015	0	35	0	35	0.0	1-Sided Adj
Incremental ClickFox maintenance/hosting fees. ClickFox is utilized by IVR, Web, and Customer Experience teams to identify opportunities for improvement. (\$35K in Non-Labor)						
2015	-240	-5	0	-245	-3.6	1-Sided Adj
Workforce reductions due to automating Outbound Dialing (OBD) process - effective 1/1/15.						
Lead OBD Clerk 0.85 FTE x \$73.4K = \$62K, Full Time OBD Clerk 1.81 FTEs x \$64K = \$115.9K, Part Time OBD Clerk 0.96 FTE x \$64.7K = \$62K, + avg non-labor of \$1.3K per FTE. (-240K in Labor with -5K in Non-Labor and -3.6 FTEs)						
2015	0	14	0	14	0.0	1-Sided Adj

Note: Totals may include rounding differences.

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 Category-Sub: 2. CCC - Support  
 Workpaper: 200001.000 - CCC - Support

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>
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Telecommunications increase for additional AHT to allow CSRs to sign customers up for CARE, eff 7/1/15. (Will be offset by amount approved in Low Income Filing) 632,668 calls @ 1.05 mins (63 additional secs) AHT x \$.021 per minute. See telecommunications supplemental work paper for details. (14K in Non-Labor)\*SoCalGas is also requesting funding for CSR CARE enrollment costs in the Low Income Application filing due Q4 2014. If funding is approved as part of the CARE application, update testimony will be filed to remove the funding request from this GRC application.

<b>2015 Total</b>	<b>436</b>	<b>709</b>	<b>0</b>	<b>1,145</b>	<b>4.5</b>	
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2016	186	3	0	189	2.0	1-Sided Adj
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IVR Team Lead position to support and manage the IVR will be added in mid 2014 and IVR Analyst position will be added 1/2015. (\$104K annual ) + (\$82K annual) + avg non-labor of \$1.3K per FTE. (\$186K in Labor, \$3K in Non-Labor and 2.0 FTE) See CCC Support 200001.000 Supplemental Workpaper 1 IVR Doctors for support.

2016	560	9	0	569	7.0	1-Sided Adj
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Add 7 Customer Relations Specialists to the Special Investigations Team that will respond to/vet escalated traditional media complaints, conduct trending analysis on escalated calls to CCC supervision, customer relations and social media and on direct customer feedback channels (customer surveys, email). Develop & recommend procedure/policy/process changes based on customer feedback channels and multi-channel escalations. Added 3 positions 1/2015 and 4 positions 1/2016. \$80K per customer relations specialists x 7 + avg non-labor of \$1.3K per FTE. For FTE breakdown see CCC Support 200001.000 Supplemental Workpaper 2 Special Investigations Team (\$560K in Labor, \$9K in Non-Labor and 7.0 FTEs)

2016	0	185	0	185	0.0	1-Sided Adj
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Adding the Chat channel to respond to the customers questions from SCG.com and MyAccount. 90 concurrent agent seats @ \$15.4K per month x 12 mos. See CCC Support 200001.000 Supplemental Workpaper 3 Row 5 for details. (\$185K in Non-Labor)

2016	296	5	0	301	4.0	1-Sided Adj
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3 Quality Assurance specialists to increase the volume of calls monitored toward the industry standard of .75 - 1%. 2 - Eff 1/2015, 1 Eff 1/2016; 1 Quality Assurance Supervisor to manage the group eff 1/2016. \$72K per QA specialist x 3 + 1 Supervisor @ \$80K+ avg non-labor of \$1.3K per FTE (\$296K Labor, \$5K in Non-Labor with 4.0 FTEs).

2016	106	1	0	107	1.1	1-Sided Adj
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Note: Totals may include rounding differences.

Southern California Gas Company  
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Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 2. CCC - Support  
 Workpaper: 200001.000 - CCC - Support

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>
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2013 Base year numbers reflect 4.5 months of Sr Business Analyst position (\$39K in Labor and 0.4 FTEs) and 6 months of a Customer Experience Advisor (\$41K and .5 FTEs). An adjustment of \$106K and 1.1 FTES has been made to reflect full year staffing levels in forecast years. (\$106K in Labor, \$1K in Non-Labor and 1.1 FTE)

2016	0	22	0	22	0.0	1-Sided Adj
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Net impact of a decrease in telecommunications carrier costs due to a reduction of a backup telephone line that is no longer required, offset by an increase in telecommunications costs from higher call volumes and changes to AHT. See telecommunications calculation in supplemental work papers(\$22K in Non-Labor) See CCC Support 200001.000 Supplemental Workpaper 4 Row 13 for details.

2016	0	35	0	35	0.0	1-Sided Adj
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Incremental ClickFox maintenance/hosting fees. ClickFox is utilized by IVR, Web, and Customer Experience teams to identify opportunities for improvement. This amount is based on the actual incremental licenses purchased in 2014. (\$35K in Non-Labor)

2016	-240	-5	0	-245	-3.6	1-Sided Adj
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Workforce reductions due to automating Outbound Dialing (OBD) process - effective 1/1/15.

Lead OBD Clerk 0.85 FTE x \$73.4K = \$62K,  
 Full Time OBD Clerk 1.81 FTEs x \$64K = \$115.9K,  
 Part Time OBD Clerk 0.96 FTE x \$64.7K = \$62K,  
 + avg non-labor of \$1.3K per FTE.

See CCC Support 200001.000 Supplemental Workpaper 5 Row 7 for details (-240K in Labor with -5K in Non-Labor and -3.6 FTEs)

2016	0	28	0	28	0.0	1-Sided Adj
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Telecommunications increase for additional AHT to allow CSRs to sign customers up for CARE, eff 7/1/15. (Will be offset by amount approved in Low Income Filing) 1,265,336 calls @ 1.05 mins (63 additional secs) AHT x \$.021 per minute. (\$28K in Non-Labor) See CCC Support 200001.000 Supplemental Workpaper 4 Row 19 for details.

<b>2016 Total</b>	<b>908</b>	<b>283</b>	<b>0</b>	<b>1,191</b>	<b>10.5</b>	
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Note: Totals may include rounding differences.

Southern California Gas Company  
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Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
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Workpaper: 200001.000 - CCC - Support

**Determination of Adjusted-Recorded (Incurred Costs):**

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	4,302	4,410	4,412	4,665	5,206
Non-Labor	2,869	3,463	2,765	3,561	3,262
NSE	0	0	0	0	0
<b>Total</b>	<b>7,171</b>	<b>7,873</b>	<b>7,178</b>	<b>8,226</b>	<b>8,468</b>
FTE	61.2	61.9	59.4	61.2	65.7
<b>Adjustments (Nominal \$) **</b>					
Labor	-258	-341	-189	-73	-48
Non-Labor	-470	208	229	-203	-87
NSE	0	0	0	0	0
<b>Total</b>	<b>-728</b>	<b>-132</b>	<b>40</b>	<b>-276</b>	<b>-135</b>
FTE	-4.5	-5.4	-2.3	-0.8	-0.5
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	4,045	4,069	4,223	4,592	5,158
Non-Labor	2,399	3,672	2,995	3,358	3,175
NSE	0	0	0	0	0
<b>Total</b>	<b>6,444</b>	<b>7,741</b>	<b>7,218</b>	<b>7,950</b>	<b>8,333</b>
FTE	56.7	56.5	57.1	60.4	65.2
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	726	708	701	735	857
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>726</b>	<b>708</b>	<b>701</b>	<b>735</b>	<b>857</b>
FTE	10.7	10.2	9.8	10.0	11.0
<b>Escalation to 2013\$</b>					
Labor	487	356	233	128	0
Non-Labor	259	296	119	59	0
NSE	0	0	0	0	0
<b>Total</b>	<b>746</b>	<b>652</b>	<b>352</b>	<b>187</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	5,258	5,133	5,157	5,456	6,015
Non-Labor	2,658	3,968	3,114	3,417	3,175
NSE	0	0	0	0	0
<b>Total</b>	<b>7,916</b>	<b>9,101</b>	<b>8,271</b>	<b>8,873</b>	<b>9,190</b>
FTE	67.4	66.7	66.9	70.4	76.2

\* 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  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 2. CCC - Support  
 Workpaper: 200001.000 - CCC - Support

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-258	-341	-189	-73	-48
Non-Labor	-470	208	229	-203	-87
NSE	0	0	0	0	0
<b>Total</b>	<b>-728</b>	<b>-132</b>	<b>40</b>	<b>-276</b>	<b>-135</b>
FTE	-4.5	-5.4	-2.3	-0.8	-0.5

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
2009	0	34	0	0.0	CCTR Transf	From 2100-0019.000	CSCHRAMM2013 1107223742667
Transfer costs associated with software maintenance (Kana) charged to SCG billing internal order 7037650 from cost center 2100-0019 in work group 100007 SDG&E CCC Support to SCG cost center 2200-0404 in work group 200001 SCG CCC Support where activity resides.							
2009	182	0	0	0.9	CCTR Transf	From 2100-3510.000	CSCHRAMM2013 1121182148840
Transfer costs associated with SCG Customer Contact Center (CCC) Director from cost center 2100-3510 in work group 100007 SDG&E CCC Support to SCG cost center 2200-0401 in work group 200001 SCG CCC Support where activity resides.							
2009	0	-533	0	0.0	1-Sided Adj	N/A	RMCHRIST20131 104124430520
Exclude 2009 Katz patent infringement settlement charges from cost center 2200-0404, CCC-Support workpaper group 200001.							
2009	-252	0	0	-3.0	CCTR Transf	To 2200-2395.000	RMCHRIST20131 106101639003
CCC Tech team transferred from cost center 2200-0404 in work group 200001 CCC-Support to cost center 2200-2395 in work group 21T002 Information Technology.							
2009	-6	0	0	0.0	CCTR Transf	To 2200-2395.000	RMCHRIST20131 106101827450
CCC Tech team transferred from 200001 in CCC-Support to 21T002 in Information Technology. For salary lump sum.							
2009	-70	0	0	-0.9	CCTR Transf	To 2200-0331.000	RMCHRIST20131 106102756210
Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-0165 in work group CCC-Support 200001 to cost center 2200-0331 in work group 200006 as part of the 2013 Budget Planning consolidation.							

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 2. CCC - Support  
 Workpaper: 200001.000 - CCC - Support

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From Cctr</u>	<u>RefID</u>
2009	-112	0	0	-1.5	CCTR Transf	To 2200-2028.000	RMCHRIST20131 106105302940
2 Billing Trainers transferred from cost center 2200-0344 in CCC-Support work group 200001 to cost center 2200-2028 in Billing work group 200003.							
2009	0	29	0	0.0	CCTR Transf	To 2100-0019.000	RMCHRIST20131 112082722763
Transfer costs associated with software ,computer maintenance charged to SDG&E billing internal order 300589479 from cost center 2200-0404 in work group 200001 SCG Support to SDG&E cost center 2100-0019 in work group 100007 SDG&E CCC Support where activity resides.							
<b>2009 Total</b>	<b>-258</b>	<b>-470</b>	<b>0</b>	<b>-4.5</b>			
2010	0	303	0	0.0	CCTR Transf	From 2100-0019.000	CSCHRAMM2013 1107223849000
Transfer costs associated with software maintenance (Kana, Nexidia) charged to SCG billing internal order 7037650 from cost center 2100-0019 in work group 100007 SDG&E CCC Support to SCG cost center 2200-0404 in work group 200001 SCG CCC Support where activity resides. .							
2010	181	0	0	0.9	CCTR Transf	From 2100-3510.000	CSCHRAMM2013 1121182235890
Transfer costs associated with SCG Customer Contact Center (CCC) Director from cost center 2100-3510 in work group 100007 SDG&E CCC Support to SCG cost center 2200-0401 in work group 200001 SCG CCC Support where activity resides.							
2010	-353	0	0	-4.1	CCTR Transf	To 2200-2395.000	RMCHRIST20131 106102033993
CCC Tech team transferred from cost center 2200-0404 in work group 200001 CCC-Support to cost center 2200-2395 in work group 21T002 Information Technology.							
2010	-71	0	0	-0.9	CCTR Transf	To 2200-0331.000	RMCHRIST20131 106103124530
Budget Planner transferred in 2013.This Budget Planner was transferred from cost center 2200-0165 in work group CCC-Support 200001 to cost center 2200-0331 in work group 200006 as part of the 2013 Budget Planning consolidation.							
2010	-97	0	0	-1.3	CCTR Transf	To 2200-2028.000	RMCHRIST20131 106105513543
2 Billing Trainers transferred from cost center 2200-0344 in CCC-Support work group 200001 to cost center 2200-2028 in Billing work group 200003.							

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 2. CCC - Support  
Workpaper: 200001.000 - CCC - Support

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From Cctr</u>	<u>RefID</u>
2010	0	-94	0	0.0	CCTR Transf	To 2100-0019.000	RMCHRIST201311111508593
Transfer costs associated with software, computer maintenance charged to SDG&E billing internal order 300589479 from cost center 2200-0404 in work group 200001 SCG CCC Support to SDG&E cost center 2100-0019 in work group 100007 SDG&E CCC Support where activity resides.							

<b>2010 Total</b>	<b>-341</b>	<b>208</b>	<b>0</b>	<b>-5.4</b>			
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2011	0	261	0	0.0	CCTR Transf	From 2100-0019.000	CSCHRAMM20131107224215740
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Transfer costs associated with software, computer maintenance (Kana, Nexidia, NARC, Avaya, and Nice) charged to SCG billing internal order 7054940 from cost center 2100-0019 in work group 100007 SDG&E CCC Support to SCG cost center 2200-0404 in work group 200001 SCG CCC Support where activity resides.

2011	10	0	0	0.1	CCTR Transf	From 2100-3510.000	CSCHRAMM20131121182349287
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Transfer costs associated with SCG Customer Contact Center (CCC) Director from cost center 2100-3510 in work group 100007 SDG&E CCC Support to SCG cost center 2200-0401 in work group 200001 SCG CCC Support where activity resides.

2011	-127	0	0	-1.5	CCTR Transf	To 2200-2395.000	RMCHRIST20131106102205580
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CCC Tech team transferred from cost center 2200-0404 in work group 200001 CCC-Support to cost center 2200-2395 in work group 21T002 Information Technology.

2011	-72	0	0	-0.9	CCTR Transf	To 2200-0331.000	RMCHRIST20131106103248243
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Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-0165 in work group CCC-Support 200001 to cost center 2200-0331 in work group 200006 as part of the 2013 Budget Planning consolidation.

2011	0	-56	0	0.0	CCTR Transf	From 2200-2094.000	RMCHRIST20131108090818207
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Clickfox consulting fee in support of CCC Self-Service project

2011	0	56	0	0.0	1-Sided Adj	N/A	RMCHRIST20131108123350880
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From Cost center 2200-2094 in work paper group 200006 for Click fox. Total transfer is reflected correctly in both cost center as a transfer from 2200-2094 to 2200-0404

2011	0	-32	0	0.0	CCTR Transf	To 2100-0019.000	RMCHRIST2013111111548373
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Transfer costs associated with software, computer maintenance charged to SDG&E billing internal order 300589479 from cost center 2200-0404 in work group 200001 SCG CCC Support to SDG&E cost center 2100-0019 in work group 100007 SDG&E CCC Support where activity resides.

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
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Category: A. Customer Service Office Operations  
Category-Sub: 2. CCC - Support  
Workpaper: 200001.000 - CCC - Support

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2011 Total</b>	<b>-189</b>	<b>229</b>	<b>0</b>	<b>-2.3</b>			
2012	-73	0	0	-0.8	CCTR Transf	To 2200-0331.000	RMCHRIST20131 106103427060
							Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-0165 in work group CCC-Support 200001 to cost center 2200-0331 in work group 200006 as part of the 2013 Budget Planning consolidation.
2012	0	-100	0	0.0	1-Sided Adj	N/A	RMCHRIST20131 118094632680
							Exclude Legal Settlement paid in 2012
2012	0	-103	0	0.0	1-Sided Adj	N/A	RMCHRIST20140 515203019067
							This adjustment is to move a prorated portion of the Oracle Right Now Software Fee from 2012 to 2013. The fee was represented on two invoices; one invoice for \$111,690 + a second invoice for \$25,282 = \$136,972 total amount invoiced, divided by the 11/20/12 – 4/1/14 period of 16 months = \$8,561 per month x 12 months of 2013 = \$102,726.
<b>2012 Total</b>	<b>-73</b>	<b>-203</b>	<b>0</b>	<b>-0.8</b>			
2013	-48	0	0	-0.5	CCTR Transf	To 2200-0331.000	RMCHRIST20140 210135245937
							Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-0165 in work group CCC-Support 200001 to cost center 2200-0331 in work group 200006 as part of the 2013 Budget Planning consolidation.
2013	0	-43	0	0.0	CCTR Transf	To 2100-0019.000	RMCHRIST20140 210135428873
							Transfer SDG&E portion of Aspect Expense from cost center 2200-0404 in work group 200001 CCC-Support to cost center 2100-0119 in work group 100007 CCC-Support SDG&E.
2013	0	147	0	0.0	CCTR Transf	To 2200-2094.000	RMCHRIST20140 221092850977
							Incorrect transfer of 147K in consulting fees dedicated to customer capital program management from cost center 2200-2094 in work group 200006 Other Office Ops and Tech to cost center 2200-2408 in work group 200001 CCC-Support. Offsetting transfer was made to correctly show a total transfer of 147K in Non Labor from cost center 2200-2408 in work group 200001 CCC-Support to cost center 2200-2094 in work group 200006 Other Office Ops and Tech.

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
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Area: CS - OFFICE OPERATIONS  
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 Category-Sub: 2. CCC - Support  
 Workpaper: 200001.000 - CCC - Support

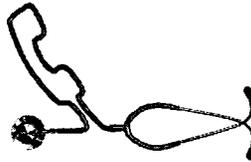
<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
2013	0	-294	0	0.0	CCTR Transf	To 2200-2094.000	RMCHRIST20140 221093245037
<p>Adjustment to reverse consulting fees incorrectly added to 2200-2408 and transfer over 147K in fees to work paper group 200006. Offsetting transfer was made to correctly show a total transfer of 147K in Non Labor from cost center 2200-2408 in work group 200001 CCC-Support to cost center 2200-2094 in work group 200006 Other Office Ops and Tech.</p>							
2013	0	103	0	0.0	1-Sided Adj	N/A	RMCHRIST20140 515203325947
<p>This adjustment is to move a prorated portion of the Oracle Right Now Software Fee from 2012 to 2013. The fee was represented on two invoices; one invoice for \$111,690 + a second invoice for \$25,282 = \$136,972 total amount invoiced, divided by the 11/20/12 – 4/1/14 period of 16 months = \$8,561 per month x 12 months of 2013 = \$102,726.</p>							
<b>2013 Total</b>	<b>-48</b>	<b>-87</b>	<b>0</b>	<b>-0.5</b>			

Note: Totals may include rounding differences.

**Supplemental Workpapers for Workpaper 200001.000**

**MARKETSTRATEGIES**  
INTERNATIONAL

## **IVR DOCTORS**



# **2014 Energy Utility IVR Benchmark Report**

**May, 2014**

## IVR Doctors

### EXECUTIVE SUMMARY

#### AGAIN, WE'VE RATED 100 COMPANIES IN 2014

We have maintained the number of energy utilities in the benchmark this year: 100 companies across the U.S. and Canada. This 2014 Report evaluates: **50** electric-only, **29** combination, and **21** gas-only utilities; and includes **13** Canadian utilities.

The energy companies in the Report represent:

- **68** Touchtone-only systems
- **32** systems with speech in some fashion

While a few companies have moved away from "speech-only" or "speech-dominant" modalities, callers in our IVR Usability Tests support the emerging consumer 'mental model' that "press or say" - available *interchangeably, throughout* the call - will be the best-in-class future of automated phone systems in most industries. Speech-dominant systems in the energy utility industry - especially natural language systems (which we don't evaluate), are a "leap too far" in our view, given the public safety nature of this industry and the technical foibles of speech recognition. However, speech addresses the issue of "rotary gas leak" or "rotary wiredown" callers, since rotary callers can speak their response for these emergency commands, and not wait for a timeout - hardly priority - or worse yet, being told to hang up and dial another number "just for them."

#### WE FOCUS ON MENUS BEING "CLEAR, CONCISE, MUTUALLY-EXCLUSIVE, AND ALL-INCLUSIVE."

We have maintained our focus on *clear, concise, mutually-exclusive, and all-inclusive menu options and call flows*. In our customized, onsite IVR Workshops, we stress this "mantra" as the most critical, overarching design requirement in a highly company-efficient and customer-friendly automated phone system.

The potential point value for each of these measures make them the highest "point potential" elements in Usability. This comports with their correlation to system success and caller acceptance and use. In addition, having menus that are stable over time permits "mental mapping" of your system by repeat callers. This aids self-service use, as well.

#### WE TEACH BASED ON WHAT WE OBSERVE - REAL CALLERS REACTING TO IVRS.

One difference with our practice and others is that our menu and call flow teachings do not exist in some isolated vacuum of academic or consulting hypotheses. Rather, our client's menus and call flows have, most often, been subjected to rigorous IVR Usability Testing - with actual, recent callers to each utility. As a result, our menu and call flow consulting continues to evolve, as technology and callers' acceptance of automated phone systems has changed over time. For example, there is a greater acceptance of "press or say" use in the last 3-5 years, as such systems have improved.

**System success is most strongly predicted by having "clear, concise, mutually-exclusive, and all-inclusive" menus that are stable over time.**

**Our time-tested principles have been proven by customer testing and reported results. Self-service utilization and caller satisfaction are mutually *inclusive* goals.**

## IVR Doctors

### MALE OR FEMALE SYSTEM VOICE - WHICH IS MOST PREFERRED OR "BETTER" TO USE?

We are often asked "What's the 'right' gender for the IVR voice?" and whether callers have a gender preference. A solid majority (**69%**) of the IVRs in this year's Report have a "**primary**" female voice - that is, the original greeting voice and primary voice throughout the system is female. (A number of systems have some sub-menu or sub-system, such as power problems or energy efficiency, in a voice of the opposite gender.)

However, that **69%**, above, does not "prove" a female voice is "best" or "more preferred." Callers tell us in our specialized IVR Usability Tests and IVR Focus Groups (not simply "typical focus groups about IVRs") that they don't have a gender preference, *per se*, but that **it's the pace, tone, and diction of the system voice that matter, which can have a direct effect on system use.** Some older customers say that high-pitched voices can be problematic to understand - especially so for those with hearing aids.

### CAN AESTHETICS HELP OR HINDER USABILITY?

While Aesthetics represent only 20% of our evaluation, since this industry is not truly competitive - hence, callers can't leave your company because of the persona of your system - good system aesthetics can aid system usability. For example, there should be a discernible pause, of at least 0.5 seconds, after each menu option, and at least 1.0 second after a menu and before any system navigation (e.g., "For all other matters, press 5 or say OTHER.", then a **pause** of at least 1.0 second before "To repeat these options, press X or say REPEAT."). If not, we've observed that callers will stop, even if ready to make a choice, because they started to hear something. In addition, a menu-ending catch-all option delivered distinctly helps keep callers in the system.

### TROUBLING ISSUES THAT WE'LL CONTINUE TO MONITOR

We take note of some small, but troubling, issues:

- **Early account ID** - requested, attempted or applied too early (ANI is fine from the outset, just don't interrupt the call flow with a default-prone process too early in the call). Early account ID makes the call more about the company than the caller. Find out what the call is about, then route the call accordingly, passing along any caller intelligence gained from account ID, but only as necessary.
- **"Intelligent" call routing** - presumptively routing calls on the basis of past call experience sounds customer sensitive, but it's really almost always just an excuse to capture a collections customer.
- **Customized menus** - often in concert with intelligent call routing, presenting "customized menus" for callers is a big mistake, and can mean skipping options or presenting different menus to different callers, or even the same caller over time. This defeats the benefit of "mental mapping" of consistently presented menus.
- **Emergency call clarity and transit time may delay "emergency" call types** - We have noticed the clarity of menu options and the transit time to clear and unambiguous electric (e.g., downed electric wire) or gas emergencies (e.g., gas leak or odor) are a concern. Indeed, the word "emergency" is ambiguous and can lead to callers accidentally or intentionally abusing the option, merely to reach a rep. For example, for some callers, any electric outage is an emergency. For all callers, these options mean, 'I can reach a live person.' The more the menus are not clear, concise and mutually exclusive, the more pressure they put on "emergency" call queues.
- **Dropping Start, Stop, Move from the Main Menu** - While we saw this creep into menus in 2012, there are many more systems in 2014 that have done this. These calls often account for ~10-15% of all calls to an IVR and, if not mentioned on the Main Menu, leave callers to guess which option to choose. Without in-transit callers hearing words they are listening for, zero is the likely choice.

## IVR Doctors

### Congratulations to JEA - the Top Overall Rated IVR.

We start by recognizing the # 1 company in our Overall Ratings - JEA of Jacksonville, FL (formerly Jacksonville Electric Authority). They have come a long way in a short time, and have now seen a +10% increase in self-service utilization\* - with strong caller satisfaction numbers - from implementing best-in-class menu and call flow design characteristics. (\*Source: 2013 ICMI presentation)

The IVR Doctors award achievement recognition "Gold Stethoscopes" to companies in 13 categories:

- **Top rated IVR overall:** JEA
- **Top U.S. combination utility:** LG&E
- **Top U.S. Electric-only:** JEA
- **Top U.S. Gas-only:** SoCal Gas ("The Gas Company")
- **Top Municipal Utility:** JEA
  
- **Top Canadian utility:** Hydro One
- **Top Canadian Electric-only:** Hydro One
- **Top Canadian Gas-only:** Union Gas
  
- **Top "Touchtone-only" system:** JEA
- **Top "Press or say" system:** SoCal Gas
  
- **Tops in Functionality:** SoCal Gas
- **Tops in Usability:** JEA
- **Tops in Aesthetics:** JEA



Another signal achievement is our recognition of companies with "Balanced IVRs" - that is, they have achieved **Top Quartile ratings in all key categories: Functionality, Usability and Aesthetics!** The companies with balanced IVRs, with several new additions this year, are (alphabetically):

- **Alabama Power & Georgia Power (Southern Company)**
- **Ameren Illinois & Ameren Missouri**
- **Black Hills Energy, Black Hills Power, & Cheyenne Light, Fuel & Power**
- **DTE Energy**
- **Hydro One**
- **JEA**
- **Kentucky Utilities - ODP & LG&E**
- **Pacific Power & Rocky Mountain Power (PacifiCorp)**
- **PPL Electric Utilities**
- **SoCal Gas ("The Gas Company")**
- **Union Gas**

**There are 17 companies that achieve the significant goal of being in the Top Quartile in Functionality, Usability and Aesthetics in 2014.**

## IVR Doctors

### THE 2014 REPORT'S TOP QUARTILE COMPANIES IN OVERALL RATINGS

We are pleased to announce the 2014 Top Quartile companies in Overall Ratings - see page 8. The Overall Rating for each company combines each company's scores for Functionality, Usability and Aesthetics. **This year, JEA once again achieves top honors, for the 2nd year in a row!**

We are familiar with many of the Top Quartile systems from work and benchmarking over the years. The attributes that all of our Overall Top Quartile companies share in common are:

- ✓ Clear, concise, mutually-exclusive and all-inclusive menus.
- ✓ Caller/customer-friendly designations for available functions.
- ✓ Superior navigation and user friendliness.
- ✓ Solid, technically sound aesthetics and a professional tone.
- ✓ A willingness to deconstruct and reconstruct menus and/or applications from time-to-time (while maintaining long-term consistency and resisting 'knee-jerk' menu changes).
- ✓ A keen understanding of bringing real callers into the design loop - without over-reacting to typical comments like "put a zero option at the top of every menu," or "in every menu."

For those companies who made minor or no changes in the last 12 months, there is continued pressure from the competitive set. In general, we see continued movement to implement and maintain the best-in-class characteristics, although many utilities continue to make simple errors (e.g., having few or no navigational commands or making seemingly minor menu tweaks that may not have the desired results).

In addition, points were awarded in the 2014 Report for systems having a (an):

- ✓ Residential and commercial split, so that commercial calls can be counted and perhaps routed uniquely, or set up for future enhanced treatment. Such a split allows for a language option to follow, appropriately. *Note* - Points were deducted if the commercial option comes before the residential option, given the significantly higher volume of residential calls; or if a Res-Bus split occurs only down certain call paths.
- ✓ Dual, interchangeable modality ("press or say" or "say or press") throughout the menus.
- ✓ Website assistance option.
- ✓ Energy Efficiency/Conservation/Products & Services/Programs category.
- ✓ Option to check or change an existing appointment.
- ✓ "I don't know" option for account ID (to allow for a secondary protocol or transfer).
- ✓ Swift throughput times for gas leaks and downed wires.

Deductions that were added or expanded in the 2014 Report include losing points for having:

- ✓ Account ID before a sub-menu specifying Power Problems or Billing and Payment matters. (We increased the penalty for these in 2014.)
- ✓ Poorly worded error messaging. (We test defaults for "typical errors" a caller might make.)
- ✓ A language option (typically Spanish) that *all* callers *must hear* regardless of their language preference, which we call "passive English."

**IVR Doctors**

**Overall Top Quartile Ratings**

<b>Company</b>	<b>Overall Rating</b>
JEA	259.2
SoCal Gas (The Gas Company)	244.8
Kentucky Utilities & Old Dominion Power	244.1
LG&E	238.9
BGE	234.6
Hydro One	233.7
Cheyenne Light, Fuel & Power	228.6
Union Gas	226.3
PPL Electric Utilities	226.0
Pacific Power & Rocky Mountain Power	225.5
DTE Energy	223.7
Black Hills Power	221.1
Black Hills Energy	219.7
Ameren Illinois	218.9
Georgia Power	216.1
Ameren Missouri	208.7
Alabama Power	207.5
Green Mountain Power	205.0
Consumers Energy	203.1
FPL	196.9
Peoples Natural Gas (formerly Equitable Gas)	195.2
ComEd	194.0
Duquesne Light	181.1
NV Energy - South	174.6
Southern California Edison	171.0

## IVR Doctors

### **ENERGY UTILITIES ARE STILL FUNCTIONALITY RICH AND USABILITY POOR.**

The energy utility industry continues its annual theme of being “functionality rich, usability poor” when it comes to its automated phone systems. That is, while the reasons customers call their utilities (i.e., Functionality) are adequately to well represented in the menus - as they should be, the critical “user friendliness” component still is lacking.

However, we are seeing some positive trends – most notably, the adoption or at least the attempt to provide *clear, concise, mutually-exclusive, and all-inclusive menu options and call flows, the most critical elements of successful menu construction*. The goal should be menus – not including navigation – of no more than approximately 50 words and five options - and, generally, *at least* four options, otherwise, we consider a menu to be “underutilized.” Usability testing shows significant increases in “task failures” for role plays where the IVR system exceeds the 50 word-five option limits.

The broad categories of utility service call types tend to be: 1) power and/or gas problems, 2) billing and payment matters (which should always be combined at the Main Menu and split apart at the 2nd level sub-menu), 3) start, stop or move and (new) construction-related issues, and 4) all other matters. In good IVR menu design, going from the generic to the specific is key to quick user acceptance and use.

### **SPEECH RECOGNITION MAY BE PART OF THE ANSWER, BUT IT IS NOT THE ANSWER.**

We continue to see utilities that have moved to speech-only systems continue to have hiccups. And while there is no strong customer mental model, yet, that speech is *the* answer to all of their navigation problems, let's be honest: even the best speech systems still have voice recognition issues. We are confident in saying that **speech as part of the solution (i.e., interchangeable “press or say” options throughout = a good thing) will be the long-term best-in-class standard in all industries for some time**. We continue to believe that speech is not an essential part of today's best technological solution – particularly in this industry, with public safety requiring 100% accuracy and zero fault tolerance – but that it should be on the intermediate to long-term planning horizon for all companies, in all industries.

Speech recognition consideration and/or adoption continues to be on the top of all our clients' agendas, with speech vendors pushing (hard) to deploy “speech-only” systems. Consumers, on the other hand, strongly indicate their preference for “press or say” interchangeably throughout their calls. Major banks, and some utilities, that went down the “speech-only” path have moved to “press or say” (or worst case, back to touchtone only), which we believe will continue to be a positive trend, despite some speech vendors' reluctance to support a DTMF/touchtone component. Remember, these vendors work for you!

### **ACCOUNT ID USE SHOULD COME JUST PRIOR TO GIVING THE INFORMATION CALLERS SEEK, AND SHOULD ONLY BE REQUESTED WHEN NECESSARY, AND NOT AUTOMATICALLY.**

Account identification (Account ID) continues to be an important legal and regulatory issue, and one of the most significant points of self-service call completion failure. Our view, from watching real callers, is:

- 1) Account ID, while possibly captured at the front of a call, should only be used just before customer-specific information is going to be provided.
- 2) Not all calls require account ID (e.g., streetlight reports, payment locations, mailing address, program information, downed wires not associated with an account's specific street address), so why even ask callers to identify themselves? Disruptive/non-intuitive ID protocols work against IVR success.
- 3) Account ID protocols need to be customer-tested or at least more customer-centric in how information is requested, and what the fallbacks are, if initial identification fails. For example, outage calls should request area code and phone number; billing and payments should request account number; and each should fallback to the other upon two failures.

	A	B	C	D	E	F	G	H	I
2		Volume*	Average Time (mins)**	Total Time (mins)	Hours	Unloaded FTEs 2088 hours/year	V&S Factor	Total FTEs	
3	Service Recovery Calls	15,000	15	225,000	3750.00	1.79597701	1.169	2.10	
4	CES/CCT Analysis	79,000	3.75	296,250	4937.50	2.36470307	1.169	2.76	
5	Escalation Analysis	10,000	15	150,000	2500.00	1.19731801	1.169	1.40	
6	Social Media Responses	781	60	46,860	781.00	0.37404215	1.169	0.44	
7	Executive Office Support	268	120	32,160	536.00	0.25670498	1.169	0.30	
8	<b>Totals</b>	<b>105,049</b>	<b>214</b>	<b>750,270</b>	<b>12,505</b>	<b>5.99</b>		<b>7.00</b>	
9	*Volumes based on 2013 numbers and 1st Qtr 2014 trends								
10	**Times based on 2014 Observations								
11									
12	Service Recovery Calls – 15 Minutes Average (professional estimate based on baseline data below)								
13	a. Time is based on average length of call for Lead and Supervisor escalated calls. (From Merced Data) b. This contact has not been done before at SCG, therefore the selected contact types are based on the closest type available. c. Volume (15,000 – Professional Estimate) - Service Recovery Calls - 2,500 from low QA score (based on 2013 reviewed calls), 5,000 from CES Feedback (based on bottom two boxes CES scoring, from 2013 data), 5,500 from CCT (based on 2013 data), 2500 from escalated calls (based on YDT 2014 and 2013 escalated volume of ~ 31,000 in the CCC )								
14									
15	CES/CCT Analysis- 3.75 Minute Average (based on data below)								
16	a. Time for supervisor to review and analyze feedback based on CES ‘Hot Alert’ issued – based on time-in-motion study (apprx 3.4 to 4 mins) b. Estimated per-item review time for CCT. This is based on the average time required for a Lead to review and assign a CCT for resolution. This is new work, however, and times are estimated. c. Additional insight on CCT analysis is conducted at .05 per hour, which is approximately 3 minutes. d. Volume (79,000) – Total volume of CES Surveys Issued + CCTs issued in 2013 (Total Volume is rounded from approx. 50K CCTs, and 29K CES Surveys – based on historical data)								
17									
18	Escalated Calls Analysis- 15 Minutes Average (based on data below)								
19	a. Review of recorded calls/screens – Average 900 seconds per call/escalation – includes base customer call – (From Merced Data) b. Analysis of documentation of interaction (CIS Records, CCT issued, Escalated tracking) – no Time in Motion Study complete yet (new work) – (Professional Estimate) c. Development of solutions/recommendations/trending based on data input – work not done prior- (Professional Estimate) d Volume- Assumes 1 in 10 escalations, CCT, and CES feedback points require further analysis/process improvement. (Professional estimate)								
20									
21	Social Media Responses- 60 Minutes Average (based on data below)								
22	a. Calculated average current response time by CCC to customer specific social media inquiry (2014) b. Volume – 781 – Total Non-Emergency Customer Specific Inquiries 2013 (actual)								
23									
24	Executive Office Support- 120 Minutes to respond (based on data below)								
25	a. 120 minutes is current estimated individual processing time (‘touch time’) to handle Executive Complaints (executive letters, emails, calls). Work is being completed by management/supervision, so there are frequent interruptions. b. Process includes the following- Customer account history and research of all recent interactions via multiple channels; Specific customer issue/inquiry – follow up with impacted organizations (field, billing, etc.); Customer interaction to resolve issue and enter resolution into system; and								
26	Documentation and reporting of escalated issue / summary for executive report.								

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CCC Support 200001.000 Supplemental Workpaper 3

Chat Estimate

	A	B	C	D
1	<b>SoCalGas Chat</b>			
2	SoCalGas estimate based on contact volume being approximately 3x higher than SDGE			
3		SDGE	SCG	SCG Annual
4		(a)	(b) = (a) x 3	(c) = (b) x 12 months
5	Monthly Cost for 30 concurrent agent seats, supporting interactive chats	\$5,133	\$15,399	<b>\$184,788</b>
6				
7				
8	Start up Fee (One Time)	\$8,400	<b>\$25,200</b>	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1		Average Cost Per Offered Call		\$ 0.1601										
2		Abandoned Rate		5.4%										
3		Average Cost per Minute		\$ 0.021										
4														
5		2013 AHT	255		Advertising*	\$ 44,000		2013 Telco	1,651,375					
6					*Total costs for publishing Phone information Phone Book/Yellow Pages)									
7					Language Line	\$ 57,000								
8														
9			Operations 200000.000 Supplemental Workpaper 1-1 for detail	5.4% Abandoned Rate in 2013	Column C + Column D	Operations 200000.000 Supplemental Workpaper 1-1 for detail	Column E + Column F	Column G * D1	F5+F7	(Column B-C5)* Column C* (D3/60 seconds)	SUM (Column H:J)	Column K-15	See Care Telco Chart Column G	Column L-Column M
10		Overall AHT	CSR Call Volume	CSR Calls Abandoned	CSR Offered = CSR Call Volume + Abandoned Calls	IVR Calls	Total Offered	Total Telco for Call Volume at 255 AHT	Language Line & Advertising	Telco for increase in AHT from 2013	Total Telco without CARE	Total Delta from 2013 Actual Telco	Less CARE Telco	Delta from 2013 Actual less CARE Telco
11	2014	255	6,144,627	347,696	6,492,323	2,901,656	9,393,979	\$ 1,503,976	101,000	\$0	\$ 1,604,976	-\$46,399	\$0	-\$46,399
12	2015	265	6,093,803	344,821	6,438,624	3,009,975	9,449,939	\$ 1,512,935	101,000	\$19,889	\$ 1,633,824	-\$17,551	\$13,950	-\$31,501
13	2016	273	6,370,219	360,462	6,730,681	3,030,523	9,760,460	\$ 1,562,650	101,000	\$38,182	\$ 1,701,831	\$50,456	\$27,901	\$22,555
14														
15		**CARE Telco - 63 additional average seconds per call						**For CARE AHT calculation See CCC Operations 200000.000 Supplemental Workpaper 5						
17	Year	Additonal Seconds AHT	Additonal Mins AHT per Call	Calls Offered CARE Enrollment	Cost Per Additional Minute	Additional Telco for CARE= D*E*F								
18	2015	63	1.05	632,668	\$ 0.021	\$ 13,950								
19	2016	63	1.05	1,265,336	\$ 0.021	\$ 27,901								

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CCC Support 200001.000 Workpaper 5  
 OBD Summary

	A	B	C	D
1	<b>SCG Labor Reduction For Automating OBD Calls</b>			
2				
3	Position	FTEs based on 2013 actuals	Hrly Rate	Total Labor = FTEs*Hrly Rate*2088 hours
4	Lead OBD Clk-5	0.85	35.15	\$62,033
5	Full Time OBD Clerk-3	1.81	30.64	\$115,900
6	Part Time OBD Clerk-3	0.96	30.99	\$62,111
7		<b>3.62</b>		<b>\$240,044</b>

**Beginning of Workpaper**  
**200002.000 - Branch Offices**

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 3. Branch Offices  
 Workpaper: 200002.000 - Branch Offices

**Activity Description:**

Labor and non-labor costs associated with Branch Office and Authorized Pay Location expenses, covering the cost of providing payment collection and other services to those customers who prefer to make payments, place service requests, and seek information in person.

**Forecast Explanations:**

**Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Branch Office O&M costs. This method is appropriate because the base year reflects estimated costs to sustain branch office operations at current service levels. Although branch office transaction volumes are declining at some locations, branch offices are staffed at optimal levels to provide service during current operating hours, and labor costs are not projected to decline. The majority of non-labor expenses are also fixed and not sensitive to transaction volume reductions.

**Non-Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Branch Office O&M costs. This method is appropriate because the base year reflects estimated costs to sustain branch office operations at current service levels. Although branch office transaction volumes are declining at some locations, branch offices are staffed at optimal levels to provide service during current operating hours, and labor costs are not projected to decline. The majority of non-labor expenses are also fixed and not sensitive to transaction volume reductions.

**NSE - Base YR Rec**

NSE is not applicable to this workgroup.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		8,378	8,656	8,412	8,291	8,404	8,404	8,404	8,404	
Non-Labor		2,740	2,661	2,925	2,733	2,535	2,535	2,535	2,535	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>11,119</b>	<b>11,317</b>	<b>11,338</b>	<b>11,024</b>	<b>10,939</b>	<b>10,939</b>	<b>10,939</b>	<b>10,939</b>	
FTE		129.2	131.4	128.7	127.1	128.7	128.7	128.7	128.7	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 3. Branch Offices  
 Workpaper: 200002.000 - Branch Offices

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	8,404	8,404	8,404	0	0	0	8,404	8,404	8,404
Non-Labor	Base YR Rec	2,535	2,535	2,535	0	0	0	2,535	2,535	2,535
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>10,939</b>	<b>10,939</b>	<b>10,939</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10,939</b>	<b>10,939</b>	<b>10,939</b>
FTE	Base YR Rec	128.7	128.7	128.7	0.0	0.0	0.0	128.7	128.7	128.7

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 3. Branch Offices  
Workpaper: 200002.000 - Branch Offices

**Determination of Adjusted-Recorded (Incurred Costs):**

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	6,438	6,858	6,889	6,979	7,206
Non-Labor	2,473	2,462	2,813	2,686	2,535
NSE	0	0	0	0	0
<b>Total</b>	<b>8,912</b>	<b>9,320</b>	<b>9,702</b>	<b>9,665</b>	<b>9,741</b>
FTE	108.6	111.3	109.9	109.0	110.1
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	6,438	6,858	6,889	6,979	7,206
Non-Labor	2,473	2,462	2,813	2,686	2,535
NSE	0	0	0	0	0
<b>Total</b>	<b>8,912</b>	<b>9,320</b>	<b>9,702</b>	<b>9,665</b>	<b>9,741</b>
FTE	108.6	111.3	109.9	109.0	110.1
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	1,163	1,199	1,144	1,117	1,198
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>1,163</b>	<b>1,199</b>	<b>1,144</b>	<b>1,117</b>	<b>1,198</b>
FTE	20.5	20.1	18.8	18.1	18.6
<b>Escalation to 2013\$</b>					
Labor	777	600	379	195	0
Non-Labor	267	199	112	47	0
NSE	0	0	0	0	0
<b>Total</b>	<b>1,044</b>	<b>799</b>	<b>491</b>	<b>242</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	8,378	8,656	8,412	8,291	8,404
Non-Labor	2,740	2,661	2,925	2,733	2,535
NSE	0	0	0	0	0
<b>Total</b>	<b>11,119</b>	<b>11,317</b>	<b>11,338</b>	<b>11,024</b>	<b>10,939</b>
FTE	129.1	131.4	128.7	127.1	128.7

\* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 3. Branch Offices  
 Workpaper: 200002.000 - Branch Offices

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2009 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2010 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2011 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2012 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**200003.000 - Billing Services**

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 4. Billing Services  
 Workpaper: 200003.000 - Billing Services

**Activity Description:**

Billing Services is responsible for calculating bills and maintaining accurate customer account information. Billing Services at SoCalGas consists of two distinct organizations: (1) billing for residential and small commercial and industrial customers (“Mass Market Billing”); and (2) billing for large commercial and industrial customers (“Major Market Billing”). Customer billing expenses cover the cost of calculating customers’ bills and maintaining accurate customer account information. The department is responsible for following up on customer account inquiries and reviewing suspicious transactions identified by our CIS system.

**Forecast Explanations:**

**Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Billing O&M costs. This method is most appropriate because the base year reflects the full impact of reductions in labor costs resulting from technology and process improvements implemented throughout the 2009-2012 historical period and fully realized in 2013.

**Non-Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Billing O&M costs. This method is most appropriate because the base year reflects the full impact of reductions in labor costs resulting from technology and process improvements implemented throughout the 2009-2012 historical period and fully realized in 2013.

**NSE - Base YR Rec**

NSE is not applicable to this workgroup.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		8,084	7,792	7,427	7,303	6,834	7,063	7,099	7,144	
Non-Labor		97	106	169	118	98	98	98	98	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>8,180</b>	<b>7,898</b>	<b>7,597</b>	<b>7,421</b>	<b>6,932</b>	<b>7,161</b>	<b>7,197</b>	<b>7,242</b>	
FTE		102.6	99.3	93.6	90.2	83.4	86.4	86.8	87.4	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 4. Billing Services  
 Workpaper: 200003.000 - Billing Services

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	6,834	6,834	6,834	229	265	310	7,063	7,099	7,144
Non-Labor	Base YR Rec	98	98	98	0	0	0	98	98	98
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>6,932</b>	<b>6,932</b>	<b>6,932</b>	<b>229</b>	<b>265</b>	<b>310</b>	<b>7,161</b>	<b>7,197</b>	<b>7,242</b>
FTE	Base YR Rec	83.4	83.4	83.4	3.0	3.4	4.0	86.4	86.8	87.4

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	27	0	0	27	0.4	1-Sided Adj

Meter Growth. New residential/small commercial and industrial business account set ups will lead to additional reads that will fail edit parameters. 2013 avg manual exceptions per meter (.212) was used to project additional work volume. See supplemental work paper for calculations. (\$27K Labor and .4 FTE)

2014	116	0	0	116	1.5	1-Sided Adj
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Additional labor to reduce and maintain the size of the billing exception backlog at 2012 levels. An additional 25,066 backlog items were created in 2013. The rate of completion per FTE is 19,515/ yr. See supplemental work paper for exception backlog calculations. (\$116K in Labor and 1.5 FTEs)

2014	86	0	0	86	1.1	1-Sided Adj
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2013 Base year numbers reflect approximately 10 months of an Advisor's salary (\$65K in Labor and .8FTE). An adjustment of \$13K in Labor dollars and .1 FTE has been made to reflect full year staffing levels in forecast years. 2013 Base year numbers reflect approximately 6 months of an Analyst's and Billing Analyst's salary (\$68K in Labor and 1.0 FTE). An adjustment of \$73K in Labor dollars and 1.0 FTE has been made to reflect full year staffing levels in forecast years. (\$86K in Labor and 1.1 FTE)

<b>2014 Total</b>	<b>229</b>	<b>0</b>	<b>0</b>	<b>229</b>	<b>3.0</b>	
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2015	63	0	0	63	0.8	1-Sided Adj
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Meter Growth. New residential/small commercial and industrial business account set ups will lead to additional reads that will fail edit parameters. 2013 avg manual exceptions per meter (.212) was used to project additional work volume. See supplemental work paper for calculations. (\$63K in Labor with .8FTE)

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 4. Billing Services  
 Workpaper: 200003.000 - Billing Services

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2015	116	0	0	116	1.5	1-Sided Adj

Additional labor to reduce and maintain the size of the billing exception backlog at 2012 levels. An additional 25,066 backlog items were created in 2013. The rate of completion per FTE is 19,515/ yr. See supplemental work paper for exception backlog calculations. (\$116K in Labor and 1.5 FTEs)

2015	86	0	0	86	1.1	1-Sided Adj
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2013 Base year numbers reflect approximately 10 months of an Advisor's salary (\$65K in Labor and .8FTE). An adjustment of \$13K in Labor dollars and .1 FTE has been made to reflect full year staffing levels in forecast years. 2013 Base year numbers reflect approximately 6 months of an Analyst's and Billing Analyst's salary (\$68K in Labor and 1.0 FTE). An adjustment of \$73K in Labor dollars and 1.0 FTE has been made to reflect full year staffing levels in forecast years. (\$86K in Labor and 1.1 FTE)

<b>2015 Total</b>	<b>265</b>	<b>0</b>	<b>0</b>	<b>265</b>	<b>3.4</b>	
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2016	108	0	0	108	1.4	1-Sided Adj
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New residential/small commercial and industrial business account set up associated with meter growth will lead to additional reads that will failing edit parameters. 2013 avg per meter used to project additional work volume. See Billing 200003.000 Supplemental Workpaper 1 Column E for details. (108K Labor and 1.4 FTE)

2016	116	0	0	116	1.5	1-Sided Adj
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Additional labor to reduce and maintain the size of the billing exception backlog at 2012 levels. An additional 25,066 backlogs were created in 2013. The rate of completion per FTE is 19,515/ yr. See Billing 200003.000 Supplemental Workpaper 2 for details. (\$116K in Labor and 1.5 FTEs)

2016	86	0	0	86	1.1	1-Sided Adj
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2013 Base year numbers reflect approximately 10 months of an Advisor's salary (\$65K in Labor and .8FTE). An adjustment of \$13K in Labor dollars and .1 FTE has been made to reflect full year staffing levels in forecast years. 2013 Base year numbers reflect approximately 6 months of an Analyst's and Billing Analyst's salary (\$68K in Labor and 1.0 FTE). An adjustment of \$73K in Labor dollars and 1.0 FTE has been made to reflect full year staffing levels in forecast years. (86K in Labor and 1.1 FTE)

<b>2016 Total</b>	<b>310</b>	<b>0</b>	<b>0</b>	<b>310</b>	<b>4.0</b>	
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Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 4. Billing Services  
Workpaper: 200003.000 - Billing Services

**Determination of Adjusted-Recorded (Incurred Costs):**

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	6,100	6,076	6,082	6,148	5,803
Non-Labor	87	98	219	258	98
NSE	0	0	0	0	0
<b>Total</b>	<b>6,187</b>	<b>6,174</b>	<b>6,301</b>	<b>6,405</b>	<b>5,902</b>
FTE	84.8	82.8	80.0	77.3	70.7
<b>Adjustments (Nominal \$) **</b>					
Labor	112	97	0	0	57
Non-Labor	0	0	-56	-142	0
NSE	0	0	0	0	0
<b>Total</b>	<b>112</b>	<b>97</b>	<b>-56</b>	<b>-142</b>	<b>57</b>
FTE	1.5	1.3	0.0	0.0	0.7
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	6,212	6,173	6,082	6,148	5,860
Non-Labor	87	98	163	116	98
NSE	0	0	0	0	0
<b>Total</b>	<b>6,299</b>	<b>6,271</b>	<b>6,245</b>	<b>6,263</b>	<b>5,958</b>
FTE	86.3	84.1	80.0	77.3	71.4
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	1,122	1,079	1,010	984	974
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>1,122</b>	<b>1,079</b>	<b>1,010</b>	<b>984</b>	<b>974</b>
FTE	16.3	15.2	13.7	12.8	12.1
<b>Escalation to 2013\$</b>					
Labor	749	540	335	172	0
Non-Labor	9	8	6	2	0
NSE	0	0	0	0	0
<b>Total</b>	<b>759</b>	<b>548</b>	<b>341</b>	<b>174</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	8,084	7,792	7,427	7,303	6,834
Non-Labor	97	106	169	118	98
NSE	0	0	0	0	0
<b>Total</b>	<b>8,180</b>	<b>7,898</b>	<b>7,597</b>	<b>7,421</b>	<b>6,932</b>
FTE	102.6	99.3	93.7	90.1	83.5

\* 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  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 4. Billing Services  
 Workpaper: 200003.000 - Billing Services

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	112	97	0	0	57
Non-Labor	0	0	-56	-142	0
NSE	0	0	0	0	0
<b>Total</b>	<b>112</b>	<b>97</b>	<b>-56</b>	<b>-142</b>	<b>57</b>
FTE	1.5	1.3	0.0	0.0	0.7

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
2009	112	0	0	1.5	CCTR Transf	From 2200-0344.000	RMCHRIST20131 106105302940
2 Billing Trainers transferred from cost center 2200-0344 in CCC-Support work group 200001 to cost center 2200-2028 in Billing work group 200003.							
<b>2009 Total</b>	<b>112</b>	<b>0</b>	<b>0</b>	<b>1.5</b>			
2010	97	0	0	1.3	CCTR Transf	From 2200-0344.000	RMCHRIST20131 106105513543
2 Billing Trainers transferred from cost center 2200-0344 in CCC-Support work group 200001 to cost center 2200-2028 in Billing work group 200003.							
<b>2010 Total</b>	<b>97</b>	<b>0</b>	<b>0</b>	<b>1.3</b>			
2011	0	-51	0	0.0	1-Sided Adj	N/A	RMCHRIST20131 203162349923
Removal of Unplanned Temp Agency Cost (Billing Automation expense + Admin support). Cst center 2200-2028.							
2011	0	-5	0	0.0	1-Sided Adj	N/A	RMCHRIST20131 203162515107
Marketing and Advertising cost for Bill redesign focus group. One time expense for special project.							
<b>2011 Total</b>	<b>0</b>	<b>-56</b>	<b>0</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

Southern California Gas Company  
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Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 4. Billing Services  
 Workpaper: 200003.000 - Billing Services

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From Cctr</u>	<u>RefID</u>
2012	0	-142	0	0.0	1-Sided Adj	N/A	RMCHRIST20131 203162125680
Removal of Unplanned Temp Agency Cost (Billing Automation expense + Admin support).							

<b>2012 Total</b>	<b>0</b>	<b>-142</b>	<b>0</b>	<b>0.0</b>			
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2013	57	0	0	0.7	1-Sided Adj	N/A	RMCHRIST20140 217095212220
Adjustment to add AMI benefit reductions into 2013 recorded expenses in order to reflect the business without advanced meter impacts. Since advanced meter related costs and benefits are recorded in the Advanced Meter Balancing Account (AMIBA) for this GRC period, historical expenses are being adjusted to reflect costs without advanced meter benefits.							

<b>2013 Total</b>	<b>57</b>	<b>0</b>	<b>0</b>	<b>0.7</b>			
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Note: Totals may include rounding differences.

**Supplemental Workpapers for Workpaper 200003.000**

Southern California Gas Company  
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Non-Shared Service Workpapers

Billing 200003.000 Supplemental Workpaper 1  
Manual Exceptions Due to Meter Growth

	A	B	C	D	E
4	1) In 2013, 5,606,113 active meter counts created 1,190,323 manual exceptions				
7	2) Manual transactions per additional meter is calculated below				
8		(1190323/5606113)	=	0.212325907	
10	3) Incremental meter count in 2014-2016 is shown below				
11	<b>Incremental Volume Due to Meter Growth</b>				
12			<b>2014</b>	<b>2015</b>	<b>2016</b>
13	Incremental meter count from previous year - based on meter growth forecasts		25,227	35,791	42,172
14	Incremental exceptions from previous year based on 2013 rate of .212325907 exceptions per meter		5,357	7,600	8,955
15	Incremental raw FTEs required from previous year based on 2013 productivity rate of 19,515 annual completed transactions		0.27	0.39	0.46
17	Apply V&S factor of 0.169 to calculate raw FTE requirement to get actual incremental FTE requirement		0.32	0.46	0.54
18	Cumulative FTE requirement above base year		0.32	0.78	1.31
28	Total Labor Dollars		<b>\$27,026</b>	<b>\$63,061</b>	<b>\$108,104</b>

Billing 200003.000 Supplemental Workpaper 2

Billing Exceptions Backlog

	A	B	C	D	E	F	G	H	I	J	K	L	M
1													
2	The 2013 Billing Exceptions Backlog is calculated by taking the difference of Jan and Dec backlog exceptions.												
3													
4	1) In January 2013 the Billing Exceptions backlog was 59,857 and by the end of 2013 they grew to 84,923, increasing by 25,066.												
5	2) Rate of transaction per FTE in a year is 19515 (Based on 2013)												
6	3) $25066/19515 = 1.284$												
7	4) $1.284*(1.169 \text{ V\&S factor}) = 1.5 \text{ FTEs}$												
8	5) <b>1.5 FTEs * 77,063 = \$115,594 per forecast year</b>												

**Beginning of Workpaper**  
**200004.000 - Credit and Collections**

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 5. Credit & Collections  
 Workpaper: 200004.000 - Credit and Collections

**Activity Description:**

Credit and collections expenses include the cost of establishing and implementing policies and procedures to ensure authorized collections-related tariff rules are followed and collection activity is effectively performed.

**Forecast Explanations:**

**Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Office Credit and Collections O&M costs. 2013 represents the most recent recorded labor and non-labor costs. Adjustments for full year staffing and investments to support operational efficiency were added to the base year to represent forecasted expenses in the test year.

**Non-Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Office Credit and Collections O&M costs. 2013 represents the most recent recorded labor and non-labor costs. Adjustments for temporary vacancies and investments to support operational efficiency were added to the base year to represent forecasted expenses in the test year. The non-labor expenses primarily consist of collection agency fees and credit reporting agency fees.

**NSE - Base YR Rec**

NSE is not applicable to this workgroup.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		3,218	2,924	2,911	2,928	2,863	2,980	2,980	2,980	
Non-Labor		1,030	963	1,123	875	1,073	1,170	1,259	1,271	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>4,248</b>	<b>3,887</b>	<b>4,034</b>	<b>3,802</b>	<b>3,936</b>	<b>4,150</b>	<b>4,239</b>	<b>4,251</b>	
FTE		42.3	38.2	38.8	38.4	37.2	38.8	38.8	38.8	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
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Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 5. Credit & Collections  
Workpaper: 200004.000 - Credit and Collections

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	2,863	2,863	2,863	117	117	117	2,980	2,980	2,980
Non-Labor	Base YR Rec	1,073	1,073	1,073	97	186	198	1,170	1,259	1,271
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>3,936</b>	<b>3,936</b>	<b>3,936</b>	<b>214</b>	<b>303</b>	<b>315</b>	<b>4,150</b>	<b>4,239</b>	<b>4,251</b>
FTE	Base YR Rec	37.2	37.2	37.2	1.6	1.6	1.6	38.8	38.8	38.8

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	25	0	0	25	0.3	1-Sided Adj

2013 Base year numbers include 8 months of Project Specialist salary (\$51K in Labor and .7FTE). An adjustment of \$25K in Labor dollars and .3 FTE has been made to reflect full year staffing levels in forecast years. (\$25K in Labor and .3 FTE)

2014	92	0	0	92	1.3	1-Sided Adj
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2013 Base year numbers include 21 months of 3 Collections Clerk salaries (\$128K in Labor and 1.75FTE). An adjustment of \$92K in Labor dollars and 1.25 FTE has been made to reflect full year staffing levels in forecast years. (\$92K in Labor and 1.25 FTE)

2014	0	97	0	97	0.0	1-Sided Adj
------	---	----	---	----	-----	-------------

Implement automated closing bill reminder calls - Phase 2 Release 1 of Collections Optimization Capital Project. (\$34K annually for vendor's fees to perform outbound closing bill reminder calls) (\$17K for mid-2014 implementation plus \$10K one-time setup fee)

Implement Collections Risk Management Software to interface with collection agencies - Phase 2 Release 2 of Collections Optimization Capital Project. (\$70K partial one-time implementation cost in 2014)  
(\$97K in Non-labor)

<b>2014 Total</b>	<b>117</b>	<b>97</b>	<b>0</b>	<b>214</b>	<b>1.6</b>	
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2015	25	0	0	25	0.3	1-Sided Adj
------	----	---	---	----	-----	-------------

2013 Base year numbers include 8 months of Project Specialist salary (\$51K in Labor and .7FTE). An adjustment of \$25K in Labor dollars and .3 FTE has been made to reflect full year staffing levels in forecast years. (\$25K in Labor and .3 FTE)

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 5. Credit & Collections  
 Workpaper: 200004.000 - Credit and Collections

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2015	92	0	0	92	1.3	1-Sided Adj

2013 Base year numbers include 21 months of 3 Collections Clerk salaries (\$128K in Labor and 1.75 FTEs). An adjustment of \$92K in Labor dollars and 1.25 FTEs has been made to reflect full year staffing levels in forecast years. (\$92K in Labor and 1.25 FTE)

2015	0	186	0	186	0.0	1-Sided Adj
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Carry over from 2014. (full year effect) Implement automated closing bill reminder calls - Phase 2 Release 1 of Collections Optimization Capital Project. (\$34K annually for vendor's fees to perform outbound closing bill reminder calls)

Carry over from 2014

Implement Collections Risk Management Software license costs to interface with collection agencies - Phase 2 Release 2 of Collections Optimization Capital Project. (\$117K beginning Q2 2015 plus \$30K remaining one-time implementation cost in 2015)

Implement 2nd Level ID Validation w/ additional customer information and 3rd Level ID Validation w/ Challenge Questions for new customer Turn-On's as forms of authentications - Phase 3 Release 1 of Collections Optimization Capital Project. Approximately \$8K in annual vendor's fees for challenge questions with a mid 2015 implementation. (\$4K in 2015)

(\$186K in Non-Labor)

<b>2015 Total</b>	<b>117</b>	<b>186</b>	<b>0</b>	<b>303</b>	<b>1.6</b>	
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2016	25	0	0	25	0.3	1-Sided Adj
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2013 Base year numbers include 8 months of Project Specialist salary (\$51K in Labor and .7FTE). An adjustment of \$25K in Labor dollars and .3 FTE has been made to reflect full year staffing levels in forecast years. (\$25K in Labor and .3 FTE). This adjustment combines with a \$92K adjustment for partial year staffing of a three Collections Clerks to equal a total adjustment of \$117K and 1.6 FTEs.

2016	92	0	0	92	1.3	1-Sided Adj
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2013 Base year numbers include 21 months of 3 Collections Clerk salaries (\$128K in Labor and 1.75FTE). An adjustment of \$92K in Labor dollars and 1.25 FTE has been made to reflect full year staffing levels in forecast years. (\$92K in Labor and 1.25 FTE) This adjustment combines with a \$25K adjustment for partial year staffing of a Project Specialist to equal a total adjustment of \$117K and 1.6 FTEs.

2016	0	198	0	198	0.0	1-Sided Adj
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Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 5. Credit & Collections  
 Workpaper: 200004.000 - Credit and Collections

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
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Carry over from 2014. (full year effect) Implement automated closing bill reminder calls - Phase 2 Release 1 of Collections Optimization Capital Project. (\$34K annually) See Credit and Collections 200004.000 Supplemental Workpaper 2 Cell C26.

Carry over from 2014. (full year effect)  
 Implement Collections Risk Management Software license costs to interface with collection agencies - Phase 2 Release 2 of Collections Optimization Capital Project. (\$156K annually) See Credit and Collections 200004.000 Supplemental Workpaper 2 Row 40 for detail.

Carry over from 2015. (full year effect)  
 Implement 2nd Level ID Validation w/ additional customer information and 3rd Level ID Validation w/ Challenge Questions for new customer Turn-On's as forms of authentications - Phase 3 Release 1 of Collections Optimization Capital Project. Approximately \$8K in annual vendor's fees for challenge questions (\$8K in 2016) See Credit and Collections 200004.000 Supplemental Workpaper 2 Row 60 for detail.

<b>2016 Total</b>	<b>117</b>	<b>198</b>	<b>0</b>	<b>315</b>	<b>1.6</b>	
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*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 5. Credit & Collections  
Workpaper: 200004.000 - Credit and Collections

**Determination of Adjusted-Recorded (Incurred Costs):**

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	2,473	2,317	2,384	2,464	2,455
Non-Labor	930	891	1,080	860	1,073
NSE	0	0	0	0	0
<b>Total</b>	<b>3,402</b>	<b>3,208</b>	<b>3,464</b>	<b>3,324</b>	<b>3,528</b>
FTE	35.6	32.3	33.1	32.9	31.8
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	2,473	2,317	2,384	2,464	2,455
Non-Labor	930	891	1,080	860	1,073
NSE	0	0	0	0	0
<b>Total</b>	<b>3,402</b>	<b>3,208</b>	<b>3,464</b>	<b>3,324</b>	<b>3,528</b>
FTE	35.6	32.3	33.1	32.9	31.8
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	447	405	396	395	408
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>447</b>	<b>405</b>	<b>396</b>	<b>395</b>	<b>408</b>
FTE	6.7	5.8	5.7	5.5	5.4
<b>Escalation to 2013\$</b>					
Labor	298	203	131	69	0
Non-Labor	100	72	43	15	0
NSE	0	0	0	0	0
<b>Total</b>	<b>399</b>	<b>275</b>	<b>174</b>	<b>84</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	3,218	2,924	2,911	2,928	2,863
Non-Labor	1,030	963	1,123	875	1,073
NSE	0	0	0	0	0
<b>Total</b>	<b>4,248</b>	<b>3,887</b>	<b>4,034</b>	<b>3,802</b>	<b>3,936</b>
FTE	42.3	38.1	38.8	38.4	37.2

\* 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  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 5. Credit & Collections  
 Workpaper: 200004.000 - Credit and Collections

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2009 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2010 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2011 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2012 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Supplemental Workpapers for Workpaper 200004.000**

Credit and Collections 200004.000 Supplemental Workpaper 1  
FACTA Description

FACTA is the Fair and Accurate Credit Transactions Act of 2003. The Act covers various credit related items like getting a free credit report once every 12 months, reducing identity theft, and requires the secure disposal of customer information/data.

FACTA impacts the steps we take when a customer starts service at SCG, since they are opening a gas account and therefore extending credit in their name.

**Turn-On Request**

- A. If a customer has not been a previous customer, or they were a previous customer but have not been validated/identified in the last two years:
  - 1. SCG requests the Social Security Number and Name from the customer
  - 2. SCG then sends the Social Security Number and Name to a credit bureau (Experian) to
    - a) validate the customer, b) insure there has been no fraudulent activity for this customer, c) see if a deposit is required based on the utility credit score
    - i. If the customer information is not matched with the credit bureau or there is fraudulent activity for this customer a TURN-ON order can NOT be scheduled
      - a. The Customer must identify themselves by providing two forms of government issued identification at 1) a branch office in person, or 2) faxing their identification to Mass Markets Collections.
      - b. After the customer has been validated the turn-on order can be completed and scheduled.

Credit and Collections 200004.000 Supplemental Workpaper 1  
FACTA Description

B. If a customer refuses to provide their social security number:

1. The Customer must identify themselves by providing two forms of government issued identification at 1) a branch office in person, or 2) faxing their identification to Mass Markets Collections.
2. After the customer has been identified the turn-on order can be completed and scheduled
3. A deposit is required

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Credit and Collections 200004.000 Supplemental Workpaper 2  
Costs Supporting Collections Optimization Phases 2 and 3

	A	B	C	D	E	F	G	H	I
2	<b>Closing Bill Reminder Calls (Project #14875 Collections Optimization Phase 2 Release 1)</b>								
3	Leverage automated calls to remind customers that their closing bill is due and offer routing to BillMatrix for immediate payment.								
4									
5	Data Source(s) & Calculation Notes:								
6	E07P37 reports from January through December 2013								
7									
8	1st Reminder								
9	Month/Year		Volume						
9	Jan-13		19,445		Jul-13		21,506		
10	Feb-13		22,634		Aug-13		23,126		
11	Mar-13		24,510		Sep-13		23,037		
12	Apr-13		20,980		Oct-13		22,141		
13	May-13		21,778		Nov-13		20,156		
14	Jun-13		20,608		Dec-13		19,624		
15									
16	Totals		259,545						
17	Averages		21,629						
18									
19	For Business Case, assume that third party vendor makes automated phone calls to 60% of 1st Reminder Call customers;								
20	this allows for 40% who either pay prior to call or for whom we don't have valid (landline) telephone number.								
21	Calculated, 60% of monthly average volume of 21,629 = 12,977; this equates to \$2,855.00 per month @ \$0.22/call								
22									
23	60% of Avg		12,977						
24	Cost per Call \$		0.22		based on 2013 actual				
25	Total \$ per month \$		2,855						
26	<b>Total \$ per year \$</b>		<b>34,260</b>		<b>plus one-time initial Service Setup Fee of \$10,000.00 in the first year of implementation</b>				
27									
28									
29									
30	<b>Collections Risk Management Software (Project # 14875 Collections Optimization Phase 2 Release 2)</b>								
31	The Collections Risk Management Software would be a hosted software solution designed to increase the scope and accuracy of								
32	information available to SCG related to collection agency activities, performance and compliance.								
33									
34	Vendor implementation and monthly service fees based on information received in Request for Information (RFI)								
35									
36	<b>RFI Response</b>								
37	Monthly Software Subscription		\$12,500/month includes licensing and hosting						
38	Hosting Fee		Included in licensing fees above						
39	Support Fees		\$500/month						
40	<b>Total Annual Software Cost</b>		<b>\$13,000/month = \$156,000/year</b>						
41	<b>One-time implementation fees</b>		<b>\$100,000</b>						
42									
43									
44									
45	<b>Customer ID Levels of Authentications (Project # 14877 Collections Optimization Phase 3 Release 1)</b>								
46	New customers will need to correctly answer unique, random questions to verify their identity.								
47	Introduce 2nd Level and 3rd Level ID Validations for new customer Turn-On when new customer does not supply social								
48	security number or new customer provides social security number but it is not successfully validated with credit bureau.								
49	Project implementation begins January 2015								
50									
51	2013 Connect Check (Credit Scoring) Charges		\$		332,265				
52									
53	Annual Forecasts				<u>2015</u>		<u>2016</u>		
54	1st Level ConnectCheck (POS-ID)		\$		300,797		\$		303,782
55	2nd Level ID Validation with Additional Customer Information		\$		11,397		\$		11,511
56	3rd Level ID Validation with Challenge Questions		\$		24,421		\$		24,666
57	Forecasted Annual Costs		\$		336,615		\$		339,958
58	(for 1st, 2nd, & 3rd Level ID Validations)								
59	2013 Connect Check (Credit Scoring) Charges		\$		332,265		\$		332,265
60	<b>Incremental Forecasted Costs to 2013 Base Year = Row 57-</b>								
	<b>Row 59</b>		\$		<b>4,351</b>		\$		<b>7,693</b>

**Beginning of Workpaper**  
**200004.001 - Credit and Collections Postage**

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 6. Credit & Collections  
 Workpaper: 200004.001 - Credit and Collections Postage

**Activity Description:**

Credit and Collections postage expenses cover the cost of mailing collection notices.

**Forecast Explanations:**

**Labor - Base YR Rec**

N/A

**Non-Labor - Base YR Rec**

N/A

**NSE - Base YR Rec**

The forecast method developed for this cost category is Base YR. This method is most appropriate because the base year recorded postage is an accurate representation of current postage expense and activity. There was a decrease in volume in the fourth quarter of 2013 due to the consolidation of the residential General Service Bill with the residential Past Due Payment Notice. The process of mailing a separate Past Due Payment Notice for residential customers has been discontinued effective September 23, 2013, which resulted in reduced postage expense. The reduction is partially offset by an increase due to higher postal rates in 2014 of 2.2 cents per piece.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
	Labor	0	0	0	0	0	0	0	0	
	Non-Labor	0	0	0	0	0	0	0	0	
	NSE	1,638	1,855	2,182	1,997	1,899	1,308	1,308	1,308	
	<b>Total</b>	<b>1,638</b>	<b>1,855</b>	<b>2,182</b>	<b>1,997</b>	<b>1,899</b>	<b>1,308</b>	<b>1,308</b>	<b>1,308</b>	
	FTE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 6. Credit & Collections  
 Workpaper: 200004.001 - Credit and Collections Postage

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
NSE	Base YR Rec	1,899	1,899	1,899	-591	-591	-591	1,308	1,308	1,308
<b>Total</b>		<b>1,899</b>	<b>1,899</b>	<b>1,899</b>	<b>-591</b>	<b>-591</b>	<b>-591</b>	<b>1,308</b>	<b>1,308</b>	<b>1,308</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	0	0	-591	-591	0.0	1-Sided Adj

Consolidation of the residential General Service Bill with the residential Past Due Payment Notice as a result of Project #81415 Collections Optimization Phase 1. The process of mailing a separate Past Due Payment Notice for residential customers has been discontinued effective September 23, 2013, which will result in postage savings. (-\$591K in NSE)

(Calculation based on 2014 postage rate increase of 2.2 cents per piece.)

<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>-591</b>	<b>-591</b>	<b>0.0</b>	
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2015	0	0	-591	-591	0.0	1-Sided Adj
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Consolidation of the residential General Service Bill with the residential Past Due Payment Notice as a result of Project #81415 Collections Optimization Phase 1. The process of mailing a separate Past Due Payment Notice for residential customers has been discontinued effective September 23, 2013, which will result in postage savings. (-\$591K in NSE)

(Calculation based on 2014 postage rate increase of 2.2 cents per piece.)

<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>-591</b>	<b>-591</b>	<b>0.0</b>	
-------------------	----------	----------	-------------	-------------	------------	--

2016	0	0	-591	-591	0.0	1-Sided Adj
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*Note: Totals may include rounding differences.*

Southern California Gas Company  
 2016 GRC - APP  
 Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 6. Credit & Collections  
 Workpaper: 200004.001 - Credit and Collections Postage

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
-------------------	--------------	-------------	------------	--------------	------------	-----------------

Consolidation of the residential General Service Bill with the residential Past Due Payment Notice as a result of Project #81415 Collections Optimization Phase 1. The process of mailing a separate Past Due Payment Notice for residential customers has been discontinued effective September 23, 2013, which will result in postage savings. See Credit and Collections 200004.001 Supplemental Workpaper 1 for details. (-\$591K in NSE)

(Calculation based on 2014 postage rate increase of 2.2 cents per piece.)

<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>-591</b>	<b>-591</b>	<b>0.0</b>	
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*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 6. Credit & Collections  
Workpaper: 200004.001 - Credit and Collections Postage

**Determination of Adjusted-Recorded (Incurred Costs):**

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	0
Non-Labor	1,478	1,717	2,099	1,963	1,899
NSE	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Total</b>	<b>1,478</b>	<b>1,717</b>	<b>2,099</b>	<b>1,963</b>	<b>1,899</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	-1,478	-1,717	-2,099	-1,963	-1,899
NSE	<u>1,478</u>	<u>1,717</u>	<u>2,099</u>	<u>1,963</u>	<u>1,899</u>
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	<u>1,478</u>	<u>1,717</u>	<u>2,099</u>	<u>1,963</u>	<u>1,899</u>
<b>Total</b>	<b>1,478</b>	<b>1,717</b>	<b>2,099</b>	<b>1,963</b>	<b>1,899</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	<u>160</u>	<u>139</u>	<u>84</u>	<u>35</u>	<u>0</u>
<b>Total</b>	<b>160</b>	<b>139</b>	<b>84</b>	<b>35</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	<u>1,638</u>	<u>1,855</u>	<u>2,182</u>	<u>1,997</u>	<u>1,899</u>
<b>Total</b>	<b>1,638</b>	<b>1,855</b>	<b>2,182</b>	<b>1,997</b>	<b>1,899</b>
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.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 6. Credit & Collections  
 Workpaper: 200004.001 - Credit and Collections Postage

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	0	0	0
Non-Labor	-1,478	-1,717	-2,099	-1,963	-1,899
NSE	1,478	1,717	2,099	1,963	1,899
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
2009	0	-1,478	1,478	0.0	1-Sided Adj	N/A	RMCHRIST20131 119130933183
To move postage expenses to NSE.							
<b>2009 Total</b>	<b>0</b>	<b>-1,478</b>	<b>1,478</b>	<b>0.0</b>			
2010	0	-1,717	1,717	0.0	1-Sided Adj	N/A	RMCHRIST20131 119131103353
To move postage expenses to NSE							
<b>2010 Total</b>	<b>0</b>	<b>-1,717</b>	<b>1,717</b>	<b>0.0</b>			
2011	0	-2,099	2,099	0.0	1-Sided Adj	N/A	RMCHRIST20131 119132106293
To move postage expenses to NSE							
<b>2011 Total</b>	<b>0</b>	<b>-2,099</b>	<b>2,099</b>	<b>0.0</b>			
2012	0	-1,963	1,963	0.0	1-Sided Adj	N/A	RMCHRIST20131 119132108053
To move postage expenses to NSE							
<b>2012 Total</b>	<b>0</b>	<b>-1,963</b>	<b>1,963</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 6. Credit & Collections  
 Workpaper: 200004.001 - Credit and Collections Postage

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
2013	0	-1,899	1,899	0.0	1-Sided Adj	N/A	RMCHRIST20140 130111327653
To move postage expenses to NSE							
<b>2013 Total</b>	<b>0</b>	<b>-1,899</b>	<b>1,899</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Supplemental Workpapers for Workpaper 200004.001**

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Credit and Collection Postage 200004.001 Supplemental Workpaper 1  
Postage Calculation

	A	B	C	D	E	F	G	H	I
1	<b>Collections Notices</b>								
3		USPS	USPS		PSI	PSI		PSI	PSI
4		41.4 Notices	41.4 Notices		41.4 Notices	41.4 Notices		Other Notices	Other Notices
5	2013	Volume	Dollars		Volume	Dollars		Volume	Dollars
6	Jan-13	72,546	\$ 25,583.06		234,691	\$ 88,231.58		152,671	\$ 58,947.12
7	Feb-13	117,256	\$ 42,212.16		230,598	\$ 88,549.63		151,250	\$ 59,730.50
8	Mar-13	105,549	\$ 37,997.64		265,354	\$ 101,895.94		204,603	\$ 80,585.91
9	Apr-13	76,905	\$ 27,692.19		276,724	\$ 106,262.02		200,352	\$ 79,096.54
10	May-13	57,282	\$ 20,639.97		259,792	\$ 99,760.13		187,118	\$ 73,826.12
11	Jun-13	46,472	\$ 16,729.92		233,675	\$ 89,731.20		167,155	\$ 65,902.81
12	Jul-13	54,302	\$ 19,548.72		261,287	\$ 100,334.21		185,777	\$ 73,299.25
13	Aug-13	49,305	\$ 17,749.80		257,944	\$ 99,050.50		175,498	\$ 69,383.96
14	Sep-13	28,684	\$ 10,326.24		177,859	\$ 68,297.86		155,215	\$ 61,343.61
15	Oct-13	-	\$ -		60,445	\$ 23,210.88		154,076	\$ 60,480.07
16	Nov-13	-	\$ -		46,869	\$ 17,997.70		115,489	\$ 45,581.17
17	Dec-13	-	\$ -		49,258	\$ 18,915.07		122,202	\$ 47,991.84
18	<b>2013 Totals</b>	<b>608,301</b>	<b>\$ 218,479.70</b>		<b>2,354,496</b>	<b>\$ 902,236.70</b>		<b>1,971,406</b>	<b>\$ 776,168.90</b>
19	Consolidation of the residential General Service Bill with the residential Past Due Payment Notice								
20	The process of mailing a separate Past Due Payment Notice for residential customers has been discontinued effective September 23, 2013, which will result in postage savings. This eliminated the need to mail USPS 41.4 Notices and significantly reduced the number of PSI 41.4 Notices required to be mailed. PSI Other Notices were not impacted.								
21									
22	<b>Postage Expense Forecast for Collections Notices</b>								
23	Average Volume Oct-Dec 2013 for PSI 41.4 Notices was used to project a 12-month Forecast = SUM(E15:17)/3							52,191	
24	12-month Volume Forecast for PSI 41.4 Notices = H23*12							<b>626,288</b>	
25									
26	PSI Other Notices are projected to be the same as 2013 = H18							<b>1,971,406</b>	
27									
28	<b>Annual Volume Total (Forecast) =H24+H26</b>							<b>2,597,694</b>	
29									
30	2014 3-digit postage rate							\$ 0.406	
31	2014 Dollars Total (Forecast) = H28*H30							<b>\$ 1,054,664</b>	
32									
33	2015 3-digit postage rate (assume 0 cent increase from 2014 rate)							\$ 0.406	
34	<b>2015 Dollars Total (Forecast) = H28*H33</b>							<b>\$ 1,054,664</b>	
35									
36	2016 3-digit postage rate (assume 0 cent increase from 2015)							\$ 0.406	
37	<b>2016 Dollars Total (Forecast) = H28*H36</b>							<b>\$ 1,054,664</b>	
38									
39	<b>2013 Adjusted-Recorded Dollars (Base Year)</b>							<b>\$ 1,898,879</b>	
40	Postage savings (H37-H39)							<b>\$ (844,216)</b>	
41	Estimated 30% of postage savings will be offset by paperless customers who will now receive a paper 2-month Bill when a form 41.4 is required. 30% number is based on a 4 month sample period from June 2014 to September 2014 (H40*.30)*-1							<b>\$ 253,264.68</b>	
42	<b>Total postage savings equals H40-H41</b>							<b>\$ (590,951)</b>	

**Beginning of Workpaper**  
**200005.000 - Remittance Processing**

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 7. Remittance Processing  
 Workpaper: 200005.000 - Remittance Processing

**Activity Description:**

Remittance Processing provides printing and inserting services for customer bills, notices, letters and other customer correspondence as well as management support for payment processing activities. Expenses include the labor costs associated with these activities as well as non-labor costs for paper stock, bill forms, envelopes, stationery items, printer and inserter machine maintenance and associated consumable supplies.

**Forecast Explanations:**

**Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Remittance Processing O&M costs. These costs are driven by the volumes of bills, notices and payments which are impacted by customer growth as well as customer choice of billing and payment channels. For these reasons, the Base Year 2013 is used as basis to forecast TY2016, plus adjustments for cost increases and savings from these activities. .

**Non-Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Remittance Processing O&M costs. These costs are driven by the volumes of bills, notices and payments which are impacted by customer growth as well as customer choice of billing and payment channels. For these reasons, the Base Year 2013 is used as basis to forecast TY2016, plus adjustments for cost increases and savings from these activities.

**NSE - Base YR Rec**

NSE is not applicable to this workgroup.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		1,753	1,827	1,813	1,903	1,880	1,880	1,880	1,880	
Non-Labor		4,814	4,606	5,230	5,026	4,574	4,561	4,551	4,543	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>6,567</b>	<b>6,433</b>	<b>7,043</b>	<b>6,930</b>	<b>6,454</b>	<b>6,441</b>	<b>6,431</b>	<b>6,423</b>	
FTE		23.5	24.6	24.9	25.9	25.6	25.6	25.6	25.6	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 7. Remittance Processing  
 Workpaper: 200005.000 - Remittance Processing

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	1,880	1,880	1,880	0	0	0	1,880	1,880	1,880
Non-Labor	Base YR Rec	4,574	4,574	4,574	-13	-23	-31	4,561	4,551	4,543
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>6,454</b>	<b>6,454</b>	<b>6,454</b>	<b>-13</b>	<b>-23</b>	<b>-31</b>	<b>6,441</b>	<b>6,431</b>	<b>6,423</b>
FTE	Base YR Rec	25.6	25.6	25.6	0.0	0.0	0.0	25.6	25.6	25.6

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	0	45	0	45	0.0	1-Sided Adj

Vedor fees for e-Bills delivered. See supplemental work paper for details. (45K Non Labor)

2014	0	-58	0	-58	0.0	1-Sided Adj
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Savings from combined electronic bills. See supplemental work paper for details.(-58K Non Labor)

<b>2014 Total</b>	<b>0</b>	<b>-13</b>	<b>0</b>	<b>-13</b>	<b>0.0</b>	
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2015	0	96	0	96	0.0	1-Sided Adj
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Vedor fees for e-Bills delivered. See supplemental work paper for details. (96K Non Labor)

2015	0	-119	0	-119	0.0	1-Sided Adj
------	---	------	---	------	-----	-------------

Savings from combined electronic bills. See supplemental work paper for details. (-119K Non Labor)

<b>2015 Total</b>	<b>0</b>	<b>-23</b>	<b>0</b>	<b>-23</b>	<b>0.0</b>	
-------------------	----------	------------	----------	------------	------------	--

2016	0	150	0	150	0.0	1-Sided Adj
------	---	-----	---	-----	-----	-------------

Vedor fees for e-Bills delivered. See Remittance Processing 200005.000 Supplemental work paper 1 Row 13 for details. (150K Non Labor)

2016	0	-181	0	-181	0.0	1-Sided Adj
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Savings from combined electronic bills. See Remittance Processing 200005.000 Supplemental work paper 1 Row 28 for details (-181K Non Labor)

Note: Totals may include rounding differences.

Southern California Gas Company  
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 Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 7. Remittance Processing  
 Workpaper: 200005.000 - Remittance Processing

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
<b>2016 Total</b>	<b>0</b>	<b>-31</b>	<b>0</b>	<b>-31</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 7. Remittance Processing  
Workpaper: 200005.000 - Remittance Processing

**Determination of Adjusted-Recorded (Incurred Costs):**

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	1,347	1,447	1,485	1,602	1,612
Non-Labor	4,345	4,262	5,030	5,363	4,150
NSE	0	0	0	0	0
<b>Total</b>	<b>5,692</b>	<b>5,709</b>	<b>6,514</b>	<b>6,966</b>	<b>5,762</b>
FTE	19.8	20.9	21.2	22.2	21.9
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	-424	424
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-424</b>	<b>424</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	1,347	1,447	1,485	1,602	1,612
Non-Labor	4,345	4,262	5,030	4,939	4,574
NSE	0	0	0	0	0
<b>Total</b>	<b>5,692</b>	<b>5,709</b>	<b>6,514</b>	<b>6,542</b>	<b>6,186</b>
FTE	19.8	20.9	21.2	22.2	21.9
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	243	253	247	257	268
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>243</b>	<b>253</b>	<b>247</b>	<b>257</b>	<b>268</b>
FTE	3.7	3.8	3.6	3.7	3.7
<b>Escalation to 2013\$</b>					
Labor	163	127	82	45	0
Non-Labor	469	344	200	87	0
NSE	0	0	0	0	0
<b>Total</b>	<b>631</b>	<b>471</b>	<b>282</b>	<b>132</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	1,753	1,827	1,813	1,903	1,880
Non-Labor	4,814	4,606	5,230	5,026	4,574
NSE	0	0	0	0	0
<b>Total</b>	<b>6,567</b>	<b>6,433</b>	<b>7,043</b>	<b>6,930</b>	<b>6,454</b>
FTE	23.5	24.7	24.8	25.9	25.6

\* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

Southern California Gas Company  
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Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 7. Remittance Processing  
 Workpaper: 200005.000 - Remittance Processing

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	0	0	0
Non-Labor	0	0	0	-424	424
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-424</b>	<b>424</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2009 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2010 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2011 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
2012	0	-424	0	0.0	1-Sided Adj	N/A	RMCHRIST20140 423103427287
<p>Two years worth of toner was purchased in 2012 and is not represented in 2013 historical costs. Splitting that cost over two years <math>(951.5 + 103.1)/2</math>. This adjustment will reduce the 2012 historical so that we can add toner dollars to 2013 and accurately reflect the toner costs for that year. (424K Non Labor)</p>							
<b>2012 Total</b>	<b>0</b>	<b>-424</b>	<b>0</b>	<b>0.0</b>			
2013	0	424	0	0.0	1-Sided Adj	N/A	RMCHRIST20140 423103623680
<p>Two years worth of toner was purchased in 2012 and is not represented in 2013 historical costs. Splitting that cost over two years <math>(951.5 + 103.1)/2</math>. This adjustment will move toner dollars from 2012 to 2013 and accurately reflect the toner costs for both years. (424K Non Labor)</p>							
<b>2013 Total</b>	<b>0</b>	<b>424</b>	<b>0</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

**Supplemental Workpapers for Workpaper 200005.000**

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Remittance Processing 200005.000 Supplemental Workpaper 1  
Vendor Fees for e-bills Delivered and Savings From Paperless Bills

	C	D	E	F	G	H
2						
3	<b>Redacted Public Version</b>	<b>Remittance Processing Combined 2013/2016 Change</b>				
4						
6						
7			2014	2015	2016	
8	<b>Vendor's Fees For e-Bills Delivered</b>					
9		cost per e-Bill Delivered				
10						
11	<b>See Remittance Processing Postage 200005.001 Supplemental Workpaper 1 Incremental Volume of Bills and Letters Row 32 Coumns N,O, and P</b>	Number of e-Bills Delivered Above 2013				
12						
13		Cumulative \$= <b>Row9*Row11</b>	\$44,592	\$96,480	<b>\$149,923</b>	
14						
15						
16						
17						
18						
21						
22			2014	2015	2016	
23	<b>Savings From Paperless Bills</b>					
24		Forms & envelopes	\$0.0296	\$0.0296	\$0.0296	
25						
26	<b>See Remittance Processing Postage 200005.001 Supplemental Workpaper 1 Incremental Volume of Bills and Letters Combined Total From Row 31 and 32 Columns N,O,P.</b>	Number Avoided Due to Savings From Paperless Bills	1,947,761	4,008,086	6,123,535	
27						
28		Cumulative \$= <b>Row24*Row26</b>	(\$57,654)	(\$118,639)	<b>(\$181,257)</b>	
29						
30						
31						
32						
33						
34		<b>Combination of Changes to Vendor Fees for e-Bills Delivered and Savings From Paperless Bills G13+G28</b>				<b>-\$31,334</b>
35						

**Beginning of Workpaper**  
**200005.001 - Remittance Processing Postage**

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 8. Remittance Processing  
 Workpaper: 200005.001 - Remittance Processing Postage

**Activity Description:**

This cost center group is used to track postage costs associated with mailing of the SCG's customer bills, notices, letters, and customer correspondence.

**Forecast Explanations:**

**Labor - Base YR Rec**

N/A

**Non-Labor - Base YR Rec**

N/A

**NSE - Base YR Rec**

A Base Year forecasting methodology was applied to project Remittance Processing Postage O&M costs. Postage for bill delivery includes postage for paper bills and notices mailed through the United States Postal Service (USPS). The postage expense depends on postage rates which are determined by the USPS and the volume of paper bills and notices which are impacted by customer growth as well as electronic bill adoption levels. For these reasons, a Base Year is used as the basis to forecast Test Year 2016, plus adjustments for postage rate increases for paper bills and notices mailed through USPS and savings from paperless billing (My Account) and electronic bill delivery to customers' home banking websites.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		0	0	0	0	0	0	0	0	
NSE		20,554	19,658	18,596	17,976	17,521	17,890	17,264	16,651	
<b>Total</b>		<b>20,554</b>	<b>19,658</b>	<b>18,596</b>	<b>17,976</b>	<b>17,521</b>	<b>17,890</b>	<b>17,264</b>	<b>16,651</b>	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 8. Remittance Processing  
 Workpaper: 200005.001 - Remittance Processing Postage

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
NSE	Base YR Rec	17,521	17,521	17,521	369	-257	-870	17,890	17,264	16,651
<b>Total</b>		<b>17,521</b>	<b>17,521</b>	<b>17,521</b>	<b>369</b>	<b>-257</b>	<b>-870</b>	<b>17,890</b>	<b>17,264</b>	<b>16,651</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>
2014	0	0	84	84	0.0	1-Sided Adj
Meter Growth. (\$84K NSE)						
2014	0	0	1,425	1,425	0.0	1-Sided Adj
Postage required due to rate increase. (\$1425K NSE)						
2014	0	0	-699	-699	0.0	1-Sided Adj
Postage reduction due to savings from customer adoption of paperless electronic billing statements. (-\$699K NSE)						
2014	0	0	-441	-441	0.0	1-Sided Adj
Postage reduction for savings from combined electronic bills due to rate increase. (-441K NSE)						
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>369</b>	<b>369</b>	<b>0.0</b>	
2015	0	0	233	233	0.0	1-Sided Adj
Meter Growth. (233K NSE)						
2015	0	0	1,434	1,434	0.0	1-Sided Adj
Postage required due to rate increase. (1 434K NSE)						
2015	0	0	-1,439	-1,439	0.0	1-Sided Adj
Postage reduction due to savings from customer adoption of paperless electronic billing statements. (-1439K NSE)						

*Note: Totals may include rounding differences.*

Southern California Gas Company  
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Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 8. Remittance Processing  
 Workpaper: 2OO005.001 - Remittance Processing Postage

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2015	0	0	-485	-485	0.0	1-Sided Adj
Postage reduction for savings from combined electronic bills due to rate increase. (-485K NSE)						
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>-257</b>	<b>-257</b>	<b>0.0</b>	
2016	0	0	412	412	0.0	1-Sided Adj
Meter Growth. (412K NSE) See Remittance Processing Postage 2OO005.001 Supplemental Workpaper 1 Cell P50 for details.						
2016	0	0	1,444	1,444	0.0	1-Sided Adj
Postage required due to rate increase. (1 444K NSE)See Remittance Processing Postage 2OO005.001 Supplemental Workpaper 1 Cell P52 for details.						
2016	0	0	-2,197	-2,197	0.0	1-Sided Adj
Postage reduction due to savings from customer adoption of paperless electronic billing statements. (-2,197K NSE) See Remittance Processing Postage 2OO005.001 Supplemental Workpaper 1 Cell L50 for details. This adjustment, combined with the -\$529K adjustment for savings due to the postage rate increase is equal to the value expressed in Cell L50.						
2016	0	0	-529	-529	0.0	1-Sided Adj
Postage reduction for savings from combined electronic bills due to rate increase. (-529K NSE) See Remittance Processing Postage 2OO005.001 Supplemental Workpaper 1 Cell L50 for details. This adjustment, combined with the -\$1444K adjustment for savings due paperless billing is equal to the value expressed in Cell L50.						
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>-870</b>	<b>-870</b>	<b>0.0</b>	

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 8. Remittance Processing  
Workpaper: 200005.001 - Remittance Processing Postage

**Determination of Adjusted-Recorded (Incurred Costs):**

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	0
Non-Labor	20,424	18,900	17,489	16,469	17,248
NSE	0	0	0	0	0
<b>Total</b>	<b>20,424</b>	<b>18,900</b>	<b>17,489</b>	<b>16,469</b>	<b>17,248</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	-20,424	-18,900	-17,489	-16,469	-17,248
NSE	18,745	18,337	17,936	17,720	17,521
<b>Total</b>	<b>-1,679</b>	<b>-563</b>	<b>447</b>	<b>1,251</b>	<b>274</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	18,745	18,337	17,936	17,720	17,521
<b>Total</b>	<b>18,745</b>	<b>18,337</b>	<b>17,936</b>	<b>17,720</b>	<b>17,521</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	1,809	1,320	660	256	0
<b>Total</b>	<b>1,809</b>	<b>1,320</b>	<b>660</b>	<b>256</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	20,554	19,658	18,596	17,976	17,521
<b>Total</b>	<b>20,554</b>	<b>19,658</b>	<b>18,596</b>	<b>17,976</b>	<b>17,521</b>
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.

Southern California Gas Company  
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Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 8. Remittance Processing  
 Workpaper: 200005.001 - Remittance Processing Postage

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	0	0	0
Non-Labor	-20,424	-18,900	-17,489	-16,469	-17,248
NSE	18,745	18,337	17,936	17,720	17,521
<b>Total</b>	<b>-1,679</b>	<b>-563</b>	<b>447</b>	<b>1,251</b>	<b>274</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
2009	0	-20,424	20,424	0.0	1-Sided Adj	N/A	RMCHRIST20131 118105427127
To move postage expenses to NSE							
2009	0	0	-1,679	0.0	1-Sided Adj	N/A	RMCHRIST20131 118105510847
Adjustment to align year end postage expenses. Postage is precharged to an asset balancing account and then trued up to actual spending after final postage numbers are in.							
<b>2009 Total</b>	<b>0</b>	<b>-20,424</b>	<b>18,745</b>	<b>0.0</b>			
2010	0	-18,900	18,900	0.0	1-Sided Adj	N/A	RMCHRIST20131 118105634667
To move postage expenses to NSE							
2010	0	0	-563	0.0	1-Sided Adj	N/A	RMCHRIST20131 118105706660
Adjustment to align year end postage expenses. Postage is precharged to an asset balancing account and then trued up to actual spending after final postage numbers are in.							
<b>2010 Total</b>	<b>0</b>	<b>-18,900</b>	<b>18,337</b>	<b>0.0</b>			
2011	0	-17,489	17,489	0.0	1-Sided Adj	N/A	RMCHRIST20131 118105944620
To move postage expenses to NSE							
2011	0	0	447	0.0	1-Sided Adj	N/A	RMCHRIST20131 118110038607
Adjustment to align year end postage expenses. Postage is precharged to an asset balancing account and then trued up to actual spending after final postage numbers are in.							

Note: Totals may include rounding differences.

Southern California Gas Company  
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Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 8. Remittance Processing  
 Workpaper: 200005.001 - Remittance Processing Postage

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2011 Total</b>	<b>0</b>	<b>-17,489</b>	<b>17,936</b>	<b>0.0</b>			
2012	0	-16,469	16,469	0.0	1-Sided Adj	N/A	RMCHRIST20131 118110227397
To move postage expenses to NSE							
2012	0	0	1,251	0.0	1-Sided Adj	N/A	RMCHRIST20131 118110307693
Adjustment to align year end postage expenses. Postage is precharged to an asset balancing account and then trued up to actual spending after final postage numbers are in.							
<b>2012 Total</b>	<b>0</b>	<b>-16,469</b>	<b>17,720</b>	<b>0.0</b>			
2013	0	-17,248	17,248	0.0	1-Sided Adj	N/A	RMCHRIST20140 217091804840
To move postage expenses to NSE							
2013	0	0	274	0.0	1-Sided Adj	N/A	RMCHRIST20140 217092520827
Adjustment to align year end postage expenses. Postage is precharged to an asset balancing account and then trued up to actual spending after final postage numbers are in.							
<b>2013 Total</b>	<b>0</b>	<b>-17,248</b>	<b>17,521</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

**Supplemental Workpapers for Workpaper 200005.001**

	A	B	C	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	T
8																		
9	A	Active Meters	Actual	Actual	Actual	Actual	Actual	Forecast	Forecast	Forecast			Forecast	Forecast	Forecast			
10			2009	2010	2011	2012	2013	2014	2015	2016			2014	2015	2016			
11																		
12		<b>Total Active Meters</b>	5,480,314	5,516,668	5,549,177	5,576,355	5,606,113	5,631,340	5,667,131	5,709,903			25,227	61,018	103,790			
13																		
14	B	<b>Bills &amp; Letters Per Meter</b>																
15		Billing Letters	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01								
16		Paper Bills	10.23	9.83	9.42	9.00	8.61	8.27	7.93	7.59								
17		My Account Electronic Bills	1.59	1.90	2.21	2.56	2.86	3.16	3.46	3.76								
18		Consolidator e-Bills	0.33	0.39	0.44	0.47	0.53	0.57	0.61	0.65								
19		<b>Total</b>	<b>12.17</b>	<b>12.14</b>	<b>12.08</b>	<b>12.04</b>	<b>12.01</b>	<b>12.01</b>	<b>12.01</b>	<b>12.01</b>								
20																		
21		Reduction in # of Paper Bills Per Meter from previous year		-0.40	-0.41	-0.42	-0.39	-0.34	-0.34	-0.34								
22		Rate of change in paper bill reduction from previous year			-0.01	-0.01	0.03	0.05	0.00	0.00								
23																		
24		<b>Total Bills Per Meter</b>	12.15	12.12	12.07	12.03	12.00	12.00	12.00	12.00								
25																		
26		<b>Letters Per Meter</b>	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01								
27																		
28	C = A * B	<b>Volume of Bills and Letters</b>	Actual	Actual	Actual	Actual	Actual	Forecast	Forecast	Forecast			Forecast	Forecast	Forecast			
29		Billing Letters	94,430	95,033	81,397	75,812	76,127	76,586	77,073	77,655			459	946	1,528			
30		Paper Bills	56,051,464	54,205,230	52,296,314	50,185,893	48,268,919	46,571,182	44,940,349	43,338,164			(1,697,737)	(3,328,570)	(4,930,755)			
31		My Account Electronic Bills	8,700,376	10,486,273	12,263,168	14,249,584	16,059,617	17,795,034	19,608,273	21,469,235			1,735,417	3,548,656	5,409,618			
32		Consolidator e-Bills	1,807,177	2,139,910	2,414,322	2,625,917	2,997,520	3,209,864	3,456,950	3,711,437			212,344	459,430	713,917			
33		<b>Total</b>	<b>66,653,447</b>	<b>66,926,446</b>	<b>67,055,201</b>	<b>67,137,206</b>	<b>67,402,183</b>	<b>67,652,666</b>	<b>68,082,645</b>	<b>68,596,491</b>			250,483	680,462	1,194,308			
34																		
35	D	<b>Postal Rate</b>					2013	2014	2015	2016			2014	2015	2016			
36		Billing Letters				Average rate	\$0.3832	\$0.4052	\$0.4052	\$0.4052			\$0.3832	\$0.3832	\$0.3832			Apply BY 2013 Postage Rates to isolate meter
37		Paper Bills				Average rate	\$0.3624	\$0.3835	\$0.3835	\$0.3835			\$0.3624	\$0.3624	\$0.3624			growth impact
38		Assumed avoided postage rate due to My Account Electronic Bills				Average rate	\$0.3590	\$0.3800	\$0.3800	\$0.3800			\$0.3590	\$0.3590	\$0.3590			
39		Assumed avoided postage rate due to Consolidator e-Bills				Average rate	\$0.3590	\$0.3800	\$0.3800	\$0.3800			\$0.3590	\$0.3590	\$0.3590			
40																		
41	E = C * D	<b>Postage Costs</b>																
42		Billing Letters	\$33,311	\$33,810	\$29,476	\$28,312	\$29,173	\$31,033	\$31,230	\$31,466			\$176	\$363	\$586			Incremental postage above BY 2013 due to meter growth =
43		Paper Bills	\$18,711,489	\$18,303,501	\$17,906,749	\$17,691,450	\$17,492,112	\$17,860,048	\$17,234,624	\$16,620,186			(\$615,260)	(\$1,206,274)	(\$1,786,906)			incremental volume of bills & letters * 2013 postage rates
44		<b>Total Remittance Postage</b>	<b>\$18,744,800</b>	<b>\$18,337,311</b>	<b>\$17,936,225</b>	<b>\$17,719,762</b>	<b>\$17,521,285</b>	<b>\$17,891,081</b>	<b>\$17,265,854</b>	<b>\$16,651,652</b>								Billing Letters
45		Incremental postage costs (savings) above BY 2013						\$369,796	(\$255,431)	(\$869,633)								Paper Bills
46																		
47		Avoided postage costs due to My Account electronic bills	\$2,876,675	\$3,506,311	\$4,145,916	\$4,973,940	\$5,765,878	\$6,762,113	\$7,451,144	\$8,158,309			\$623,015	\$1,273,968	\$1,942,053			My Account Electronic Bills
48		Avoided postage costs due to Consolidator e-Bills	\$597,521	\$715,525	\$816,231	\$916,599	\$1,076,198	\$1,219,748	\$1,313,641	\$1,410,346			\$76,231	\$164,935	\$256,296			Consolidator E-bills
49		<b>Total avoided postage costs due to electronic billing</b>	<b>\$3,474,196</b>	<b>\$4,221,836</b>	<b>\$4,962,147</b>	<b>\$5,890,539</b>	<b>\$6,842,076</b>	<b>\$7,981,861</b>	<b>\$8,764,785</b>	<b>\$9,568,655</b>								
50		<b>Incremental avoided postage costs above BY 2013 due to electronic billing:</b>	<b>\$1,139,785</b>	<b>\$1,922,709</b>	<b>\$2,726,579</b>								\$ 84,162	\$ 232,992	\$ 412,029			Total gross increase above BY 2013 due to meter growth
51																		
52																		
53																		
54		<b>Gross increase in postage due to meter growth and postage rate = Row 45 + Row 50:</b>						\$1,509,581	\$1,667,278	\$1,856,946			\$1,425,419	\$1,434,286	\$1,444,917			Total gross increase above BY 2013 due to postage = total gross increase - meter growth increase
55																		
56		<b>Bills Delivered By Channel as a percentage of total bills and letters</b>																
57		Billing Letters	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%								
58		Paper Bills	84.1%	81.0%	78.0%	74.8%	71.6%	68.8%	66.0%	63.2%								
59		My Account Electronic Bills	13.1%	15.7%	18.3%	21.2%	23.8%	26.3%	28.8%	31.3%								
60		Consolidator e-Bills Delivered	2.7%	3.2%	3.6%	3.9%	4.4%	4.7%	5.1%	5.4%								
61		<b>Total</b>	<b>100.0%</b>															

**Beginning of Workpaper**  
**200006.000 - Customer Service Other Office Ops and Technology**

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 9. CS - Other Office Ops  
Workpaper: 200006.000 - Customer Service Other Office Ops and Technology

**Activity Description:**

Customer Service Other Office Ops and Technology is comprised of the following groups:

- The Vice President of Customer Services provides oversight and leadership for all Customer Services activities including executive support as well costs associated with a summer internship program.
- Customer Operations Technology ("COT") provides business systems support including: Business requirements definition, analysis and prioritization; Quality assurance, user acceptance and regression testing of applications; Responding to and coordinating with IT on system issues; Compiling and publishing system change release notes; Administering user access and privileges to customer applications; and Facilitating internal requests for data from customer systems.
- Customer Service Technology Project Management develops and manages the governance and standards for customer service technology projects, and monitors and reports on project status. Including the following activities: Project identification, prioritization and approval; Business case development; risk and issue tracking; Cross project dependency identification and management; Schedule and budget tracking; Change control; Project close-out and transition to ongoing business support; and Consolidated project status reporting.
- Business Planning Client Support works collaboratively with the client organizations to provide comprehensive financial reporting of operating results, produce variance reporting, develop year-end outlooks, annual budgets and the 5 year financial plan. The group also ensures that client organizations are in compliance with company policies, accounting principles and SOX reporting requirements.

**Forecast Explanations:**

**Labor - Base YR Rec**

A base year forecasting methodology was applied to project Customer Services Other Office Ops and Technology O&M costs. The base year method is appropriate because it reflects the growing level of support required as the number of technology projects increases. It also reflects the increased support required as the number and complexity of customer technology applications has grown. These costs are not reflected in historical averages, but are planned to continue in the forecast years.

**Non-Labor - Base YR Rec**

A base year forecasting methodology was applied to project Customer Services Other Office Ops and Technology O&M costs. The base year method is appropriate because it reflects the growing level of support required as the number of technology projects increases. It also reflects the increased support required as the number and complexity of customer technology applications has grown. These costs are not reflected in historical averages, but are planned to continue in the forecast years.

**NSE - Base YR Rec**

NSE is not applicable to this workgroup.

*Note: Totals may include rounding differences.*

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 Category-Sub: 9. CS - Other Office Ops  
 Workpaper: 200006.000 - Customer Service Other Office Ops and Technology

**Summary of Results:**

		<b>In 2013\$ (000) Incurred Costs</b>								
		<b>Adjusted-Recorded</b>					<b>Adjusted-Forecast</b>			
<b>Years</b>		<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	
Labor		2,549	2,298	2,533	2,401	2,567	2,850	3,515	3,582	
Non-Labor		126	59	265	1,180	764	1,033	803	920	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>2,675</b>	<b>2,357</b>	<b>2,798</b>	<b>3,581</b>	<b>3,330</b>	<b>3,882</b>	<b>4,317</b>	<b>4,501</b>	
FTE		24.6	23.7	27.1	25.4	27.7	31.1	38.5	39.5	

*Note: Totals may include rounding differences.*

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**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	2,567	2,567	2,567	283	948	1,015	2,850	3,515	3,582
Non-Labor	Base YR Rec	764	764	764	269	39	156	1,033	803	920
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>3,330</b>	<b>3,330</b>	<b>3,330</b>	<b>552</b>	<b>987</b>	<b>1,171</b>	<b>3,882</b>	<b>4,317</b>	<b>4,501</b>
FTE	Base YR Rec	27.7	27.7	27.7	3.4	10.8	11.8	31.1	38.5	39.5

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	55	0	0	55	1.3	1-Sided Adj

Summer Intern Program 5 interns - 3 months (55K Labor with 1.3 FTE).

2014	120	10	0	130	1.0	1-Sided Adj
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Establish a Customer Privacy Program to meet CPUC requirements in D. 12-08-045. The CPUC ordered Rules to Protect Energy Usage Data in the Decision extending privacy protections to customers of Gas Corporations and Community Choice Aggregators, and to Residential and Small Commercial Customers of Electric Services Providers. The rules include Tariff Compliance, Reporting and an Independent Audit. - Proj Manager & software costs. \$120K for Project Manager and \$10K for software. (120K Labor with 1.0 FTE and 10K non labor).

2014	50	259	0	309	0.5	1-Sided Adj
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Customer Technology Program Management for additional resources required to provide business program management support for technology related customer initiatives. Project Manager to be hired mid 2014 at \$100K in Labor per year. (50K in Labor with .5 FTE and an additional 259K in Non-labor for consulting services)

2014	31	0	0	31	0.3	1-Sided Adj
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Mobile application system enhancements requiring programing and testing of new self services features - Business System Analyst. (31K in Labor and .3 FTEs)

2014	27	0	0	27	0.3	1-Sided Adj
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Adding 2 FTE @ \$93k to support the Integrated Customer Data and Analytics. Scheduled to start in late 2014 with full year cost of \$186K in Labor and 2.0 FT.= (27K in Labor and .3 FTE)

<b>2014 Total</b>	<b>283</b>	<b>269</b>	<b>0</b>	<b>552</b>	<b>3.4</b>	
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*Note: Totals may include rounding differences.*

Southern California Gas Company  
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Area: CS - OFFICE OPERATIONS  
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 Workpaper: 200006.000 - Customer Service Other Office Ops and Technology

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2015	55	0	0	55	1.3	1-Sided Adj
Summer Intern Program 5 interns - 3 months (55K Labor with 1.3 FTE).						
2015	360	30	0	390	4.0	1-Sided Adj
Establish a Customer Privacy Program to meet CPUC requirements in D. 12-08-045. The CPUC ordered Rules to Protect Energy Usage Data in the Decision extending privacy protections to customers of Gas Corporations and Community Choice Aggregators, and to Residential and Small Commercial Customers of Electric Services Providers. The rules include Tariff Compliance, Reporting and an Independent Audit. \$120K for a Project Manager ( hired in 2014), \$80K each for 3 Systems Analysts/Advisors (beginning 2015), \$10K for software. 5K for certification costs for a Certified Information Privacy Professional ("CIPP") designation for the privacy program manager and \$15K for bill insert costs to inform new customers.(360K Labor with 4.0 FTE and 30K non labor).						
2015	300	9	0	309	3.0	1-Sided Adj
Customer Technology Program Management for additional resources required to provide business program management support for technology related customer initiatives. 2 Project Managers and 1 Business Architect @ \$100K each (\$300K in Labor and 3.0 FTEs with \$9K in Non-labor)						
2015	47	0	0	47	0.5	1-Sided Adj
Mobile application system enhancements requiring programing and testing of new self services features - Business System Analyst. (47K Labor with .5 FTE)						
2015	186	0	0	186	2.0	1-Sided Adj
Adding 2 FTE @ \$93k to support the Integrated Customer Data and Analytics. Scheduled to start in late 2014 (186K in Labor and 2.0 FTEs)						
<b>2015 Total</b>	<b>948</b>	<b>39</b>	<b>0</b>	<b>987</b>	<b>10.8</b>	
2016	55	0	0	55	1.3	1-Sided Adj
Summer Intern Program 5 interns - 3 months (55K Labor with 1.3 FTE).						
2016	360	147	0	507	4.0	1-Sided Adj

Note: Totals may include rounding differences.

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<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
<p>Establish a Customer Privacy Program to meet CPUC requirements in D. 12-08-045. The CPUC ordered Rules to Protect Energy Usage Data in the Decision extending privacy protections to customers of Gas Corporations and Community Choice Aggregators, and to Residential and Small Commercial Customers of Electric Services Providers. The rules include Tariff Compliance, Reporting and an Independent Audit. \$120K for a Project Manager ( hired in 2014), \$80K each for 3 Systems Analysts/Advisors (beginning 2015), \$10K for software. 5K for certification costs for a Certified Information Privacy Professional (“CIPP”) designation for the privacy program manager and \$15K for bill insert costs to inform new customers. The independent audit is to be conducted every GRC cycle with a 2016 cost of 350K divided over the 3 forecasted years (117K in Non-labor). The forecasted audit fee was based on a 2014 audit fee of \$243K plus anticipated increases for the next audit. (360K in Labor with 4.0 FTEs and 147K in Non-labor)</p>						
2016	300	9	0	309	3.0	1-Sided Adj
<p>Customer Technology Program Management for additional resources required to provide business program management support for technology related customer initiatives. 2 Project Managers and 1 Business Architect @ \$100K each (\$300K in Labor and 3.0 FTEs with \$9K in Non-labor)</p>						
2016	114	0	0	114	1.5	1-Sided Adj
<p>Mobile application system enhancements requiring programing and testing of new self services features - 1.5 Business System Analysts. (114K in labor with 1.5 FTEs)</p>						
2016	186	0	0	186	2.0	1-Sided Adj
<p>Adding 2 FTE @ \$93k to support the Integrated Customer Data and Analytics. Scheduled to start in late 2014 (186K in Labor and 2.0 FTEs)</p>						
<b>2016 Total</b>	<b>1,015</b>	<b>156</b>	<b>0</b>	<b>1,171</b>	<b>11.8</b>	

Note: Totals may include rounding differences.

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**Determination of Adjusted-Recorded (Incurred Costs):**

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	1,684	1,533	1,694	1,641	1,724
Non-Labor	113	102	209	1,160	617
NSE	0	0	0	0	0
<b>Total</b>	<b>1,797</b>	<b>1,635</b>	<b>1,904</b>	<b>2,800</b>	<b>2,341</b>
FTE	17.4	16.7	18.7	17.5	18.4
<b>Adjustments (Nominal \$) **</b>					
Labor	275	288	380	380	477
Non-Labor	0	-47	46	0	147
NSE	0	0	0	0	0
<b>Total</b>	<b>275</b>	<b>240</b>	<b>425</b>	<b>380</b>	<b>624</b>
FTE	3.3	3.4	4.4	4.3	5.3
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	1,959	1,821	2,074	2,021	2,201
Non-Labor	113	54	255	1,160	764
NSE	0	0	0	0	0
<b>Total</b>	<b>2,072</b>	<b>1,875</b>	<b>2,329</b>	<b>3,180</b>	<b>2,965</b>
FTE	20.7	20.1	23.1	21.8	23.7
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	354	318	345	324	366
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>354</b>	<b>318</b>	<b>345</b>	<b>324</b>	<b>366</b>
FTE	3.9	3.6	4.0	3.6	4.0
<b>Escalation to 2013\$</b>					
Labor	236	159	114	56	0
Non-Labor	12	4	10	20	0
NSE	0	0	0	0	0
<b>Total</b>	<b>249</b>	<b>164</b>	<b>124</b>	<b>77</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	2,549	2,298	2,533	2,401	2,567
Non-Labor	126	59	265	1,180	764
NSE	0	0	0	0	0
<b>Total</b>	<b>2,675</b>	<b>2,357</b>	<b>2,798</b>	<b>3,581</b>	<b>3,330</b>
FTE	24.6	23.7	27.1	25.4	27.7

\* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

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 Workpaper: 200006.000 - Customer Service Other Office Ops and Technology

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	275	288	380	380	477
Non-Labor	0	-47	46	0	147
NSE	0	0	0	0	0
<b>Total</b>	<b>275</b>	<b>240</b>	<b>425</b>	<b>380</b>	<b>624</b>
FTE	3.3	3.4	4.4	4.3	5.3

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
2009	70	0	0	0.9	CCTR Transf	From 2200-0165.000	RMCHRIST20131 106102756210
Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-0165 in work group CCC-Support 200001 to cost center 2200-0331 in work group 200006 as part of the 2013 Budget Planning consolidation.							
2009	60	0	0	0.8	CCTR Transf	To 2200-2018.000	RMCHRIST20140 423085804147
Budget Planner transferred in 2014. This Budget Planner was transferred from cost center 2200-2018 in work paper 2RF003 to cost center 2200-0331 in work paper group 200006.							
2009	74	0	0	0.8	CCTR Transf	To 2200-2025.000	RMCHRIST20140 423121426320
Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-2025 in work paper 2FC008 to cost center 2200-0331 in work paper group 200006.							
2009	71	0	0	0.8	CCTR Transf	To 2200-0571.000	RMCHRIST20140 501145414793
Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-0571 in work paper 2FC004 to cost center 2200-0331 in work paper group 200006.							
<b>2009 Total</b>	<b>275</b>	<b>0</b>	<b>0</b>	<b>3.3</b>			
2010	71	0	0	0.9	CCTR Transf	From 2200-0165.000	RMCHRIST20131 106103124530
Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-0165 in work group CCC-Support 200001 to cost center 2200-0331 in work group 200006 as part of the 2013 Budget Planning consolidation.							
2010	0	-47	0	0.0	CCTR Transf	To 2200-0838.000	RMCHRIST20131 108144624783
Relocation Services in 2010 following reorg							

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 9. CS - Other Office Ops  
 Workpaper: 200006.000 - Customer Service Other Office Ops and Technology

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From Cctr</u>	<u>RefID</u>
2010	62	0	0	0.8	CCTR Transf	To 2200-2018.000	RMCHRIST20140 423090033280
Budget Planner transfered in 2014. This Budget Planner was transferred from cost center 2200-2018 in work paper 2RF003 to cost center 2200-0331 in work paper group 200006.							
2010	77	0	0	0.9	CCTR Transf	To 2200-2025.000	RMCHRIST20140 423121507910
Budget Planner transfered in 2013. This Budget Planner was transferred from cost center 2200-2025 in work paper 2FC008 to cost center 2200-0331 in work paper group 200006.							
2010	78	0	0	0.8	CCTR Transf	To 2200-0571.000	RMCHRIST20140 501145543480
Budget Planner transfered in 2013. This Budget Planner was transferred from cost center 2200-0571 in work paper 2FC004 to cost center 2200-0331 in work paper group 200006.							
<b>2010 Total</b>	<b>288</b>	<b>-47</b>	<b>0</b>	<b>3.4</b>			

2011	72	0	0	0.9	CCTR Transf	From 2200-0165.000	RMCHRIST20131 106103248243
Budget Planner transfered in 2013. This Budget Planner was transferred from cost center 2200-0165 in work group CCC-Support 200001 to cost center 2200-0331 in work group 200006 as part of the 2013 Budget Planning consolidation.							
2011	0	56	0	0.0	CCTR Transf	To 2200-0404.000	RMCHRIST20131 108090818207
Clickfox consulting fee in support of CCC Self-Service project							
2011	0	-11	0	0.0	CCTR Transf	To 2200-0838.000	RMCHRIST20131 108144821797
relocation costs associated with 2010 reorg							
2011	68	0	0	0.8	CCTR Transf	To 2200-2018.000	RMCHRIST20140 423091009987
Budget Planner transfered in 2014. This Budget Planner was transferred from cost center 2200-2018 in work paper 2RF003 to cost center 2200-0331 in work paper group 200006.							
2011	75	0	0	0.9	CCTR Transf	To 2200-2025.000	RMCHRIST20140 423152330897
Budget Planner transfered in 2013. This Budget Planner was transferred from cost center 2200-2025 in work paper 2FC008 to cost center 2200-0331 in work paper group 200006.							
2011	82	0	0	0.9	CCTR Transf	To 2200-0571.000	RMCHRIST20140 501145626073
Budget Planner transfered in 2013. This Budget Planner was transferred from cost center 2200-0571 in work paper 2FC004 to cost center 2200-0331 in work paper group 200006.							

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 9. CS - Other Office Ops  
 Workpaper: 200006.000 - Customer Service Other Office Ops and Technology

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From Cctr</u>	<u>RefID</u>
2011	82	0	0	0.9	CCTR Transf	To 2200-0437.000	RMCHRIST20140 502160001067

Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-0437 in work paper group 2FC004 to cost center 2200-0331 in work paper group 200006.

<b>2011 Total</b>	<b>380</b>	<b>46</b>	<b>0</b>	<b>4.4</b>			
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2012	73	0	0	0.8	CCTR Transf	From 2200-0165.000	RMCHRIST20131 106103427060
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Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-0165 in work group CCC-Support 200001 to cost center 2200-0331 in work group 200006 as part of the 2013 Budget Planning consolidation.

2012	68	0	0	0.8	CCTR Transf	To 2200-2018.000	RMCHRIST20140 423091143660
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Budget Planner transferred in 2014. This Budget Planner was transferred from cost center 2200-2018 in work paper 2RF003 to cost center 2200-0331 in work paper group 200006.

2012	70	0	0	0.9	CCTR Transf	To 2200-2025.000	RMCHRIST20140 423121634150
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Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-2025 in work paper 2FC008 to cost center 2200-0331 in work paper group 200006.

2012	84	0	0	0.9	CCTR Transf	To 2200-0571.000	RMCHRIST20140 501145839720
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Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-0571 in work paper 2FC004 to cost center 2200-0331 in work paper group 200006.

2012	84	0	0	0.9	CCTR Transf	To 2200-0437.000	RMCHRIST20140 502160046370
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Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-0437 in work paper group 2FC004 to cost center 2200-0331 in work paper group 200006.

<b>2012 Total</b>	<b>380</b>	<b>0</b>	<b>0</b>	<b>4.3</b>			
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2013	48	0	0	0.5	CCTR Transf	From 2200-0165.000	RMCHRIST20140 210135245937
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Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-0165 in work group CCC-Support 200001 to cost center 2200-0331 in work group 200006 as part of the 2013 Budget Planning consolidation.

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 9. CS - Other Office Ops  
 Workpaper: 200006.000 - Customer Service Other Office Ops and Technology

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From Cctr</u>	<u>RefID</u>
2013	0	-147	0	0.0	CCTR Transf	From 2200-2408.000	RMCHRIST20140 221092850977
<p>Incorrect transfer of 147K in consulting fees dedicated to customer capital program management from cost center 2200-2094 in work group 200006 Other Office Ops and Tech to cost center 2200-2408 in work group 200001 CCC-Support. Offsetting transfer was made to correctly show a total transfer of 147K in Non Labor from cost center 2200-2408 in work group 200001 CCC-Support to cost center 2200-2094 in work group 200006 Other Office Ops and Tech.</p>							
2013	0	294	0	0.0	CCTR Transf	From 2200-2408.000	RMCHRIST20140 221093245037
<p>Adjustment to reverse consulting fees incorrectly added to 2200-2408 and transfer over 147K in fees to work paper group 200006. Offsetting transfer was made to correctly show a total transfer of 147K in Non Labor from cost center 2200-2408 in work group 200001 CCC-Support to cost center 2200-2094 in work group 200006 Other Office Ops and Tech.</p>							
2013	75	0	0	0.9	CCTR Transf	To 2200-2018.000	RMCHRIST20140 423091731567
<p>Budget Planner Transferred in 2013. This Budget Planner was transferred from cost center 2200-2018 in work paper 2RF003 to cost center 2200-0331 in work paper group 200006. (46,667 in labor and .6 FTE)</p> <p>Budget Planner transferred in 2014. Transfer 2013 costs of new Budget Planner position created in 2013 from cost center 2200-2018 in work paper 2RF003 to cost center 2200-0331 in 200006. (28,514 in Labor and .3 FTE)</p>							
2013	29	0	0	0.3	CCTR Transf	To 2200-2402.000	RMCHRIST20140 423091932697
<p>Budget Planner Transferred in 2014. Transfer 2013 costs of new Budget Planner position created in 2013 from cost center 2200-2402 in work paper 2RF004 to cost center 2200-0331 in 200006.</p>							
2013	98	0	0	1.0	CCTR Transf	To 2200-0617.000	RMCHRIST20140 423110406410
<p>Budget Planner Transfers in 2013. Transfer 2013 Budget Planner dollars from cost center 2200-0617 in work paper group 2GD004 to cost center 2200-0331 in work paper group 200006.</p> <p>Field Service Region Planning and Analysis (40,378 in Labor and .4 FTE),          Support Service Planning and Analysis (34,134 in Labor and .3 FTE).          Fleet Planning &amp; Analysis (23,698 in Labor and .3 FTE).</p>							
2013	29	0	0	0.3	CCTR Transf	To 2200-2018.000	RMCHRIST20140 423113222150
<p>Budget Planner transferred in 2014. This Budget Planner was transferred from cost center 2200-2018 in work paper 2RF003 to cost center 2200-0331 in work paper group 200006.</p>							

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 9. CS - Other Office Ops  
 Workpaper: 2OO006.000 - Customer Service Other Office Ops and Technology

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From Cctr</u>	<u>RefID</u>
2013	5	0	0	0.1	CCTR Transf	To 2200-2025.000	RMCHRIST20140 423121741837
Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-2025 in work paper 2FC008 to cost center 2200-0331 in work paper group 2OO006.							
2013	50	0	0	0.5	CCTR Transf	To 2200-0357.000	RMCHRIST20140 423121843740
Budget Planner Transfer in 2013. Transfer 2013 Budget Planner dollars from cost center 2200-0357 in work paper group 2GFC008 to cost center 2200-0331 in work paper group 2OO006.							
2013	24	0	0	0.4	CCTR Transf	To 2200-2142.000	RMCHRIST20140 423122353970
Budget Planner Transfer in 2013. Transfer 2013 Budget Planner dollars from cost center 2200-2142 in work paper group 2SS005 to cost center 2200-0331 in work paper group 2OO006.							
2013	12	0	0	0.2	CCTR Transf	To 2200-2352.000	RMCHRIST20140 423122450737
Budget Planner Transfer in 2013. Transfer 2013 Budget Planner dollars from cost center 2200-2352 in work paper group 2SS007 to cost center 2200-0331 in work paper group 2OO006.							
2013	17	0	0	0.2	CCTR Transf	To 2200-2012.000	RMCHRIST20140 423122926577
Budget Planner Transfer in 2013. Transfer 2013 Budget Planner dollars from cost center 2200-2012 in work paper group 2EV000 to cost center 2200-0331 in work paper group 2OO006.							
2013	8	0	0	0.1	CCTR Transf	To 2200-2215.000	RMCHRIST20140 423132241267
Budget Planner Transfer in 2013. Transfer 2013 Budget Planner dollars from cost center 2200-2215 in work paper group 2IN001 to cost center 2200-0331 in work paper group 2OO006.							
2013	39	0	0	0.4	CCTR Transf	To 2200-0571.000	RMCHRIST20140 501145929563
Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-0571 in work paper 2FC004 to cost center 2200-0331 in work paper group 2OO006.							
2013	44	0	0	0.4	CCTR Transf	To 2200-0437.000	RMCHRIST20140 502160522080
Budget Planner transferred in 2013. This Budget Planner was transferred from cost center 2200-0437 in work paper group 2FC004 to cost center 2200-0331 in work paper group 2OO006.							
<b>2013 Total</b>	<b>477</b>	<b>147</b>	<b>0</b>	<b>5.3</b>			

Note: Totals may include rounding differences.

**Beginning of Workpaper**  
**200007.000 - Measurement Data Ops (MDO)**

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 10. Meas Data Ops (MDO)  
 Workpaper: 200007.000 - Measurement Data Ops (MDO)

**Activity Description:**

The Measurement Data Operations (MDO) group monitors and maintains accurate and timely measurement reporting for approximately 1,303 large gas volume meters equipped with electronic measurement devices collected by the Measurement Collection System (MCS). The MDO group provides support to key departments on the processing and reporting of measurement and gas quality data pertaining to customers, suppliers, and storage operations.

**Forecast Explanations:**

**Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project MDO O&M costs. This method is most appropriate because 2013 workforce size provides an appropriate estimation of the staffing required to continue business, regulatory and systems support in the management of complex customer accounts for gas measurement activities.

**Non-Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project MDO O&M costs. Non-labor costs consist mainly of telecommunications costs required to transmit meter usage data electronically and are driven by meter count so the base year forecast provides the most up to date starting point for projecting telemetry costs.

**NSE - Base YR Rec**

NSE is not applicable to this workgroup.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		681	765	845	930	875	875	875	875	
Non-Labor		458	441	461	475	576	578	579	581	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1,139</b>	<b>1,206</b>	<b>1,306</b>	<b>1,405</b>	<b>1,451</b>	<b>1,453</b>	<b>1,454</b>	<b>1,456</b>	
FTE		9.3	10.3	11.4	12.5	11.4	11.4	11.4	11.4	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 10. Meas Data Ops (MDO)  
 Workpaper: 200007.000 - Measurement Data Ops (MDO)

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	875	875	875	0	0	0	875	875	875
Non-Labor	Base YR Rec	576	576	576	2	3	5	578	579	581
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>1,451</b>	<b>1,451</b>	<b>1,451</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>1,453</b>	<b>1,454</b>	<b>1,456</b>
FTE	Base YR Rec	11.4	11.4	11.4	0.0	0.0	0.0	11.4	11.4	11.4

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>
2014	0	2	0	2	0.0	1-Sided Adj

To adjust for the increase in telecommunications costs attributed to meter growth. (\$2K Non Labor)

<b>2014 Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0.0</b>	
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2015	0	3	0	3	0.0	1-Sided Adj
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To adjust for the increase in telecommunications costs attributed to meter growth. (\$3K Non Labor)

<b>2015 Total</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0.0</b>	
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2016	0	5	0	5	0.0	1-Sided Adj
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To adjust for the increase in telecommunications costs attributed to meter growth.(\$5K Non Labor) See MDO 200007.000 Supplemental Workpaper 1 for details.

<b>2016 Total</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>0.0</b>	
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Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 10. Meas Data Ops (MDO)  
Workpaper: 200007.000 - Measurement Data Ops (MDO)

**Determination of Adjusted-Recorded (Incurred Costs):**

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	523	606	692	783	750
Non-Labor	413	408	444	467	576
NSE	0	0	0	0	0
<b>Total</b>	<b>936</b>	<b>1,014</b>	<b>1,135</b>	<b>1,250</b>	<b>1,326</b>
FTE	7.8	8.7	9.8	10.7	9.7
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	523	606	692	783	750
Non-Labor	413	408	444	467	576
NSE	0	0	0	0	0
<b>Total</b>	<b>936</b>	<b>1,014</b>	<b>1,135</b>	<b>1,250</b>	<b>1,326</b>
FTE	7.8	8.7	9.8	10.7	9.7
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	95	106	115	125	125
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>95</b>	<b>106</b>	<b>115</b>	<b>125</b>	<b>125</b>
FTE	1.5	1.6	1.7	1.8	1.6
<b>Escalation to 2013\$</b>					
Labor	63	53	38	22	0
Non-Labor	45	33	18	8	0
NSE	0	0	0	0	0
<b>Total</b>	<b>108</b>	<b>86</b>	<b>56</b>	<b>30</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	681	765	845	930	875
Non-Labor	458	441	461	475	576
NSE	0	0	0	0	0
<b>Total</b>	<b>1,139</b>	<b>1,206</b>	<b>1,306</b>	<b>1,405</b>	<b>1,451</b>
FTE	9.3	10.3	11.5	12.5	11.3

\* 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  
2016 GRC - APP  
Non-Shared Service Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 10. Meas Data Ops (MDO)  
 Workpaper: 200007.000 - Measurement Data Ops (MDO)

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2009 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2010 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2011 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2012 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Supplemental Workpapers for Workpaper 200007.000**

MDO 200007.000 Supplemental Workpaper 1  
 Telecommunications Costs Due to Meter Growth

	A	B	C	D	E	F	G	H	I	
2		In 2013\$ (000) Incurred Costs								
3		Adjusted-Recorded					Adjusted-Forecast			
4		2009	2010	2011	2012	2013	2014	2015	2016	
5	MDO Telecommunications Cost	\$ 438	\$ 421	\$ 443	\$ 455	\$ 562	\$ 563	\$ 565	\$ 567	
6	Meter Growth Rate						0.31%	0.27%	0.28%	
7	*Incremental Telecommunications Dollars						\$ 2	\$ 2	\$ 2	
8	Total Dollars Above Base Year						\$ 2	\$ 3	\$ 5	
9	Incremental Telecommunications Dollars are derived by multiplying the previous years telecommunication costs by the forecasted years growth rate .e.g. Cell F5*G6.									

Southern California Gas Company  
 2016 GRC - APP  
 Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman

**Summary of Shared Services Workpapers:**

Description	In 2013 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
A. Customer Service Office Operations	6,002	6,032	6,032	6,032
<b>Total</b>	<b>6,002</b>	<b>6,032</b>	<b>6,032</b>	<b>6,032</b>

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Cost Center: VARIOUS

**Summary for Category: A. Customer Service Office Operations**

	In 2013\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	4,749	4,779	4,779	4,779
Non-Labor	1,249	1,249	1,249	1,249
NSE	4	4	4	4
<b>Total</b>	<b>6,002</b>	<b>6,032</b>	<b>6,032</b>	<b>6,032</b>
FTE	62.0	62.3	62.3	62.3

**Cost Centers belonging to this Category:**

**2200-0354.000 MAJOR MARKET CREDIT and COLLECTIONS**

Labor	1,182	1,212	1,212	1,212
Non-Labor	306	306	306	306
NSE	0	0	0	0
<b>Total</b>	<b>1,488</b>	<b>1,518</b>	<b>1,518</b>	<b>1,518</b>
FTE	13.4	13.7	13.7	13.7

**2200-0355.000 PAYMENT PROCESSING**

Labor	2,739	2,739	2,739	2,739
Non-Labor	892	892	892	892
NSE	4	4	4	4
<b>Total</b>	<b>3,635</b>	<b>3,635</b>	<b>3,635</b>	<b>3,635</b>
FTE	42.7	42.7	42.7	42.7

**2200-2240.000 SR VP CUSTSRVC/INNOVATION/BUS STRATEGY**

Labor	401	401	401	401
Non-Labor	51	51	51	51
NSE	0	0	0	0
<b>Total</b>	<b>452</b>	<b>452</b>	<b>452</b>	<b>452</b>
FTE	1.6	1.6	1.6	1.6

**2200-2247.000 MANAGER OF REMITTANCE PROCESSING**

Labor	427	427	427	427
Non-Labor	0	0	0	0
NSE	0	0	0	0
<b>Total</b>	<b>427</b>	<b>427</b>	<b>427</b>	<b>427</b>
FTE	4.3	4.3	4.3	4.3

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2200-0354.000 - MAJOR MARKET CREDIT and COLLECTIONS**

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 1. Major Market Credit & Collections  
 Cost Center: 2200-0354.000 - MAJOR MARKET CREDIT and COLLECTIONS

**Activity Description:**

The Major Market Credit & Collections (MMCC) group is responsible for the credit analysis and collection follow up on large Commercial and Industrial customers and other third party entities at both SCG and SDG&E.

**Forecast Explanations:**

**Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Major Market Credit & Collections O&M costs. 2013 represents the most recent recorded labor and non-labor costs. Adjustments for full year staffing levels were made to the forecast years to reflect full staffing level.

**Non-Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Major Market Credit & Collections O&M costs. 2013 represents the most recent recorded labor and non-labor costs.

**NSE - Base YR Rec**

NSE is not applicable to this workgroup.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		1,252	1,297	1,269	1,232	1,182	1,212	1,212	1,212	
Non-Labor		345	316	325	368	306	306	306	306	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1,596</b>	<b>1,613</b>	<b>1,594</b>	<b>1,600</b>	<b>1,488</b>	<b>1,518</b>	<b>1,518</b>	<b>1,518</b>	
FTE		14.1	15.0	14.2	13.7	13.4	13.7	13.7	13.7	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 1. Major Market Credit & Collections  
 Cost Center: 2200-0354.000 - MAJOR MARKET CREDIT and COLLECTIONS

**Cost Center Allocations (Incurred Costs):**

	2013 Adjusted-Recorded					2014 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	2	0	2	0.00	0	2	0	2	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	1,182	304	0	1,486	13.44	1,212	304	0	1,516	13.74
<b>Total Incurred</b>	<b>1,182</b>	<b>306</b>	<b>0</b>	<b>1,488</b>	<b>13.44</b>	<b>1,212</b>	<b>306</b>	<b>0</b>	<b>1,518</b>	<b>13.74</b>
<b>% Allocation</b>										
Retained	50.61%	50.61%				50.77%	50.77%			
SEU	49.39%	49.39%				49.23%	49.23%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

	2015 Adjusted-Forecast					2016 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	2	0	2	0.00	0	2	0	2	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	1,212	304	0	1,516	13.74	1,212	304	0	1,516	13.74
<b>Total Incurred</b>	<b>1,212</b>	<b>306</b>	<b>0</b>	<b>1,518</b>	<b>13.74</b>	<b>1,212</b>	<b>306</b>	<b>0</b>	<b>1,518</b>	<b>13.74</b>
<b>% Allocation</b>										
Retained	50.77%	50.77%				50.77%	50.77%			
SEU	49.23%	49.23%				49.23%	49.23%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 1. Major Market Credit & Collections  
Cost Center: 2200-0354.000 - MAJOR MARKET CREDIT and COLLECTIONS

**Cost Center Allocation Percentage Drivers/Methodology:**

**Cost Center Allocation Percentage for 2013**

The MMCC group is responsible for the credit analysis and collection follow-up on large commercial and industrial customers and other third party entities. Therefore, our primary driver to direct shared service dollars was an allocation based on the number of hours required to complete the credit analysis of various companies / entities for SCG and SDG&E. For 2013, we used historical activity from December 1, 2011 through November 30, 2012. This activity represented an allocation of 50.61% (SCG) and 49.39% (SDG&E) based on the total hours worked on SCG and SDG&E credit analyses within this timeframe.

**Cost Center Allocation Percentage for 2014**

The MMCC group is responsible for the credit analysis and collection follow-up on large commercial and industrial customers and other third party entities. Therefore, our primary driver to direct shared service dollars was an allocation based on the number of hours required to complete the credit analysis of various companies / entities for SCG and SDG&E. For 2014 through 2016, we used historical activity from December 1, 2012 through November 30, 2013. This activity represented an allocation of 50.77% (SCG) and 49.23% (SDG&E) based on the total hours worked on SCG and SDG&E credit analyses within this timeframe.

**Cost Center Allocation Percentage for 2015**

The MMCC group is responsible for the credit analysis and collection follow-up on large commercial and industrial customers and other third party entities. Therefore, our primary driver to direct shared service dollars was an allocation based on the number of hours required to complete the credit analysis of various companies / entities for SCG and SDG&E. For 2014 through 2016, we used historical activity from December 1, 2012 through November 30, 2013. This activity represented an allocation of 50.77% (SCG) and 49.23% (SDG&E) based on the total hours worked on SCG and SDG&E credit analyses within this timeframe.

**Cost Center Allocation Percentage for 2016**

The MMCC group is responsible for the credit analysis and collection follow-up on large commercial and industrial customers and other third party entities. Therefore, our primary driver to direct shared service dollars was an allocation based on the number of hours required to complete the credit analysis of various companies / entities for SCG and SDG&E. For 2014 through 2016, we used historical activity from December 1, 2012 through November 30, 2013. This activity represented an allocation of 50.77% (SCG) and 49.23% (SDG&E) based on the total hours worked on SCG and SDG&E credit analyses within this timeframe.

*Note: Totals may include rounding differences.*

Southern California Gas Company  
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Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 1. Major Market Credit & Collections  
 Cost Center: 2200-0354.000 - MAJOR MARKET CREDIT and COLLECTIONS

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	1,182	1,182	1,182	30	30	30	1,212	1,212	1,212
Non-Labor	Base YR Rec	306	306	306	0	0	0	306	306	306
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>1,488</b>	<b>1,488</b>	<b>1,488</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>1,518</b>	<b>1,518</b>	<b>1,518</b>
FTE	Base YR Rec	13.4	13.4	13.4	0.3	0.3	0.3	13.7	13.7	13.7

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	30	0	0	30	0.3	1-Sided Adj

Base year numbers reflect approximately 9 months of a Manager's salary (\$105K in Labor and .7FTE). An adjustment of \$30K in Labor dollars and .3FTE has been made to reflect full year staffing levels in forecast years.

<b>2014 Total</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>0.3</b>	
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2015	30	0	0	30	0.3	1-Sided Adj
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Base year numbers reflect approximately 9 months of a Manager's salary (\$105K in Labor and .7FTE). An adjustment of \$30K in Labor dollars and .3FTE has been made to reflect full year staffing levels in forecast years.

<b>2015 Total</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>0.3</b>	
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2016	30	0	0	30	0.3	1-Sided Adj
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Base year numbers reflect approximately 9 months of a Manager's salary (\$105K in Labor and .7FTE). An adjustment of \$30K in Labor dollars and .3FTE has been made to reflect full year staffing levels in forecast years.

<b>2016 Total</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>0.3</b>	
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*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 1. Major Market Credit & Collections  
Cost Center: 2200-0354.000 - MAJOR MARKET CREDIT and COLLECTIONS

**Determination of Adjusted-Recorded (Incurred Costs):**

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	965	1,029	1,042	1,039	1,014
Non-Labor	314	294	311	360	306
NSE	0	0	0	0	0
<b>Total</b>	<b>1,278</b>	<b>1,323</b>	<b>1,354</b>	<b>1,399</b>	<b>1,319</b>
FTE	11.9	12.7	12.3	11.7	11.5
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	-1	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>-1</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	-0.1	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	965	1,029	1,042	1,039	1,014
Non-Labor	314	294	311	360	306
NSE	0	0	0	0	0
<b>Total</b>	<b>1,278</b>	<b>1,323</b>	<b>1,353</b>	<b>1,399</b>	<b>1,319</b>
FTE	11.9	12.7	12.2	11.7	11.5
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	174	180	173	166	168
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>174</b>	<b>180</b>	<b>173</b>	<b>166</b>	<b>168</b>
FTE	2.2	2.3	2.1	1.9	1.9
<b>Escalation to 2013\$</b>					
Labor	113	88	54	27	0
Non-Labor	31	21	14	8	0
NSE	0	0	0	0	0
<b>Total</b>	<b>144</b>	<b>110</b>	<b>68</b>	<b>35</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	1,252	1,297	1,269	1,232	1,182
Non-Labor	345	316	325	368	306
NSE	0	0	0	0	0
<b>Total</b>	<b>1,596</b>	<b>1,613</b>	<b>1,594</b>	<b>1,600</b>	<b>1,488</b>
FTE	14.1	15.0	14.3	13.6	13.4

\* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 1. Major Market Credit & Collections  
 Cost Center: 2200-0354.000 - MAJOR MARKET CREDIT and COLLECTIONS

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	-0.588	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>-0.588</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	-0.1	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2009 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2010 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
2011	-0.588	0	0	-0.1	1-Sided Adj	N/A	RMCHRIST20131 106121901323
Pursuant to CPUC decision 12-12-037 Compression Service Tariff activities are excluded from base rates							
<b>2011 Total</b>	<b>-0.588</b>	<b>0</b>	<b>0</b>	<b>-0.1</b>			
<b>2012 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

**Beginning of Workpaper**  
**2200-0355.000 - PAYMENT PROCESSING**

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 2. PAYMENT PROCESSING  
 Cost Center: 2200-0355.000 - PAYMENT PROCESSING

**Activity Description:**

Payment Processing expenses cover the cost of processing payments mailed to SoCalGas through the USPS as well as electronic payments received through home banking, electronic data interchange, wire transfers and electronic pay programs, including direct debit, pay-by-phone, and My Account. Additional functions performed by Payment Processing include handling returned checks, investigating payments received without associated account information, processing of all miscellaneous non-gas revenues (e.g., oil lease revenues) and responding to payment inquiries from banking institutions and authorized payment locations.

**Forecast Explanations:**

**Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Payment Processing O&M costs. The costs fluctuated from 2009 through 2012. However, 2013 cost levels were below historical averages and a good representation for the forecast because they are in-line with the workgroup's TY 2016 estimated labor and non-labor expenses with no changes anticipated.

**Non-Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Payment Processing O&M costs. The costs fluctuated from 2009 through 2012. However, 2013 cost levels were below historical averages and a good representation for the forecast because they are in-line with the workgroup's TY 2016 estimated labor and non-labor expenses with no changes anticipated.

**NSE - Base YR Rec**

The Base Year 2013 forecast was used based on anticipated volumes.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		3,099	2,971	2,897	3,055	2,739	2,739	2,739	2,739	
Non-Labor		1,185	853	859	871	892	892	892	892	
NSE		5	6	6	5	4	4	4	4	
<b>Total</b>		<b>4,289</b>	<b>3,829</b>	<b>3,762</b>	<b>3,930</b>	<b>3,635</b>	<b>3,635</b>	<b>3,635</b>	<b>3,635</b>	
FTE		48.5	46.0	44.4	46.3	42.7	42.7	42.7	42.7	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 2. PAYMENT PROCESSING  
 Cost Center: 2200-0355.000 - PAYMENT PROCESSING

**Cost Center Allocations (Incurred Costs):**

	2013 Adjusted-Recorded					2014 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	359	95	0	454	5.39	359	95	0	454	5.39
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	2,379	797	4	3,180	37.36	2,379	797	4	3,180	37.36
<b>Total Incurred</b>	<b>2,738</b>	<b>892</b>	<b>4</b>	<b>3,634</b>	<b>42.75</b>	<b>2,738</b>	<b>892</b>	<b>4</b>	<b>3,634</b>	<b>42.75</b>
<b>% Allocation</b>										
Retained	89.55%	89.55%				89.55%	89.55%			
SEU	10.45%	10.45%				10.45%	10.45%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

	2015 Adjusted-Forecast					2016 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	359	95	0	454	5.39	359	95	0	454	5.39
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	2,379	797	4	3,180	37.36	2,379	797	4	3,180	37.36
<b>Total Incurred</b>	<b>2,738</b>	<b>892</b>	<b>4</b>	<b>3,634</b>	<b>42.75</b>	<b>2,738</b>	<b>892</b>	<b>4</b>	<b>3,634</b>	<b>42.75</b>
<b>% Allocation</b>										
Retained	89.55%	89.55%				89.55%	89.55%			
SEU	10.45%	10.45%				10.45%	10.45%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

Southern California Gas Company  
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Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 2. PAYMENT PROCESSING  
Cost Center: 2200-0355.000 - PAYMENT PROCESSING

**Cost Center Allocation Percentage Drivers/Methodology:**

**Cost Center Allocation Percentage for 2013**

Based on the total payments processed for each company the allocation percentage is derived and applied to the direct costs posted to this cost center. Annually, the allocation percentage is updated with data reported at year-end. Annual updates for 2013 reflect Year-end 2013 data.

**Cost Center Allocation Percentage for 2014**

Based on the total payments processed for each company the allocation percentage is derived, and applied to the direct costs posted to this cost center. Annually, the allocation percentage is updated with data reported at year-end. Annual updates for 2014 reflect Year-end 2013 data.

**Cost Center Allocation Percentage for 2015**

Based on the total payments processed for each company the allocation percentage is derived, and applied to the direct costs posted to this cost center. Annually, the allocation percentage is updated with data reported at year-end. Annual updates for 2015 reflect Year-end 2013 data.

**Cost Center Allocation Percentage for 2016**

Based on the total payments processed for each company the allocation percentage is derived, and applied to the direct costs posted to this cost center. Annually, the allocation percentage is updated with data reported at year-end. Annual updates for 2016 reflect Year-end 2013 data.

*Note: Totals may include rounding differences.*

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 Category: A. Customer Service Office Operations  
 Category-Sub: 2. PAYMENT PROCESSING  
 Cost Center: 2200-0355.000 - PAYMENT PROCESSING

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	2,739	2,739	2,739	0	0	0	2,739	2,739	2,739
Non-Labor	Base YR Rec	892	892	892	0	0	0	892	892	892
NSE	Base YR Rec	4	4	4	0	0	0	4	4	4
<b>Total</b>		<b>3,635</b>	<b>3,635</b>	<b>3,635</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,635</b>	<b>3,635</b>	<b>3,635</b>
FTE	Base YR Rec	42.7	42.7	42.7	0.0	0.0	0.0	42.7	42.7	42.7

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 2. PAYMENT PROCESSING  
Cost Center: 2200-0355.000 - PAYMENT PROCESSING

**Determination of Adjusted-Recorded (Incurred Costs):**

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	2,388	2,357	2,379	2,576	2,348
Non-Labor	1,083	800	828	857	896
NSE	0	0	0	0	0
<b>Total</b>	<b>3,472</b>	<b>3,157</b>	<b>3,207</b>	<b>3,432</b>	<b>3,245</b>
FTE	40.8	39.0	37.9	39.7	36.6
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	-5	-5	-5	-5	-4
NSE	5	5	5	5	4
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	2,388	2,357	2,379	2,576	2,348
Non-Labor	1,078	795	823	852	892
NSE	5	5	5	5	4
<b>Total</b>	<b>3,472</b>	<b>3,157</b>	<b>3,207</b>	<b>3,432</b>	<b>3,245</b>
FTE	40.8	39.0	37.9	39.7	36.6
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	432	412	395	412	390
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>432</b>	<b>412</b>	<b>395</b>	<b>412</b>	<b>390</b>
FTE	7.7	7.0	6.5	6.6	6.2
<b>Escalation to 2013\$</b>					
Labor	279	202	123	67	0
Non-Labor	107	58	37	19	0
NSE	0	0	0	0	0
<b>Total</b>	<b>386</b>	<b>260</b>	<b>160</b>	<b>86</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	3,099	2,971	2,897	3,055	2,739
Non-Labor	1,185	853	859	871	892
NSE	5	6	6	5	4
<b>Total</b>	<b>4,289</b>	<b>3,829</b>	<b>3,762</b>	<b>3,930</b>	<b>3,635</b>
FTE	48.5	46.0	44.4	46.3	42.8

\* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 2. PAYMENT PROCESSING  
 Cost Center: 2200-0355.000 - PAYMENT PROCESSING

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	0	0	0
Non-Labor	-5	-5	-5	-5	-4
NSE	5	5	5	5	4
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
2009	0	-5	5	0.0	1-Sided Adj	N/A	TPGMG20140520 153832460
Move postage to NSE							
<b>2009 Total</b>	<b>0</b>	<b>-5</b>	<b>5</b>	<b>0.0</b>			
2010	0	-5	5	0.0	1-Sided Adj	N/A	TPGMG20140520 153939973
Move postage to NSE							
<b>2010 Total</b>	<b>0</b>	<b>-5</b>	<b>5</b>	<b>0.0</b>			
2011	0	-5	5	0.0	1-Sided Adj	N/A	TPGMG20140520 154022667
Move postage to NSE							
<b>2011 Total</b>	<b>0</b>	<b>-5</b>	<b>5</b>	<b>0.0</b>			
2012	0	-5	5	0.0	1-Sided Adj	N/A	TPGMG20140520 154107493
Move postage to NSE							
<b>2012 Total</b>	<b>0</b>	<b>-5</b>	<b>5</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 2. PAYMENT PROCESSING  
 Cost Center: 2200-0355.000 - PAYMENT PROCESSING

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
2013	0	-4	4	0.0	1-Sided Adj	N/A	RMCHRIST20140 219094350127
Postage moved to NSE							
<b>2013 Total</b>	<b>0</b>	<b>-4</b>	<b>4</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2200-2240.000 - SR VP CUSTSRVC/INNOVATION/BUS STRATEGY**

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 3. SR VP CUSTSRVC/INNOVATION/BUS STRATEGY  
 Cost Center: 2200-2240.000 - SR VP CUSTSRVC/INNOVATION/BUS STRATEGY

**Activity Description:**

Executive Leadership services/Intellectual properties to guiding the formulation of service policies supporting improved customer satisfaction, customer communications, business strategy & development, environmental and legislative, supply management, biofuel development and natural gas vehicles within gas service.

**Forecast Explanations:**

**Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Senior VP of Customer Service Innovation & Strategy O&M costs. This method is most appropriate because this position was created in late 2012 and any historical average or linear trend would not accurately reflect the dollars needed to support this cost category. Additionally, this methodology is appropriate and a good representation for the forecast because it is reflective of the workgroup's TY 2016 estimated labor and non-labor expenses and there are no changes anticipated.

**Non-Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Senior VP of Customer Service Innovation & Strategy O&M costs. This method is most appropriate because this position was created in late 2012 and any historical average or linear trend would not accurately reflect the dollars needed to support this cost category. Additionally, this methodology is appropriate and a good representation for the forecast because it is reflective of the workgroup's TY 2016 estimated labor and non-labor expenses and there are no changes anticipated.

**NSE - Base YR Rec**

Base Year 2013

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	146	401	401	401	401	
Non-Labor		0	0	0	16	51	51	51	51	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>161</b>	<b>452</b>	<b>452</b>	<b>452</b>	<b>452</b>	
FTE		0.0	0.0	0.0	0.5	1.6	1.6	1.6	1.6	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
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Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 3. SR VP CUSTSRVC/INNOVATION/BUS STRATEGY  
 Cost Center: 2200-2240.000 - SR VP CUSTSRVC/INNOVATION/BUS STRATEGY

**Cost Center Allocations (Incurred Costs):**

	2013 Adjusted-Recorded					2014 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	8	0	8	0.00	0	8	0	8	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	401	43	0	444	1.62	401	43	0	444	1.62
<b>Total Incurred</b>	<b>401</b>	<b>51</b>	<b>0</b>	<b>452</b>	<b>1.62</b>	<b>401</b>	<b>51</b>	<b>0</b>	<b>452</b>	<b>1.62</b>
<b>% Allocation</b>										
Retained	96.25%	96.25%				96.25%	96.25%			
SEU	3.75%	3.75%				3.75%	3.75%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

	2015 Adjusted-Forecast					2016 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	8	0	8	0.00	0	8	0	8	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	401	43	0	444	1.62	401	43	0	444	1.62
<b>Total Incurred</b>	<b>401</b>	<b>51</b>	<b>0</b>	<b>452</b>	<b>1.62</b>	<b>401</b>	<b>51</b>	<b>0</b>	<b>452</b>	<b>1.62</b>
<b>% Allocation</b>										
Retained	96.25%	96.25%				96.25%	96.25%			
SEU	3.75%	3.75%				3.75%	3.75%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

Southern California Gas Company  
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Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 3. SR VP CUSTSRVC/INNOVATION/BUS STRATEGY  
Cost Center: 2200-2240.000 - SR VP CUSTSRVC/INNOVATION/BUS STRATEGY

**Cost Center Allocation Percentage Drivers/Methodology:**

**Cost Center Allocation Percentage for 2013**

SVP has overall responsibility for the business and financial results of the Customer Service, Innovation & Business Strategy functions at SoCalGas and some limited activities at SDG&E. The SDG&E activity is primarily for remittance processing. Allocation for 2013 reflects year-end 2013 data.

**Cost Center Allocation Percentage for 2014**

SVP has overall responsibility for the business and financial results of the Customer Service, Innovation & Business Strategy functions at SoCalGas and some limited activities at SDG&E. The SDG&E activity is primarily for remittance processing. Allocation of split was based on the O&M budget associated with organizational responsibilities of the SVP for each utility on 1/1/14.

**Cost Center Allocation Percentage for 2015**

SVP has overall responsibility for the business and financial results of the Customer Service, Innovation & Business Strategy functions at SoCalGas and some limited activities at SDG&E. The SDG&E activity is primarily for remittance processing. Allocation of split was based on the O&M budget associated with organizational responsibilities of the SVP for each utility on 1/1/14.

**Cost Center Allocation Percentage for 2016**

SVP has overall responsibility for the business and financial results of the Customer Service, Innovation & Business Strategy functions at SoCalGas and some limited activities at SDG&E. The SDG&E activity is primarily for remittance processing. Allocation of split was based on the O&M budget associated with organizational responsibilities of the SVP for each utility on 1/1/14.

*Note: Totals may include rounding differences.*

Southern California Gas Company  
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Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 3. SR VP CUSTSRVC/INNOVATION/BUS STRATEGY  
 Cost Center: 2200-2240.000 - SR VP CUSTSRVC/INNOVATION/BUS STRATEGY

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	401	401	401	0	0	0	401	401	401
Non-Labor	Base YR Rec	51	51	51	0	0	0	51	51	51
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>452</b>	<b>452</b>	<b>452</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>452</b>	<b>452</b>	<b>452</b>
FTE	Base YR Rec	1.6	1.6	1.6	0.0	0.0	0.0	1.6	1.6	1.6

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
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Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 3. SR VP CUSTSRVC/INNOVATION/BUS STRATEGY  
 Cost Center: 2200-2240.000 - SR VP CUSTSRVC/INNOVATION/BUS STRATEGY

**Determination of Adjusted-Recorded (Incurred Costs):**

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	123	344
Non-Labor	0	0	0	15	51
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>138</b>	<b>395</b>
FTE	0.0	0.0	0.0	0.4	1.4
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	123	344
Non-Labor	0	0	0	15	51
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>138</b>	<b>395</b>
FTE	0.0	0.0	0.0	0.4	1.4
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	20	57
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>57</b>
FTE	0.0	0.0	0.0	0.1	0.2
<b>Escalation to 2013\$</b>					
Labor	0	0	0	3	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	146	401
Non-Labor	0	0	0	16	51
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>161</b>	<b>452</b>
FTE	0.0	0.0	0.0	0.5	1.6

\* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

Southern California Gas Company  
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Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 3. SR VP CUSTSRVC/INNOVATION/BUS STRATEGY  
 Cost Center: 2200-2240.000 - SR VP CUSTSRVC/INNOVATION/BUS STRATEGY

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2009 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2010 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2011 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2012 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2200-2247.000 - MANAGER OF REMITTANCE PROCESSING**

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 4. MANAGER OF REMITTANCE PROCESSING  
 Cost Center: 2200-2247.000 - MANAGER OF REMITTANCE PROCESSING

**Activity Description:**

This cost center is used to track labor and non-labor expenditures associated with researching, advisory, and strategic planning services provided to both SCG and SDG&E by the Manager of Remittance Processing and supporting staff.

**Forecast Explanations:**

**Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Manager of Remittance Processing O&M costs. 2013 cost levels were similar historical averages and a good representation for the forecast because they are in-line with the workgroup's TY 2016 estimated labor and non-labor expenses with no changes anticipated.

**Non-Labor - Base YR Rec**

A Base Year forecasting methodology was applied to project Manager of Remittance Processing O&M costs. 2013 cost levels were similar historical averages and a good representation for the forecast because they are in-line with the workgroup's TY 2016 estimated labor and non-labor expenses with no changes anticipated.

**NSE - Base YR Rec**

NSE is not applicable to this workgroup.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		447	443	431	436	427	427	427	427	
Non-Labor		1	2	2	3	0	0	0	0	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>448</b>	<b>445</b>	<b>433</b>	<b>438</b>	<b>427</b>	<b>427</b>	<b>427</b>	<b>427</b>	
FTE		4.6	4.6	4.5	4.5	4.3	4.3	4.3	4.3	

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 4. MANAGER OF REMITTANCE PROCESSING  
 Cost Center: 2200-2247.000 - MANAGER OF REMITTANCE PROCESSING

**Cost Center Allocations (Incurred Costs):**

	2013 Adjusted-Recorded					2014 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	47	0	0	47	0.38	47	0	0	47	0.38
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	381	0	0	381	3.89	381	0	0	381	3.89
<b>Total Incurred</b>	<b>428</b>	<b>0</b>	<b>0</b>	<b>428</b>	<b>4.27</b>	<b>428</b>	<b>0</b>	<b>0</b>	<b>428</b>	<b>4.27</b>
<b>% Allocation</b>										
Retained	78.94%	78.94%				77.08%	77.08%			
SEU	21.06%	21.06%				22.92%	22.92%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

	2015 Adjusted-Forecast					2016 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	47	0	0	47	0.38	47	0	0	47	0.38
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	381	0	0	381	3.89	381	0	0	381	3.89
<b>Total Incurred</b>	<b>428</b>	<b>0</b>	<b>0</b>	<b>428</b>	<b>4.27</b>	<b>428</b>	<b>0</b>	<b>0</b>	<b>428</b>	<b>4.27</b>
<b>% Allocation</b>										
Retained	77.08%	77.08%				77.08%	77.08%			
SEU	22.92%	22.92%				22.92%	22.92%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 4. MANAGER OF REMITTANCE PROCESSING  
Cost Center: 2200-2247.000 - MANAGER OF REMITTANCE PROCESSING

**Cost Center Allocation Percentage Drivers/Methodology:**

**Cost Center Allocation Percentage for 2013**

This cost center is used to track expenditures Labor and Non-Labor, associated with managerial, advisory, and strategic planning services provided to both SCG and SDG&E by the Manager of Remittance Processing and Supporting Staff. Posting to this cost center will include the Manager of Remittance Processing, the Project Manager, the Business Advisor, the Business Systems Analyst, and the Administrative Assistant, whose services encompass Customer Data Distribution, Customer Remittance Processing, and the BranchOffices, including Authorized Payment Locations.

**Cost Center Allocation Percentage for 2014**

This cost center is used to track expenditures Labor and Non-Labor, associated with managerial, advisory, and strategic planning services provided to both SCG and SDG&E by the Manager of Remittance Processing and Supporting Staff. Posting to this cost center will include the Manager of Remittance Processing, the Project Manager, the Business Advisor, the Business Systems Analyst, and the Administrative Assistant, whose services encompass Customer Data Distribution, Customer Remittance Processing, and the BranchOffices, including Authorized Payment Locations. Based on volumes reported as of Year-End 2013.

**Cost Center Allocation Percentage for 2015**

This cost center is used to track expenditures Labor and Non-Labor, associated with managerial, advisory, and strategic planning services provided to both SCG and SDG&E by the Manager of Remittance Processing and Supporting Staff. Posting to this cost center will include the Manager of Remittance Processing, the Project Manager, the Business Advisor, the Business Systems Analyst, and the Administrative Assistant, whose services encompass Customer Data Distribution, Customer Remittance Processing, and the BranchOffices, including Authorized Payment Locations. Based on volumes reported as of Year-End 2013.

**Cost Center Allocation Percentage for 2016**

This cost center is used to track expenditures Labor and Non-Labor, associated with managerial, advisory, and strategic planning services provided to both SCG and SDG&E by the Manager of Remittance Processing and Supporting Staff. Posting to this cost center will include the Manager of Remittance Processing, the Project Manager, the Business Advisor, the Business Systems Analyst, and the Administrative Assistant, whose services encompass Customer Data Distribution, Customer Remittance Processing, and the BranchOffices, including Authorized Payment Locations. Based on volumes reported as of Year-End 2013.

*Note: Totals may include rounding differences.*

Southern California Gas Company  
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Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 4. MANAGER OF REMITTANCE PROCESSING  
 Cost Center: 2200-2247.000 - MANAGER OF REMITTANCE PROCESSING

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	427	427	427	0	0	0	427	427	427
Non-Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>427</b>	<b>427</b>	<b>427</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>427</b>	<b>427</b>	<b>427</b>
FTE	Base YR Rec	4.3	4.3	4.3	0.0	0.0	0.0	4.3	4.3	4.3

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

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Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman  
Category: A. Customer Service Office Operations  
Category-Sub: 4. MANAGER OF REMITTANCE PROCESSING  
Cost Center: 2200-2247.000 - MANAGER OF REMITTANCE PROCESSING

**Determination of Adjusted-Recorded (Incurred Costs):**

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	344	351	354	367	366
Non-Labor	1	2	2	3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>346</b>	<b>353</b>	<b>356</b>	<b>370</b>	<b>366</b>
FTE	3.9	3.9	3.8	3.8	3.6
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	344	351	354	367	366
Non-Labor	1	2	2	3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>346</b>	<b>353</b>	<b>356</b>	<b>370</b>	<b>366</b>
FTE	3.9	3.9	3.8	3.8	3.6
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	62	61	59	59	61
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>62</b>	<b>61</b>	<b>59</b>	<b>59</b>	<b>61</b>
FTE	0.7	0.7	0.7	0.6	0.6
<b>Escalation to 2013\$</b>					
Labor	40	30	18	9	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>40</b>	<b>30</b>	<b>18</b>	<b>10</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	447	443	431	436	427
Non-Labor	1	2	2	3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>448</b>	<b>445</b>	<b>433</b>	<b>438</b>	<b>427</b>
FTE	4.6	4.6	4.5	4.4	4.2

\* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

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Area: CS - OFFICE OPERATIONS  
 Witness: Evan D. Goldman  
 Category: A. Customer Service Office Operations  
 Category-Sub: 4. MANAGER OF REMITTANCE PROCESSING  
 Cost Center: 2200-2247.000 - MANAGER OF REMITTANCE PROCESSING

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2009 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2010 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2011 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2012 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Supplemental Workpapers for Workpaper 2200-2247.000**

**RESPONSES TO INFORMAL DATA REQUESTS & DEFICIENCIES**

**ORA INFORMAL-SDG&E/SOCALSGAS-DR-05,  
SOCALGAS-ORA-DEF-004-TLG, and  
SOCALGAS-ORA-DEF-028-TLG**

**Supporting the Request of Evan Goldman**

**Customer Service Office Operations**

Note 1: Capital WP 00774M My Account Mobile 1C, has been updated with corrections to workpaper for in-service date.

Note 2: Capital WP 00764C Collections Optimization Phase 3, has been updated with corrections for in-service date.

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SoCalGas Exhibit-11  
Customer Service Office Operations  
Roadmap for APP Testimony Workpapers

Functional Area	Testimony Area	Work Paper Group	Exh SCG-11 Testimony Pages	Exh SCG-11 WP Workpaper Pages X of 152	MDR Chapter 7 question #	WP Group FERC Accounts	FERC Allocation %	Cost Centers in WP Group	Cost Center Name
<b>Customer Service Office Operations - Exhibit No.: SCG - 11 Witness: Evan D. Goldman</b>									
<b>Non Shared Services -Section II</b>									
			pp. EDG 9-51	5-120					
		200000.000 CCC-Operations	pp. EDG-10, line 1 to EDG-22, line 10	5-15	Questions 5-9	903.1	100%	2200-0406	COMMERCIAL & INDUSTRIAL
		Supplemental Workpaper 1-1 Call Volume Forecast		17				2200-0407	CCC SITE MANAGER SAN DIMAS
		Supplemental Workpaper 1-2 Labor Dollar Adjustments For CSR Call Volume Changes		18				2200-0408	HIGH BILL INVESTIGATION
		Supplemental Workpaper 1-3 Customer Outreach Safety Check Calls		19				2200-0409	RESIDENTIAL MARKETING
		Supplemental Workpaper 2 eWFM Labor and FTE calculations		20				2200-0411	CCC SITE MANAGER REDLANDS
		Supplemental Workpaper 3 CSR LOS Dollars at Various Levels		21				2200-0412	CENTRALIZED SET DESKS
		Supplemental Workpaper 4 CEB recommended Supervisor Ratio		22				2200-1214	CCC SPECIAL SERVICES MANAGER
		Supplemental Workpaper 5 CARE		23				2200-1371	CUSTOMER CONTACT MULTILINGUAL SUPPORT
		200001.000 CCC-Support	pp. EGD-22, line 11 to EDG-30, line 23	24-36	Questions 5-9	903.1	100%	2200-0164	OUTBOUND DIALING & CUST CORR (SCG)
		Supplemental Workpaper 1 IVR Doctors		38-44				2200-0165	CCC PLANNING & ANALYSIS (SCG)
		Supplemental Workpaper 2 Special Investigations Team		45				2200-0344	CS TRAINING & DEVELOPMENT MANAGER
		Supplemental Workpaper 3 Chat Estimate		46				2200-0401	CUSTOMER CONTACT CENTER DIRECTOR
		Supplemental Workpaper 4 Telecommunications		47				2200-0403	LOS MANAGEMENT (LOS)
		Supplemental Workpaper 5 Outbound Dialing Summary		48				2200-0404	CCC TECHNOLOGY
								2200-0410	SPECIAL INVESTIGATIONS
								2200-1370	QUALITY ASSURANCE (SCG)
								2200-1372	CCC OPS SUPPORT (SCG)
								2200-2099	CCC OPERATIONS SUPPORT REFUNDABLE
								2200-2154	CCC RESOURCE AND SERVICE LEVEL MANAGER
								2200-2156	CCC OPERATIONS SUPPORT MANAGER
								2200-2408	CUSTOMER EXPERIENCE
		200002.000 Branch Offices	pp. EDG-30, line 24 to EDG-31, line 27	49-53	Question 10	903.1	100%	2200-0405	BRANCH OFC AREA 7
								2200-0414	AUTHORIZED PYMNT AGENCIES
								2200-0415	BRANCH OFC AREA 8
								2200-0416	BRANCH OFC AREA 1
								2200-0417	BRANCH OFC AREA 2
								2200-0418	BRANCH OFC AREA 3
								2200-0419	BRANCH OFC AREA 4
								2200-0420	BRANCH OFC AREA 5
								2200-0421	BRANCH OFC AREA 6

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Roadmap for APP Testimony Workpapers

Functional Area	Testimony Area	Work Paper Group	Exh SCG-11 Testimony Pages	Exh SCG-11 WP Workpaper Pages X of 152	MDR Chapter 7 question #	WP Group FERC Accounts	FERC Allocation %	Cost Centers in WP Group	Cost Center Name
								2200-2050	BRANCH OFFICE OPERATIONS MGR - SCG
								2200-2088	AUTHORIZED PAYMENT LOCATIONS -SCG
								2200-2196	BRANCH OFC REGIONAL SUPERVISOR 2
		200003.000 Billing Services	pp. EDG-32, line 1 to EDG-35 line 9	54-60		903.1	100%	2200-0226	SOCAL GAS CUSTOMER OPERATIONS DIRECTOR
		Supplemental Workpaper 1 Manual Exceptions Due to Meter Growth		62				2200-0227	MAJOR MARKETS BILLING-NORTH
		Supplemental Workpaper 2 Billing Exceptions Backlog		63				2200-0348	CUSTOMER BILLING SERVICES
								2200-0349	SPECIAL BILLING C&I
								2200-2028	MGR CUSTOMER OPERATIONS SUPPORT
		200007.000 Measurement Data Operations	pp. EDG-35 line 10 to EDG-36, line 19	113-117		902.2 903.3	53.50% 46.50%	2200-0228	SCG MEASUREMENT DATA OPERATIONS MANAGER
		Supplemental Workpaper 1 Telecommunications Costs Due to Meter Growth		119					
		200004.000 Credit and Collections	pp. EDG-37, line 1 to EDG-39, line 8	64-70	Questions 11-12	903.1	100%	2200-0340	SCG CREDIT & COLLECTIONS - ADJ
		Supplemental Workpaper 1 FACTA Description		72-73				2200-0347	UNCOLLECTIBLES - CORE
		Supplemental Workpaper 2 Costs Supporting Collections Optimization Phases 2 and 3		74				2200-0350	SOCALGAS CREDIT & COLLECTIONS MGR
								2200-0351	MASS MARKET CREDIT & COLLECTION SERVICES
								2200-0352	MASS MARKET CREDIT & COLLECTION PROJECTS
								2200-2054	UNCOLLECTIBLES - NONCORE
		200004.001 Credit and Collections Postage	pp. EDG-39, line 9 to EDG-40, line 9	75-81		903.7	100%	2200-0352	MASS MARKET CREDIT & COLLECTION POSTAGE
		Supplemental Workpaper 1 Postage Calculation		83					
		200005.000 Remittance Processing	pp. EDG-40, line 10 to EDG-42, line 5	84-89	Question 13	903.3 903.4	94.42% 5.58%	2200-0678	DATA DISTRIBUTION
		Supplemental Workpaper 1 Vendor Fees for e-Bills and Savings From Paperless Bills		91				2200-1341	CARE PORTION OF DATA DISTRIBUTION
								2200-2026	BILL PRESENTMENT & PAYMENT CHANNEL
								2200-2199	REMITTANCE PROCESSING SUPPORT
								2200-2239	DATA DISTRIBUTION LETTERS
								2200-2330	MANAGER OF REMITTANCE PROCESSING SCG
		200005.001 Remittance Processing Postage	pp. EDG-42, line 6 to EDG-44, line 5	92-98	Question 13	903.7	100%	2200-0678	DATA DISTRIBUTION-POSTAGE
		Supplemental Workpaper 1 Remittance Processing Postage Calculation		100				2200-2239	DATA DISTRIBUTION LETTERS-POSTAGE
		200006.000 Customer Service Other Office Operations and Technology	pp. EDG-44, line 6 to EDG-51, line 30	101-112	Question 3	903.1 920.0	83.76% 16.24%	2200-0018	CS-CUST OPS LVC
								2200-0331	BUS PLANNING CLIENT SUPPORT

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Customer Service Office Operations  
Roadmap for APP Testimony Workpapers

Functional Area	Testimony Area	Work Paper Group	Exh SCG-11 Testimony Pages	Exh SCG-11 WP Workpaper Pages X of 152	MDR Chapter 7 question #	WP Group FERC Accounts	FERC Allocation %	Cost Centers in WP Group	Cost Center Name
								2200-0341	CUSTOMER SERVICE STAFF DIRECTOR
								2200-2027	CUSTOMER OPERATIONS TECHNOLOGY MANAGER
								2200-2094	CUSTOMER OPERATIONS VP
								2200-2140	CUSTOMER SERVICES SVP & STAFF
								2200-2306	CUST OPS TECH PROJECT MANAGER – SCG
								2200-2474	CUST OPS STRATEGY & ANALYSIS MANAGER
	<b>USS-Section III</b>		pp. EDG-52-57	121-150					
		Major Market Credit and Collections 2200-0354	pp. EDG-53, line 1 to EDG-54, line 21	122-128	Question 17	903.1	100%	2200-0354	
		Payment Processing and Manager of Remittance Processing 2200-0355 & 2200-2247	pp. EDG-55, line 1 to EDG-56, line 9	129-136	Question 17	903.4	100%	2200-0355	
			pp. EDG-56, line 10 to EDG-57, line 8	144-150	Question 17	903.3	14.57%	2200-2247	
		SR VP Customer Service Innovation & Strategy 2200-2240	pp. EDG-56, line 10 to EDG-57, line 8	137-143	Question 17	920.0	89.19%	2200-2240	
	<b>Uncollectible Rate-Section V</b>	Uncollectible Rate	pp. EDG-76, line 14 to EDG-77, line 7		Question 14	921.0	10.81%		
	<b>Capital-Section IV</b>		pp. EDG-57-75	Christopher Olmsted Exh SCG-18-CWP pp. 21-121					
<b>GRID WP #</b>	<b>Capital Project #</b>	<b>Capital Project Name</b>							
00764E	14914	Customer Order Communication	pp. EDG-59, line 9 to EDG-60, line 14	Christopher Olmsted Exh SCG-18-CWP pp. 37-41					
00764H	15925	Voice Recording and QA Tools-Collection and Billing	pp. EDG-60, line 15 to EDG-61, line 3	Christopher Olmsted Exh SCG-18-CWP pp. 42-46					
00784A	14826	Integrated Customer Data & Analytics	pp. EDG-61, line 4 to EDG-62, line 25	Christopher Olmsted Exh SCG-18-CWP pp. 80-86					
00774M	81423	My Account Mobile 1C	pp. EDG-63, line 1 to EDG-64, line 9	Christopher Olmsted Exh SCG-18-CWP pp. 58-63					
00776V	81436	SCG My Business Account	pp. EDG-64, line 9 to EDG-65, line 9	Christopher Olmsted Exh SCG-18-CWP pp. 72-79					
00774N	81424	SCG IVR Phase 4	pp. EDG-65, line 9 to EDG-66, line 12	Christopher Olmsted Exh SCG-18-CWP pp. 64-71					
00774L	81435	My Account Technology Refresh	pp. EDG-66, line 12 to EDG-68, line 16	Christopher Olmsted Exh SCG-18-CWP pp. 47-57					
00770J	51809	CCC Avaya System Refresh	pp. EDG-68, line 17 to EDG-69, line 7	Christopher Olmsted Exh SCG-18-CWP pp. 21-25					

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Roadmap for APP Testimony Workpapers

Functional Area	Testimony Area	Work Paper Group	Exh SCG-11 Testimony Pages	Exh SCG-11- WP Workpaper Pages X of 152	MDR Chapter 7 question #	WP Group FERC Accounts	FERC Allocation %	Cost Centers in WP Group	Cost Center Name
00774E	15823	CCC Genesys Upgrade	pp. EDG-69, line 8 to EDG-70, line 15						Christopher Olmsted Exh SCG-18-CWP pp. 26-31
00777C	15920	Small Caps Request (Customer Operations Technology Applications Server)	pp. EDG-70, lines 16-28						Christopher Olmsted Exh SCG-18-CWP pp. 32-36
		Collections Optimization Projects	pp. EDG-71, lines 5-13						
00784B	81415	Collections Optimization Phase 1	pp. EDG-71, line 15 to EDG-72, line 7						Christopher Olmsted Exh SCG-18-CWP pp. 117-121
00764B	14875	Collections Optimization Phase 2	pp. EDG-72, lines 8-19						Christopher Olmsted Exh SCG-18-CWP pp. 102-106
00764C	14877	Collections Optimization Phase 3	pp. EDG-72, line 20 to EDG-73 line 15						Christopher Olmsted Exh SCG-18-CWP pp. 107-111
00764G	15878	Collections Optimization Phase 4	pp. EDG-73, lines 16-28						Christopher Olmsted Exh SCG-18-CWP pp. 112-116
		Customer Data Controls Projects	pp. EDG-74, lines 6-11						
00764J	81418	Customer Data Controls Phase 1	pp. EDG-74, line 12 to EDG-75, line 5						Christopher Olmsted Exh SCG-18-CWP pp. 97-101
00764A	14843	Customer Data Controls Phase 2	pp. EDG-75, line 6 to EDG-76, line 13						Christopher Olmsted Exh SCG-18-CWP pp. 87-91
00764D	14912	3rd Party Data Request Web Portal	pp. EDG-75, line 17 to EDG-76, line 13						Christopher Olmsted Exh SCG-18-CWP pp. 92-96
Appendix A: List of Non-Shared Cost Centers				151-152					

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ORA Informal Data Request  
ORA INFORMAL-SDG&E/SoCalGas-DR-05  
Question 2 Attachments

Witness Name	Evan Goldman								
Constant 2013\$ in Thousands									
	Adjusted Recorded					Forecast			Workpaper Page
	2009	2010	2011	2012	2013	2014	2015	2016	
SCG									
Exh No:SCG-11-WP									
<b>OM Total</b>	<b>106,683</b>	<b>108,057</b>	<b>104,384</b>	<b>101,577</b>	<b>98,878</b>	<b>99,339</b>	<b>101,357</b>	<b>103,856</b>	
NSS	100,350	102,170	98,596	95,445	92,876	93,307	95,325	97,824	
200000.000 - CCC Operations									
Labor	35,924	38,010	34,954	32,059	30,875	30,281	31,734	34,531	
NLbr	390	448	479	374	347	340	358	392	
NSE	-	-	-	-	-	-	-	-	
200000.000 Total	36,314	38,458	35,433	32,433	31,222	30,621	32,092	34,923	Page 6 of 152
200001.000 - CCC Support									
Labor	5,258	5,133	5,157	5,455	6,015	6,153	6,451	6,923	
NLbr	2,658	3,968	3,113	3,417	3,175	3,560	3,884	3,458	
NSE	-	-	-	-	-	-	-	-	
200001.000 Total	7,916	9,101	8,270	8,872	9,190	9,713	10,335	10,381	Page 25 of 152
200002.000 - Branch Offices									
Labor	8,378	8,656	8,413	8,291	8,404	8,404	8,404	8,404	
NLbr	2,740	2,661	2,926	2,732	2,536	2,536	2,536	2,536	
NSE	-	-	-	-	-	-	-	-	
200002.000 Total	11,118	11,317	11,339	11,023	10,940	10,940	10,940	10,940	Page 50 of 152
200003.000 - Billing Services									
Labor	8,085	7,792	7,428	7,304	6,834	7,063	7,099	7,144	
NLbr	97	106	168	118	98	98	98	98	
NSE	-	-	-	-	-	-	-	-	
200003.000 Total	8,182	7,898	7,596	7,422	6,932	7,161	7,197	7,242	Page 55 of 152
200004.000 - Credit and Collections									
Labor	3,217	2,924	2,911	2,928	2,863	2,980	2,980	2,980	
NLbr	1,030	962	1,123	875	1,073	1,170	1,259	1,271	
NSE	-	-	-	-	-	-	-	-	
200004.000 Total	4,247	3,886	4,034	3,803	3,936	4,150	4,239	4,251	Page 65 of 152
200004.001 - Credit and Collections Postage									
Labor	-	-	-	-	-	-	-	-	
NLbr	-	-	-	-	-	-	-	-	
NSE	1,638	1,855	2,182	1,997	1,899	1,308	1,308	1,308	
200004.001 Total	1,638	1,855	2,182	1,997	1,899	1,308	1,308	1,308	Page 76 of 152
200005.000 - Remittance Processing									
Labor	1,754	1,827	1,813	1,904	1,880	1,880	1,880	1,880	
NLbr	4,814	4,606	5,230	5,027	4,574	4,561	4,551	4,543	
NSE	-	-	-	-	-	-	-	-	
200005.000 Total	6,568	6,433	7,043	6,931	6,454	6,441	6,431	6,423	Page 85 of 152

Note: Totals may include rounding differences.

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ORA Informal Data Request  
ORA INFORMAL-SDG&E/SoCalGas-DR-05  
Question 2 Attachments

Witness Name	Evan Goldman								
Constant 2013\$ in Thousands									
	Adjusted Recorded					Forecast			Workpaper Page
	2009	2010	2011	2012	2013	2014	2015	2016	
<b>200005.001 - Remittance Processing Postage</b>									
Labor	-	-	-	-	-	-	-	-	
NLbr	-	-	-	-	-	-	-	-	
NSE	20,554	19,658	18,596	17,976	17,522	17,890	17,264	16,651	
<b>200005.001 Total</b>	<b>20,554</b>	<b>19,658</b>	<b>18,596</b>	<b>17,976</b>	<b>17,522</b>	<b>17,890</b>	<b>17,264</b>	<b>16,651</b>	Page 93 of 152
<b>200006.000 - Customer Service Other Office Operations and Technology</b>									
Labor	2,549	2,300	2,533	2,401	2,567	2,850	3,515	3,582	
NLbr	125	59	264	1,181	764	1,033	803	920	
NSE	-	-	-	-	-	-	-	-	
<b>200006.000 Total</b>	<b>2,674</b>	<b>2,359</b>	<b>2,797</b>	<b>3,582</b>	<b>3,331</b>	<b>3,883</b>	<b>4,318</b>	<b>4,502</b>	Page 103 of 152
<b>200007.000 - Measurement Data Operations</b>									
Labor	681	764	845	931	874	875	875	875	
NLbr	458	441	461	475	576	578	579	581	
NSE	-	-	-	-	-	-	-	-	
<b>200007.000 Total</b>	<b>1,139</b>	<b>1,205</b>	<b>1,306</b>	<b>1,406</b>	<b>1,450</b>	<b>1,453</b>	<b>1,454</b>	<b>1,456</b>	Page 114 of 152
USS	6,333	5,887	5,788	6,132	6,002	6,032	6,032	6,032	
<b>2200-0354.000 - Major Market Credit and Collections</b>									
Labor	1,252	1,297	1,268	1,232	1,182	1,212	1,212	1,212	
NLbr	344	316	325	368	306	306	306	306	
NSE	-	-	-	-	-	-	-	-	
<b>2200-0354.000 Total</b>	<b>1,596</b>	<b>1,613</b>	<b>1,593</b>	<b>1,600</b>	<b>1,488</b>	<b>1,518</b>	<b>1,518</b>	<b>1,518</b>	Page 123 of 152
<b>2200-0355.000 - Payment Processing</b>									
Labor	3,098	2,971	2,897	3,055	2,738	2,738	2,738	2,738	
NLbr	1,186	852	859	871	892	892	892	892	
NSE	5	6	6	5	4	4	4	4	
<b>2200-0355.000 Total</b>	<b>4,289</b>	<b>3,829</b>	<b>3,762</b>	<b>3,931</b>	<b>3,634</b>	<b>3,634</b>	<b>3,634</b>	<b>3,634</b>	Page 130 of 152
<b>2200-2240.000 - Sr. VP Customer Service/Innovation/Business Strategy</b>									
Labor				146	401	401	401	401	
NLbr				16	51	51	51	51	
NSE						-	-	-	
<b>2200-2240.000 Total</b>				<b>162</b>	<b>452</b>	<b>452</b>	<b>452</b>	<b>452</b>	Page 138 of 152
<b>2200-2247.000 - Manager of Remittance Processing</b>									
Labor	447	443	431	436	428	428	428	428	
NLbr	1	2	2	3	-	-	-	-	
NSE									
<b>2200-2247.000 Total</b>	<b>448</b>	<b>445</b>	<b>433</b>	<b>439</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	Page 145 of 152

Note: Totals may include rounding differences.

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**Beginning of Workpaper Group**  
**00764E - PT14914 Customer Order Communication**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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SCG/CS - INFORMATION & OFFICE OPERATIONS /Exh No:SCG-11-WP/Witness: E. Goldman  
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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00764.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00764E - PT14914 Customer Order Communication

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Labor	Zero-Based	0	0	0	0	0	131	570	0
Non-Labor	Zero-Based	0	0	0	0	0	110	343	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>241</b>	<b>913</b>	<b>0</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	1.3	5.6	0.0

**Business Purpose:**

This project will provide residential customers timely information about their service order from the time the order is initiated through when the order is completed. Customers will have the option to provide notification preferences when requesting a service order through the CCC or self-service options.

**Physical Description:**

Communication options will include notification method (email, call, text, etc.) and timing preferences for order status. Order types include start service, appliance service / inspection and high bill investigations ("HBI's").

**Project Justification:**

Currently, customers have limited options for receiving information about their order status. Customers may not remember the specific details of their orders such as date, appointment window and access arrangements. Two-thirds of customers indicated their opinion of SoCalGas would increase if they received a notification the day of their appointment.

*Note: Totals may include rounding differences.*

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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00764.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00764E - PT14914 Customer Order Communication

**Forecast Methodology:**

**Labor - Zero-Based**

Estimate based on internal labor hours quotations

**Non-Labor - Zero-Based**

Estimate based on vendor quotations

**NSE - Zero-Based**

N/A

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**Beginning of Workpaper Sub Details for  
Workpaper Group 00764E**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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Southern California Gas Company  
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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00764.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00764E - PT14914 Customer Order Communication  
 Workpaper Detail: 00764E.001 - Customer Order Communication  
 In-Service Date: 08/31/2015  
 Description:

		Forecast In 2013 \$(000)		
Years		2014	2015	2016
Labor		131	570	0
Non-Labor		110	343	0
NSE		0	0	0
	Total	241	913	0
FTE		1.3	5.6	0.0

*Note: Totals may include rounding differences.*

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**Beginning of Workpaper Group**  
**00764H - PT15925 Voice Recording and QA tools - Collections and Billing**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
Page 1 of 5

SCG/CS - INFORMATION & OFFICE OPERATIONS /Exh No:SCG-11-WP/Witness: E. Goldman  
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Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00764.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00764H - PT15925 Voice Recording and QA tools - Collections and Billing

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Years									
Labor	Zero-Based	0	0	0	0	0	0	21	0
Non-Labor	Zero-Based	0	0	0	0	0	0	382	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>403</b>	<b>0</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0

**Business Purpose:**

Provide the ability to record phone calls for Billing and Collections groups. Provide the ability to perform Quality Assurance functions for phone calls.

**Physical Description:**

Implement Voice Recording Solution and QA tools for Billing and Collections.

**Project Justification:**

- Increase effectiveness interaction with Customer.
- Provide tools for coaching effective customer interaction.

*Note: Totals may include rounding differences.*

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2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00764.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00764H - PT15925 Voice Recording and QA tools - Collections and Billing

**Forecast Methodology:**

**Labor - Zero-Based**

Estimate based on internal labor hours quotations

**Non-Labor - Zero-Based**

Estimate based on vendor quotations

**NSE - Zero-Based**

N/A

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**Beginning of Workpaper Sub Details for  
Workpaper Group 00764H**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00764.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00764H - PT15925 Voice Recording and QA tools - Collections and Billing  
 Workpaper Detail: 00764H.001 - Provide the ability to record phone calls for Billing and Collections groups. Provide  
 In-Service Date: 07/31/2015  
 Description:

		Forecast in 2013 \$(000)		
Years		2014	2015	2016
Labor		0	21	0
Non-Labor		0	382	0
NSE		0	0	0
	<b>Total</b>	<b>0</b>	<b>403</b>	<b>0</b>
FTE		0.0	0.2	0.0

*Note: Totals may include rounding differences.*

Southern California Gas Company  
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Capital Workpapers

**Beginning of Workpaper Group**  
**00784A - PT14826 - Integrated Customer Data & Analytics**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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SCG/CS - INFORMATION & OFFICE OPERATIONS /Exh No:SCG-11-WP/Witness: E. Goldman  
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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00784.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00784A - PT14826 - Integrated Customer Data & Analytics

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Labor	Zero-Based	0	0	0	0	0	241	572	7
Non-Labor	Zero-Based	0	0	0	0	0	1,194	2,508	319
NSE	Zero-Based	0	0	0	0	0	0	0	0
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,435</b>	<b>3,080</b>	<b>326</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	2.4	5.6	0.1

**Business Purpose:**

ICDA will deliver an integrated data store that enables the future vision of Southern California Gas Company's customer analytics. The analytics solution will accommodate big data volumes generated from self-service transactional data. The integration of this data will provide the ability to analyze customer behavioral data, trends, and preferences during the customer evolution process (starting service, requesting service orders, program participation, remittance processing, transferring service, etc.). By doing so, this will allow SCG to make operational, tactical and strategic decisions more efficiently and timely, by making data promptly accessible and available to SCG's data analysts.

**Physical Description:**

A new data warehouse using the MSSQLServer database platform. Project will utilize the ADRM Utility data model to model meta-data and reporting data for all customer information including (payment history, usage history, facility information, service history, equipment information, program enrollment, self-service history, demographics and psychographic profiles). The project will create new processes that extract, clean, combine and calculate data from the functional systems and populate the new data warehouse. The project will create new ad-hoc reporting database for data analysts and new dashboards for operational monitoring for line and staff managers.

**Project Justification:**

The increasing complexity of the business decisions faced by SoCalGas and our customers creates a corresponding increased need for data to be disseminated into actionable information more widely across to our enterprise, our customers and interested external stakeholders. Without the ability to easily gather, analyze and share customer data, SoCalGas will not be able to see the trends and patterns found in operational data as quickly, which can provide tailored services to individual customers.

The Project will provide the ability to reduce analytics time to insights (and time to business value) by investing in Information Governance and Data Management, Analytics Governance and Advanced Analytics capabilities. Current estimates are 80% of super-user time spent integrating data because of lack of foundational capabilities.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00784.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00784A - PT14826 - Integrated Customer Data & Analytics

**Forecast Methodology:**

**Labor - Zero-Based**

The forecast is based upon the current project timeline.

**Non-Labor - Zero-Based**

The forecast is based upon the current project timeline.

**NSE - Zero-Based**

N/A

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**Beginning of Workpaper Sub Details for  
Workpaper Group 00784A**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00784.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00784A - PT14826 - Integrated Customer Data & Analytics  
 Workpaper Detail: 00784A.001 - Integrated Customer Data & Analytics\_SQL  
 In-Service Date: 03/31/2016  
 Description:

Forecast In 2013 \$(000)					
Years		2014	2015	2016	
Labor		241	572	7	
Non-Labor		824	2,318	165	
NSE		0	0	0	
	Total	1,065	2,890	172	
FTE		2.4	5.6	0.1	

*Note: Totals may include rounding differences.*

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted

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SCG/CS - INFORMATION & OFFICE OPERATIONS /Exh No:SCG-11-WP/Witness: E. Goldman

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Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00784.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00784A - PT14826 - Integrated Customer Data & Analytics  
 Workpaper Detail: 00784A.002 - Integrated Customer Data & Analytics\_SQL  
 In-Service Date: 03/31/2016  
 Description:

Forecast In 2013 \$(000)					
Years		2014	2015	2016	
Labor		0	0	0	
Non-Labor		0	190	154	
NSE		0	0	0	
	Total	0	190	154	
FTE		0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00784.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00784A - PT14826 - Integrated Customer Data & Analytics  
 Workpaper Detail: 00784A.003 - Integrated Customer Data & Analytics\_SQL  
 In-Service Date: 03/31/2016  
 Description:

		Forecast In 2013 \$(000)		
Years		2014	2015	2016
Labor		0	0	0
Non-Labor		370	0	0
NSE		0	0	0
	<b>Total</b>	<b>370</b>	<b>0</b>	<b>0</b>
FTE		0.0	0.0	0.0

*Note: Totals may include rounding differences.*

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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**Beginning of Workpaper Group**  
**00774M - PT81423 My Account Mobile 1C**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
Page 1 of 6

SCG/CS - INFORMATION & OFFICE OPERATIONS /Exh No:SCG-11-WP/Witness: E. Goldman  
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Southern California Gas Company  
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Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00774.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00774M - PT81423 My Account Mobile 1C

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Labor	Zero-Based	0	0	0	0	0	216	6	0
Non-Labor	Zero-Based	0	0	0	0	0	1,057	410	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,273</b>	<b>416</b>	<b>0</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	2.1	0.1	0.0

**Business Purpose:**

Project will extend My Account SMS text communication capabilities to 2-way texting. Proposed new scope will allow customers to receive a bill ready notification, obtain current balance and make payments. The project will increase existing transaction tracking and reporting capabilities to include mobile channel.

Project will also implement self service order functionality on My Account mobile web platform for payment arrangements.

**Physical Description:**

*Note: Totals may include rounding differences.*

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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00774.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00774M - PT81423 My Account Mobile 1C

This project will continue to build upon the mobile "web" platform created in previous My Account mobile projects, by offering self-service orders and additional texting capabilities. Project will deliver the following:

SMS Text: Enhance/add 1 and 2 way alerts related to Bill Payment (e.g., bill ready notifications, bill payment via text capability)

Mobile Web Self-Service Orders:

Gas Appliance Service order

Payment Arrangements/Extensions

Stop Service order

Third Party Tools: Mobile Analytics & Testing tools

Reporting Capabilities: Track and Report Mobile Transactions Volumes

Capture audit trail for payments and emergency text messages by leveraging SVOC and EBPP tables

The sms texting vendor will need to provide delivery results on a daily basis

EDIX will need to receive the delivery result file and provide results to appropriate systems based on rules to be determined

Leverage existing architecture (i.e. iContact, customer preference center) to support the new texting channel

System handling the transactions will be responsible for maintaining the continuity of the text conversations

Gas Appliance Service Order, Payment Arrangement/Extension, Stop Service Order and will need successfully pass performance and endurance test

Adhere to Semptra Information Security standards and requirements

**Project Justification:**

Converting approximately 360,000 My Account users who currently opt out of paperless back to paper is a cost savings of \$1.6M over 5 years

Avoided costs: Increasing completion rates of online self service transactions is a cost avoidance of \$550K over 5 years.

Maintain/Increase customer satisfaction. Keep up with customer's expectations.

Contain customers using self service by offering mobile channel for self-service orders.

Increase paperless billing adoption by increasing access/awareness to online view and pay bill functions

Increase paperless billing adoption by increasing access/awareness to online view and pay bill functions

*Note: Totals may include rounding differences.*

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted

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Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00774.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00774M - PT81423 My Account Mobile 1C

**Forecast Methodology:**

**Labor - Zero-Based**

The forecast is based upon the current project timeline.

**Non-Labor - Zero-Based**

The forecast is based upon the current project timeline.

**NSE - Zero-Based**

N/A

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**Beginning of Workpaper Sub Details for  
Workpaper Group 00774M**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
Page 5 of 6

Southern California Gas Company  
2016 GRC - APP  
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2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00774.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00774M - PT81423 My Account Mobile 1C  
 Workpaper Detail: 00774M.001 - My Account Mobile 1C  
 In-Service Date: 02/28/2015  
 Description:

		Forecast In 2013 \$(000)		
Years		2014	2015	2016
Labor		216	6	0
Non-Labor		1,057	410	0
NSE		0	0	0
	<b>Total</b>	<b>1,273</b>	<b>416</b>	<b>0</b>
FTE		2.1	0.1	0.0

*Note: Totals may include rounding differences.*

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2016 GRC - APP  
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**Beginning of Workpaper Group**  
**00776V - PT81436 SCG My Business Account**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00776.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00776V - PT81436 SCG My Business Account

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Labor	Zero-Based	0	0	0	0	0	121	157	58
Non-Labor	Zero-Based	0	0	0	0	0	1,837	1,855	1,557
NSE	Zero-Based	0	0	0	0	0	0	0	0
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,958</b>	<b>2,012</b>	<b>1,615</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	1.2	1.5	0.6

**Business Purpose:**

This business portal is specifically for C&I customers with a focus on meeting the needs of small and medium businesses ("SMBs"). Businesses will be able to view and, manage usage, manage billing and payments, and request services such as routine maintenance for natural gas fired equipment. The business portal will also be used to communicate relevant energy saving tips, as well as information about energy efficiency programs and equipment rebates by providing tailored communications specific to their industry segment, regional location and/or equipment type. Business users will be able to have access to multiple accounts, assign access and restrict access to specific functionality within My Biz Account to different users.

Business Portal launch • Developing phases of online Business MyAccount with awareness campaigns to encourage customer enrollment and usage

Increase operational efficiency by resolving solutions on line such as time for service orders , payment extension, pay by phone and bill inquiries

Electronic/Paperless communication instead of bill inserts

Increased paperless billing adoption. Increase electronic bill payment

**Physical Description:**

Developing phases of online Business MyAccount with awareness campaigns to encourage customer enrollment and usage

Increase operational efficiency by resolving solutions on line such as time for service orders , payment extension, pay by phone and bill inquiries

Electronic/Paperless communication instead of bill inserts

Increased paperless billing adoption. Increase electronic bill payment

**Project Justification:**

(1) Not meeting customer expectations around availability of self-service channel leading to continuing low customer satisfaction scores(JD Power) (2) No touch point with 80% of C&I customers who currently do not have an AE, increasing difficulty new products/services program participation (3) Advanced Meter 1% conservation goal involving C&I customers may not be supported.

Cost savings of \$2.452M (loaded) over 5 years with increasing paperless billing, reducing paper billing postage and handling costs

Increased revenues of \$x.xM due to improvements in Collection Agency Effectiveness rates

Note: Totals may include rounding differences.

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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00776.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00776V - PT81436 SCG My Business Account

**Forecast Methodology:**

**Labor - Zero-Based**

Estimate based on internal labor hours quotations..

**Non-Labor - Zero-Based**

Software costs, licensing and maintenance costs.

**NSE - Zero-Based**

N/A

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Capital Workpapers

**Beginning of Workpaper Sub Details for  
Workpaper Group 00776V**

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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00776.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00776V - PT81436 SCG My Business Account  
 Workpaper Detail: 00776V.001 - SCG CI My Biz Account  
 In-Service Date: 12/31/2014  
 Description:

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		121	0	0
Non-Labor		1,372	0	0
NSE		0	0	0
	<b>Total</b>	<b>1,493</b>	<b>0</b>	<b>0</b>
FTE		1.2	0.0	0.0

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00776.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00776V - PT81436 SCG My Business Account  
 Workpaper Detail: 00776V.002 - SCG CI My Biz Account  
 In-Service Date: 12/31/2014  
 Description:

		Forecast In 2013 \$(000)		
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		465	0	0
NSE		0	0	0
	<b>Total</b>	<b>465</b>	<b>0</b>	<b>0</b>
FTE		0.0	0.0	0.0

*Note: Totals may include rounding differences.*

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2016 GRC - APP  
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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00776.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00776V - PT81436 SCG My Business Account  
 Workpaper Detail: 00776V.003 - SCG CI My Biz Account  
 In-Service Date: 12/31/2015  
 Description:

		Forecast In 2013 \$(000)		
Years		2014	2015	2016
Labor		0	157	0
Non-Labor		0	1,855	0
NSE		0	0	0
	<b>Total</b>	<u>0</u>	<u>2,012</u>	<u>0</u>
FTE		0.0	1.5	0.0

*Note: Totals may include rounding differences.*

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Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00776.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00776V - PT81436 SCG My Business Account  
 Workpaper Detail: 00776V.004 - SCG CI My Biz Account  
 In-Service Date: 12/31/2016  
 Description:

Forecast in 2013 \$(000)			
Years	2014	2015	2016
Labor	0	0	58
Non-Labor	0	0	1,557
NSE	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1,615</b>
FTE	0.0	0.0	0.6

*Note: Totals may include rounding differences.*

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2016 GRC - APP  
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**Beginning of Workpaper Group  
00774N - PT81424 SCG IVR Ph 4**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00774.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00774N - PT81424 SCG IVR Ph 4

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Labor	Zero-Based	0	0	0	0	0	521	65	0
Non-Labor	Zero-Based	0	0	0	0	0	1,221	86	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,742</b>	<b>151</b>	<b>0</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	5.1	0.6	0.0

**Business Purpose:**

This project will implement functional and usability changes to the SCG Interactive Voice Response (IVR) system. New transactions will be added and the usability of existing transactions will be improved to streamline areas where customers are struggling and or failing out to a Customer Service Representative (CSR). Additional information about why a caller exited the IVR will be provided to CSRs through Genesys Agent Desktop screen-pop.

The project will also implement an integrated disaster recovery and quality assurance testing environment separate from the existing IVR development environment

**Physical Description:**

IVR Self-Service Close Order  
Automate all or a portion of Close Order task in IVR  
Usability enhancements to Main Menu, Start/Stop/Close, Assistance Programs & Other Matters Menus  
Re-organize main menu based on volume selections  
Add navigation (repeat, previous, main menu) options to each layer of menu  
Create clear path for Close Order task in Start/Stop/Close menu  
Usability Enhancements to Authentication Module  
Streamline authentication module based on main menu selection  
Enhance the information passed from IVR to GAD screen for CSRs viewing  
IVR to Provide CSO access phrasing to unauthenticated callers and pass information to CSRs via GAD  
As additional IVR Tasks are built (ie Close Order, etc) ensure caller goal and associated IVR interaction is passed to CSR via GAD  
Overall Billing Menu enhancements  
Integrate Bill Matrix IVR with SCG IVR. Will allow customers to make payment and not be transferred to 3rd party  
Refine Payment Arrangement Task  
For customers with pending payment arrangement, play details of task, even if not eligible to change  
Additional enhancements as continue analysis work

**Project Justification:**

*Note: Totals may include rounding differences.*

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted

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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00774.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00774N - PT81424 SCG IVR Ph 4

Audit Services Project No.: 12-323 - SoCalGas Review of Customer Contact Centers Genesys IVR System business control issue #1 identified that a Business Continuity and Disaster Recovery Plan for the IVR system does not exist. The management corrective action included upgrading the IVR from DR Tier 4 to DR Tier 2 and establishing a fully redundant disaster recovery site in Monterey Park.  
After full implementation, annual reduction of \$3.3 million in loaded labor costs by increasing IVR self-service utilization to 35% (based on estimated increase of 3.5% in self service rate).  
Improve Customer Experience Survey scores for calls completed in the IVR.  
Improve call handling efficiency / reduce average handle time (AHT)  
Through implementation of a dedicated quality assurance (QA) technical environment, reduce development cycle time and improve quality of the IVR application  
Address audit issue #1 (please see above) by implementing a fully redundant disaster recovery IVR application instance at Monterey Park.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00774.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00774N - PT81424 SCG IVR Ph 4

**Forecast Methodology:**

**Labor - Zero-Based**

The forecast is based upon the current project timeline.

**Non-Labor - Zero-Based**

The forecast is based upon the current project timeline.

**NSE - Zero-Based**

N/A

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**Beginning of Workpaper Sub Details for  
Workpaper Group 00774N**

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Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00774.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00774N - PT81424 SCG IVR Ph 4  
 Workpaper Detail: 00774N.001 - SCG IVR Ph 4  
 In-Service Date: 12/31/2014  
 Description:

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		521	0	0
Non-Labor		899	0	0
NSE		0	0	0
	<b>Total</b>	<b>1,420</b>	<b>0</b>	<b>0</b>
FTE		5.1	0.0	0.0

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00774.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00774N - PT81424 SCG IVR Ph 4  
 Workpaper Detail: 00774N.002 - SCG IVR Ph 4  
 In-Service Date: 12/31/2014  
 Description:

		Forecast In 2013 \$(000)		
Years		2014	2015	2016
Labor		0	0	0
Non-Labor		322	0	0
NSE		0	0	0
	Total	322	0	0
FTE		0.0	0.0	0.0

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00774.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00774N - PT81424 SCG IVR Ph 4  
 Workpaper Detail: 00774N.003 - SCG IVR Ph 4  
 In-Service Date: 03/31/2015  
 Description:

		Forecast in 2013 \$(000)		
Years		2014	2015	2016
Labor		0	65	0
Non-Labor		0	86	0
NSE		0	0	0
	Total	0	151	0
FTE		0.0	0.6	0.0

*Note: Totals may include rounding differences.*

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**Beginning of Workpaper Group**  
**00774L - PT81435 My Account Technology Refresh**

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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00774.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00774L - PT81435 My Account Technology Refresh

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Labor	Zero-Based	0	0	0	0	0	1,746	1,662	295
Non-Labor	Zero-Based	0	0	0	0	0	6,128	4,521	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7,874</b>	<b>6,183</b>	<b>295</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	17.1	16.3	2.7

**Business Purpose:**

This project will replace SCG My Account system that provides online access to schedule services and enables customers to review, manage or pay their bills online. Major components of My Account Portal and Electronic Bill Payment & Processing (EBPP) applications are approaching end of life and need to be upgraded, expanded or replaced in order to support business needs around My Account growth, performance and availability.

My Account software currently consists of several separate systems and platforms that will be replaced with new integrated software, including:

The My Account Portal created with BEA Weblogic – Oracle's legacy platform with sunset date in 2017.

EBPP package purchased from eDocs and consequently sold to Oracle – No longer supported.

Several authentication and authorization servers.

Several web services to/from the Portal and EBPP to CIS (the customer system of record). Currently they are poorly synchronized and customers cannot get real-time updated billing information.

**Physical Description:**

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00774.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00774L - PT81435 My Account Technology Refresh

Ability to support organic Growth of My Account (# of users and self-service transactions)
High Availability
Ability to support organic Growth of My Account (# of users and self-service transactions)
High Availability
Mobility and Multi-Device Support
Multi-language Support
Maintain existing features and functions
Increase Self-Service Adoption and Value
Performance Improvements
Provide higher level of guarantee that revenue generation and collection via Web is not interrupted
Improve ability to adapt as business needs change
Extensibility and Agility of My Account
Empower the business to perform some basic day-to-day tasks (i.e. updating content, images, etc.)
Retain Accessibility features and functions (WCAG AA standard)
Create framework to support future requirements for large scale (C&I) many to many entity relationship management
Ability to report and satisfy regulatory or legal audits with full audit trail of My Account and EBPP for required historic timeframe
Modernize aging/end-of-life technology infrastructure to better support business drives
Need for architecture that better promotes reuse and other technical objectives
Enhance and enable effective technical implementation and governance
Optimize Software Development, Configuration Management and Release Management Processes.
Service enable EBPP for Tighter Integration with Portal.
Develop code aligned with modern standards with reuse, maintainability, and more robust logging/debugging

Note: Totals may include rounding differences.

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00774.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00774L - PT81435 My Account Technology Refresh

considerations.

Extensible & scalable system that will reduce maintenance costs and reduce cycle time to market

Maintain/improve current end-to-end response time.

**Project Justification:**

My Account is becoming the "virtual call center" for our customers, is the face of our company on the web and on our customers mobile phones. To avoid letting this business critical platform becoming obsolete, SCG must invest in My Account platform for keeping it current in terms capacity, reliability and performance.

Improved stability and dependability of My Account is foundational as we continue to promote our online services to replace costlier transaction channels and realize operational efficiencies.

The infrastructure needed to provide the capacity and scalability of the My Account system that will be asked to process up to ½ of the customer revenue and over 25% of service transactions in coming years.

Increased fail-over capability to reduce system outages that impact the customers' ability to transact business and in turn, impact the Contact Center with increased call volume. Estimated to cost \$47K per day, that cost would grow exponentially during a multiple day outage as customers lost faith in our online services.

Provide My Account online services and EBPP across the multiple device types and sizes while minimizing the resultant cost to maintain the multiple footprints.

Increased security for our customer data as both the company and customers face an ever-increasing online threat, and the company faces ever-increasing data security legislation.

*Note: Totals may include rounding differences.*

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted

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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00774.0  
Category: B. CS - Office Operations  
Category-Sub: 2. Improving Customer Experience  
Workpaper Group: 00774L - PT81435 My Account Technology Refresh

**Forecast Methodology:**

**Labor - Zero-Based**

The forecast is based upon the current project timeline.

**Non-Labor - Zero-Based**

The forecast is based upon the current project timeline.

**NSE - Zero-Based**

N/A

Southern California Gas Company  
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**Beginning of Workpaper Sub Details for  
Workpaper Group 00774L**

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00774.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00774L - PT81435 My Account Technology Refresh  
 Workpaper Detail: 00774L.001 - My Account Tech Refresh  
 In-Service Date: 12/31/2014  
 Description:

		Forecast In 2013 \$(000)		
	Years	2014	2015	2016
Labor		1,746	0	0
Non-Labor		4,607	0	0
NSE		0	0	0
	<b>Total</b>	<b>6,353</b>	<b>0</b>	<b>0</b>
FTE		17.1	0.0	0.0

*Note: Totals may include rounding differences.*

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2016 GRC - APP  
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Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00774.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00774L - PT81435 My Account Technology Refresh  
 Workpaper Detail: 00774L.002 - My Account Tech Refresh  
 In-Service Date: 12/31/2014  
 Description:

Forecast In 2013 \$(000)			
Years	2014	2015	2016
Labor	0	0	0
Non-Labor	1,089	0	0
NSE	0	0	0
<b>Total</b>	<b>1,089</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00774.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00774L - PT81435 My Account Technology Refresh  
 Workpaper Detail: 00774L.003 - My Account Tech Refresh  
 In-Service Date: 12/31/2014  
 Description:

Forecast in 2013 \$(000)				
Years		2014	2015	2016
Labor		0	0	0
Non-Labor		432	0	0
NSE		0	0	0
	<b>Total</b>	<b>432</b>	<b>0</b>	<b>0</b>
FTE		0.0	0.0	0.0

*Note: Totals may include rounding differences.*

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2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00774.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00774L - PT81435 My Account Technology Refresh  
 Workpaper Detail: 00774L.004 - My Account Tech Refresh  
 In-Service Date: 12/31/2015  
 Description:

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	1,662	0
Non-Labor		0	3,775	0
NSE		0	0	0
	<b>Total</b>	<b>0</b>	<b>5,437</b>	<b>0</b>
FTE		0.0	16.3	0.0

*Note: Totals may include rounding differences.*

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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00774.0  
 Category: B. CS - Office Operations  
 Category-Sub: 2. Improving Customer Experience  
 Workpaper Group: 00774L - PT81435 My Account Technology Refresh  
 Workpaper Detail: 00774L.005 - My Account Tech Refresh  
 In-Service Date: 03/31/2016  
 Description:

		Forecast in 2013 \$(000)		
Years		2014	2015	2016
Labor		0	0	295
Non-Labor		0	746	0
NSE		0	0	0
	Total	0	746	295
FTE		0.0	0.0	2.7

*Note: Totals may include rounding differences.*

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Capital Workpapers

**Beginning of Workpaper Group**  
**00770J - PT51809 CCC Avaya System Refresh**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00770.0  
 Category: B. CS - Office Operations  
 Category-Sub: 1. Technical Obsolescence  
 Workpaper Group: 00770J - PT51809 CCC Avaya System Refresh

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Labor	Zero-Based	0	0	0	0	0	0	0	153
Non-Labor	Zero-Based	0	0	0	0	0	0	0	600
NSE	Zero-Based	0	0	0	0	0	0	0	0
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>753</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5

**Business Purpose:**

The Customer Contact Center Call Telephony System is aging and approaching the end of manufacturer support. The proposed option will be to refresh the Avaya Telephony system.

**Physical Description:**

Scope of the project will be to refresh the current Customer Contact Center Telephony system extending the life of the system will benefit the Company for the future.

**Project Justification:**

Upgrading the system will ensure that the telephony system is supportable by the manufacturer. System reliability and availability will be assured with continued manufacturer support.

*Note: Totals may include rounding differences.*

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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00770.0  
Category: B. CS - Office Operations  
Category-Sub: 1. Technical Obsolescence  
Workpaper Group: 00770J - PT51809 CCC Avaya System Refresh

**Forecast Methodology:**

**Labor - Zero-Based**

Estimate based on internal labor hours quotations

**Non-Labor - Zero-Based**

Estimate based on vendor quotations

**NSE - Zero-Based**

N/A

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**Beginning of Workpaper Sub Details for  
Workpaper Group 00770J**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00770.0  
 Category: B. CS - Office Operations  
 Category-Sub: 1. Technical Obsolescence  
 Workpaper Group: 00770J - PT51809 CCC Avaya System Refresh  
 Workpaper Detail: 00770J.001 - The Customer Contact Center Call Telephony System is aging and approaching the end of m  
 In-Service Date: 12/31/2016  
 Description:

		Forecast in 2013 \$(000)		
Years		2014	2015	2016
Labor		0	0	153
Non-Labor		0	0	600
NSE		0	0	0
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>753</b>
FTE		0.0	0.0	1.5

*Note: Totals may include rounding differences.*

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**Beginning of Workpaper Group**  
**00774E - PT15823 CCC Genesys Upgrade**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00774.0  
Category: B. CS - Office Operations  
Category-Sub: 1. Technical Obsolescence  
Workpaper Group: 00774E - PT15823 CCC Genesys Upgrade

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Labor	Zero-Based	0	0	0	0	0	0	252	
Non-Labor	Zero-Based	0	0	0	0	0	0	349	
NSE	Zero-Based	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>601</b>	
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	2.5	

**Business Purpose:**

SDG&E and SoCalGas Customer Contact Centers (CCC) use Genesys Interactive Voice Response (IVR) System to provide IVR self-service as well as route customer calls to CCC agents. The Genesys IVR works in combination with the Avaya telephony system. The 2013 Genesys Assessment Project made several recommendations for optimization of the IVR system. Among those recommendation was that the Genesys IVR system be upgraded from version 7.6 to version 8.x.

**Physical Description:**

This project provides for the professional services, internal labor, and hardware/software required for upgrading the Genesys IVR system from version 7.6 to version 8.x.

**Project Justification:**

Improved optimization and reliability of the IVR system. This upgrade will allow continued supportability by remaining on a current software release. Provides standard deployment scripts, reducing deployment errors. Easier to debug and much more efficient at run time (will take advantage of document and compiled file caching). Provides for improved backend connectivity including web services. HTTP and database access. Allows applications to be load balanced much easier on the application server side and eliminates the requirements for stick-session load balancers reducing hardware and operational costs. Improved application monitoring for custom developed SNMP traps. Lower learning curve, training costs. Genesys Administrator is a single administrative view, easier to maintain and administer, lower operating costs. Ability to manage both IVR and routing from a remote location, quicker response to issues. Single database for GVP and CIM configuration information. Ability to create ad-hoc type reports without having to use complicated SQL type inquiry, allowing end users to retrieve data without technical help. Can create custom reports using standard business Intelligence tools for complex usage reporting if required. Quality Advisor and Call Analyst reporting. \*GVP 8.2. Better use of IVR related resources (ASR, TTS, IVR ports). Ability to provide advanced high availability features, minimizing down time due to hardware or software failures. Increased performance and the ability to control caching, eliminating the need to restart system to purge cached VoiceXML pages or audio files. Single metrics file instead of multiple debug log files, standardized format reducing time to find and solve issues. Applications can run 30 to 50% faster then on previous versions due to pre compiling and caching of compiled code and new techniques used in the engine to increase the efficiency of the rendering engine. Allows for G.729 and other compressed formats to be transcoded to G.7

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00774.0  
Category: B. CS - Office Operations  
Category-Sub: 1. Technical Obsolescence  
Workpaper Group: 00774E - PT15823 CCC Genesys Upgrade

**Forecast Methodology:**

**Labor - Zero-Based**

Estimate based on internal labor hours quotations

**Non-Labor - Zero-Based**

Estimate based on vendor quotations

**NSE - Zero-Based**

N/A

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**Beginning of Workpaper Sub Details for  
Workpaper Group 00774E**

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Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00774.0  
 Category: B. CS - Office Operations  
 Category-Sub: 1. Technical Obsolescence  
 Workpaper Group: 00774E - PT15823 CCC Genesys Upgrade  
 Workpaper Detail: 00774E.001 - SDG&E and SoCalGas Customer Contact Centers (CCC) use Genesys Interactive Voice Respor  
 In-Service Date: 12/31/2016  
 Description:

		Forecast in 2013 \$(000)		
	Years	2014	2015	2016
Labor		0	0	204
Non-Labor		0	0	277
NSE		0	0	0
	Total	0	0	481
FTE		0.0	0.0	2.0

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00774.0  
 Category: B. CS - Office Operations  
 Category-Sub: 1. Technical Obsolescence  
 Workpaper Group: 00774E - PT15823 CCC Genesys Upgrade  
 Workpaper Detail: 00774E.002 - SDG&E and SoCalGas Customer Contact Centers (CCC) use Genesys Interactive Voice Respor  
 In-Service Date: 12/31/2016  
 Description:

		Forecast In 2013 \$(000)		
Years		2014	2015	2016
Labor		0	0	48
Non-Labor		0	0	72
NSE		0	0	0
	Total	0	0	120
FTE		0.0	0.0	0.5

*Note: Totals may include rounding differences.*

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**Beginning of Workpaper Group**  
**00777C - PT15920 Small Cap Requests Customer Operations Technology**  
**Application Server)**

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Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00777.0  
 Category: B. CS - Office Operations  
 Category-Sub: 1. Technical Obsolescence  
 Workpaper Group: 00777C - PT15920 Small Cap Requests Customer Operations Technology Application Server)

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Years									
Labor	Zero-Based	0	0	0	0	0	0	0	0
Non-Labor	Zero-Based	0	0	0	0	0	0	10	10
NSE	Zero-Based	0	0	0	0	0	0	0	0
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>10</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Business Purpose:**

Replace two servers that are end of useful life (ap-mmbdw-p01 & ap-mmbdw-p02). These servers are used for 1) storing business procedures and documentation, 2) storing data that is used for business analysis, and 3) generating reports.

**Physical Description:**

Replace two servers that are end of useful life (ap-mmbdw-p01 & ap-mmbdw-p02).

**Project Justification:**

Risk of not being able to maintain electronic business procedures and documentation, as well as the ability to perform analysis for Major Markets Billing and creating reports.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00777.0  
Category: B. CS - Office Operations  
Category-Sub: 1. Technical Obsolescence  
Workpaper Group: 00777C - PT15920 Small Cap Requests Customer Operations Technology Application Server)

**Forecast Methodology:**

**Labor - Zero-Based**

N/A

**Non-Labor - Zero-Based**

Estimate based on one server acquired in 2015 at \$10k, and one server acquired in 2016 at \$10K

**NSE - Zero-Based**

N/A

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**Beginning of Workpaper Sub Details for  
Workpaper Group 00777C**

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Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00777.0  
 Category: B. CS - Office Operations  
 Category-Sub: 1. Technical Obsolescence  
 Workpaper Group: 00777C - PT15920 Small Cap Requests Customer Operations Technology Application Server)  
 Workpaper Detail: 00777C.001 - Small Cap Requests (Cust Ops Tech App Svr)  
 In-Service Date: 06/30/2016  
 Description:

		Forecast In 2013 \$(000)		
Years		2014	2015	2016
Labor		0	0	0
Non-Labor		0	10	10
NSE		0	0	0
	<b>Total</b>	<b>0</b>	<b>10</b>	<b>10</b>
FTE		0.0	0.0	0.0

*Note: Totals may include rounding differences.*

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**Beginning of Workpaper Group**  
**00784B - PT81415 Credit & Collections Optimization**  
**Phase 1**

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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00784.0  
Category: B. CS - Office Operations  
Category-Sub: 4. Business Optimization  
Workpaper Group: 00784B - PT81415 Credit & Collections Optimization

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Years									
Labor	Zero-Based	0	0	0	0	0	274	0	0
Non-Labor	Zero-Based	0	0	0	0	0	17	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>291</b>	<b>0</b>	<b>0</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0

**Business Purpose:**

System and process changes including:

Incorporate Late Payment Notice (LPN) into next invoice to reduce operating expenses

Reduce Collection Agency Timeline and improve Outside Collection Agency (OCA) Effectiveness

**Physical Description:**

Regulatory advice filing with CPUC

Approved LPN design for inclusion in invoice

Updated Collections policies and procedures

Training on updated policies and procedures

Refined Collection Agency Management processes and KPIs

**Project Justification:**

Drive cost savings and increase revenue by optimizing Credit & Collections processes and systems to realize \$9.4M in direct (unloaded) benefits between 2013 and 2017, specifically:

Cost savings of \$6.8M by reducing Late Payment Notice postage and handling costs

Increased revenues of \$2.2M due to improvements in Collection Agency Effectiveness rates

Cost avoidance of \$377K by eliminating 13,000+ manual Miscellaneous Money Transfer (MMTs) processed by Mass Markets Credit & Collections (MMCC) each year

Improved Collection Agency Quality/Performance reporting and tracking

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00784.0  
Category: B. CS - Office Operations  
Category-Sub: 4. Business Optimization  
Workpaper Group: 00784B - PT81415 Credit & Collections Optimization

**Forecast Methodology:**

**Labor - Zero-Based**

Estimate based on internal labor hours quotations

**Non-Labor - Zero-Based**

Estimate based on vendor quotations

**NSE - Zero-Based**

N/A

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**Beginning of Workpaper Sub Details for  
Workpaper Group 00784B**

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Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00784.0  
 Category: B. CS - Office Operations  
 Category-Sub: 4. Business Optimization  
 Workpaper Group: 00784B - PT81415 Credit & Collections Optimization  
 Workpaper Detail: 00784B.001 - Credit & Collections Optimization  
 In-Service Date: 09/30/2014  
 Description:

		Forecast In 2013 \$(000)		
Years		2014	2015	2016
Labor		274	0	0
Non-Labor		17	0	0
NSE		0	0	0
	<b>Total</b>	<b>291</b>	<b>0</b>	<b>0</b>
FTE		2.7	0.0	0.0

*Note: Totals may include rounding differences.*

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**Beginning of Workpaper Group**  
**00764B - PT14875 Collections Optimization Phase 2**

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Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00764.0  
Category: B. CS - Office Operations  
Category-Sub: 4. Business Optimization  
Workpaper Group: 00764B - PT14875 Collections Optimization Phase 2

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Labor	Zero-Based	0	0	0	0	0	267	0	0
Non-Labor	Zero-Based	0	0	0	0	0	107	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>374</b>	<b>0</b>	<b>0</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0

**Business Purpose:**

- Implement 3rd Party Collection Middleware to interface with collection agencies.
- Establish Champion/Challenger competition among collection agencies under contract with Company.
- Increase recoveries from collection agencies.
- Increase the scope and accuracy of information available to Company regarding: Company contracted agency activities, performance, and compliance.
- More easily manage and make adjustments to collection agency referral percentages at all levels of the receivable management process (e.g., Primary, Secondary, Tertiary, Bankruptcy, Deceased, etc.).

**Physical Description:**

- Automated interface for all informaton going to and coming from collection agencies.
- Leverage automated calls and/or emails to remind customers that closing bill is due and offer routing to BillMatrix for immediate payment.
- Implement software or 3rd party solution to obtain updated address for customers with closed account to ensure that customer receives their closing bill.

**Project Justification:**

- Increase the scope and accuracy of information available to Company regarding: Company contracted agency activities, performance, and compliance.
- More easily manage and make adjustments to collection agency referral percentages at all levels of the receivable management process (e.g., Primary, Secondary, Tertiary, Bankruptcy, Deceased, etc.).
- Enhance the reporting associated with receivable recoveries to improve Company analytics and net realizable value of receivables, and

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00764.0  
Category: B. CS - Office Operations  
Category-Sub: 4. Business Optimization  
Workpaper Group: 00764B - PT14875 Collections Optimization Phase 2

**Forecast Methodology:**

**Labor - Zero-Based**

Estimate based on internal labor hours quotations

**Non-Labor - Zero-Based**

Estimate based on vendor quotations

**NSE - Zero-Based**

N/A

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**Beginning of Workpaper Sub Details for  
Workpaper Group 00764B**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00764.0  
 Category: B. CS - Office Operations  
 Category-Sub: 4. Business Optimization  
 Workpaper Group: 00764B - PT14875 Collections Optimization Phase 2  
 Workpaper Detail: 00764B.001 - Implement 3rd Party Collection Middleware to interface with collection agencies.  
 In-Service Date: 10/31/2014  
 Description:

		Forecast In 2013 \$(000)		
Years		2014	2015	2016
Labor		267	0	0
Non-Labor		107	0	0
NSE		0	0	0
	<b>Total</b>	<b>374</b>	<b>0</b>	<b>0</b>
FTE		2.6	0.0	0.0

*Note: Totals may include rounding differences.*

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**Beginning of Workpaper Group**  
**00764C - PT14877 Collections Optimization Phase 3**

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Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00764.0  
Category: B. CS - Office Operations  
Category-Sub: 4. Business Optimization  
Workpaper Group: 00764C - PT14877 Collections Optimization Phase 3

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Labor	Zero-Based	0	0	0	0	0	282	136	0
Non-Labor	Zero-Based	0	0	0	0	0	365	121	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>647</b>	<b>257</b>	<b>0</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	2.8	1.3	0.0

**Business Purpose:**

Improvements to the back office Duplication Customer Investigation and ID Validation processes have been identified to improve overall collections and bad debt write-offs:  
 Process/Challenge Questions

- 1) Enhanced ID Validation
- 2) Improved Turn-on Search Customer/Customer Matching Process (revised focus away from exact first and last name match)
- 3) Customer Information System (CIS) weekly Sweep changes (more strict/automated criteria matches, fewer less strict criteria matches entering Duplicate Customer Investigation work queue).
- 4) Duplicate Customer Investigation work queue processing improvements

**Physical Description:**

Residential CSR and Web Turn-ons impacting downstream DCI and ID Validation processes.

**Project Justification:**

Enhanced customer match process to locate potential existing account and bad debt at turn-on, rather than downstream months later in the back office when the customer has both an old and new account with bad debt. CCC turn-on talk time reduction when an existing customer account is located and service is transferred/bad debt is identified, rather than setting up a new account. Reduced backlog of back office DCIs and ID Validations (back office/branch office), including associated labor costs. Reduced bad debt/uncollectible write-offs. Improved customer service/satisfaction by reducing paperwork and manual steps required to start service.

*Note: Totals may include rounding differences.*

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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00764.0  
Category: B. CS - Office Operations  
Category-Sub: 4. Business Optimization  
Workpaper Group: 00764C - PT14877 Collections Optimization Phase 3

**Forecast Methodology:**

**Labor - Zero-Based**

Estimate based on internal labor hours quotations

**Non-Labor - Zero-Based**

Estimate based on vendor quotations

**NSE - Zero-Based**

N/A

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**Beginning of Workpaper Sub Details for  
Workpaper Group 00764C**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00764.0  
 Category: B. CS - Office Operations  
 Category-Sub: 4. Business Optimization  
 Workpaper Group: 00764C - PT14877 Collections Optimization Phase 3  
 Workpaper Detail: 00764C.001 - Phase III  
 In-Service Date: 04/30/2015  
 Description:

		Forecast In 2013 \$(000)		
Years		2014	2015	2016
Labor		282	136	0
Non-Labor		365	121	0
NSE		0	0	0
	<b>Total</b>	<b>647</b>	<b>257</b>	<b>0</b>
FTE		2.8	1.3	0.0

*Note: Totals may include rounding differences.*

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Capital Workpapers

**Beginning of Workpaper Group**  
**00764G - PT15878 Collections Optimization Phase 4**

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Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00764.0  
 Category: B. CS - Office Operations  
 Category-Sub: 4. Business Optimization  
 Workpaper Group: 00764G - PT15878 Collections Optimization Phase 4

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
<b>Years</b>									
Labor	Zero-Based	0	0	0	0	0	0	0	1,067
Non-Labor	Zero-Based	0	0	0	0	0	0	0	2,300
NSE	Zero-Based	0	0	0	0	0	0	0	0
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,367</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5

**Business Purpose:**

Implement external Credit & Collections Module  
 1) Implement Customer Segmentation to determine "Unwilling to Pay", "Late Payers", and "Unable to Pay" customers.  
 Provide ability to optimize priority of orders.  
 2) Use external module to prioritize collect or close orders -- address "Unwilling to Pay" as the highest priority  
 3) Implement External Collection Timeline be able to reduce timeline and provide flexibility

**Physical Description:**

Collect & Close Orders, and the Collections Timeline

**Project Justification:**

Increase effectiveness of collect or close order to change customer behavior. Decrease collect or close orders over time, increase full and partial payments, reduce cash flow, reduce bad debts, reduce collection agency commission fees, and increase net working capital.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00764.0  
Category: B. CS - Office Operations  
Category-Sub: 4. Business Optimization  
Workpaper Group: 00764G - PT15878 Collections Optimization Phase 4

**Forecast Methodology:**

**Labor - Zero-Based**

Estimate based on internal labor hours quotations

**Non-Labor - Zero-Based**

Estimate based on vendor quotations

**NSE - Zero-Based**

N/A

Southern California Gas Company  
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**Beginning of Workpaper Sub Details for  
Workpaper Group 00764G**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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SCG/CS - INFORMATION & OFFICE OPERATIONS /Exh No:SCG-11-WP/Witness: E. Goldman  
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Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00764.0  
 Category: B. CS - Office Operations  
 Category-Sub: 4. Business Optimization  
 Workpaper Group: 00764G - PT15878 Collections Optimization Phase 4  
 Workpaper Detail: 00764G.001 - Implement external Credit & Collections Module  
 In-Service Date: 12/31/2016  
 Description:

		Forecast In 2013 \$(000)		
Years		2014	2015	2016
Labor		0	0	1,067
Non-Labor		0	0	2,300
NSE		0	0	0
	Total	0	0	3,367
FTE		0.0	0.0	10.5

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
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Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

**Beginning of Workpaper Group**  
**00764J - PT81418 Customer Data Controls Phase 1**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
Page 1 of 5

SCG/CS - INFORMATION & OFFICE OPERATIONS /Exh No:SCG-11-WP/Witness: E. Goldman  
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Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00764.0  
 Category: B. CS - Office Operations  
 Category-Sub: 3. Mandated  
 Workpaper Group: 00764J - PT81418 Customer Data Controls Phase 1

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
<b>Years</b>									
Labor	Zero-Based	0	0	0	0	0	956	0	0
Non-Labor	Zero-Based	0	0	0	0	0	764	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,720</b>	<b>0</b>	<b>0</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	9.4	0.0	0.0

**Business Purpose:**

Implement protection for sensitive data such as: Social Security Number (SSN), Birth Date, CA Driver's License, Bank Routing & Account Numbers, and Credit Score Information  
 Provide audit trail on accessing the protected data fields and generate reports to support audits  
 Implement an automated process to purge expired CIS records to stay in compliance with "SoCalGas Customer Data Privacy"  
 Provide audit trail for purged records and generate reports to support audits

**Physical Description:**

Audit MCA (Management Corrective Action):  
 Meet "Southern California Gas Company (SCG) Customer Data Privacy" policies and practices. These policies reflect CA State privacy and data security laws and CPUC rules with regards to privacy and security of customer consumption data generated by smart meters.  
 Meet Sempra Record Retention Policies

**Project Justification:**

Compliance with "SCG Customer Data Privacy" policies and practices  
 Compliance with Sempra Record Retention Policies  
 Avoidance of liability for Theft / Misuse of customer information  
 Improvement of CIS Performance due to reduced database table content

*Note: Totals may include rounding differences.*

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted

Southern California Gas Company  
2016 GRC - APP  
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Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00764.0  
Category: B. CS - Office Operations  
Category-Sub: 3. Mandated  
Workpaper Group: 00764J - PT81418 Customer Data Controls Phase 1

**Forecast Methodology:**

**Labor - Zero-Based**

The forecast is based upon the current project timeline.

**Non-Labor - Zero-Based**

The forecast is based upon the current project timeline.

**NSE - Zero-Based**

N/A

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

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2016 GRC - APP  
Capital Workpapers

**Beginning of Workpaper Sub Details for  
Workpaper Group 00764J**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
Page 4 of 5

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00764.0  
 Category: B. CS - Office Operations  
 Category-Sub: 3. Mandated  
 Workpaper Group: 00764J - PT81418 Customer Data Controls Phase 1  
 Workpaper Detail: 00764J.001 - Customer Data Controls  
 In-Service Date: 12/31/2014  
 Description:

		Forecast in 2013 \$(000)		
Years		2014	2015	2016
Labor		956	0	0
Non-Labor		764	0	0
NSE		0	0	0
	<b>Total</b>	<b>1,720</b>	<b>0</b>	<b>0</b>
FTE		9.4	0.0	0.0

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
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Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

**Beginning of Workpaper Group**  
**00764A - PT14843 Customer Data Control - Phase II**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
Page 1 of 5

SCG/CS - INFORMATION & OFFICE OPERATIONS /Exh No:SCG-11-WP/Witness: E. Goldman  
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Southern California Gas Company  
2016 GRC - APP  
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Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00764.0  
 Category: B. CS - Office Operations  
 Category-Sub: 3. Mandated  
 Workpaper Group: 00764A - PT14843 Customer Data Control - Phase II

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Labor	Zero-Based	0	0	0	0	0	55	527	0
Non-Labor	Zero-Based	0	0	0	0	0	0	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>55</b>	<b>527</b>	<b>0</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.5	5.2	0.0

**Business Purpose:**

Implement an automated process to purge expired records to stay in compliance with "SoCalGas Customer Data Privacy"  
 Provide audit trail for purged records and generate reports to support audits

**Physical Description:**

Purge Records for MyAccount system and Data Warehouse

**Project Justification:**

Compliance with "SCG Customer Data Privacy" policies and practices  
 Compliance with Sempra Record Retention Policies  
 Avoidance of liability for Theft / Misuse of customer information

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00764.0  
Category: B. CS - Office Operations  
Category-Sub: 3. Mandated  
Workpaper Group: 00764A - PT14843 Customer Data Control - Phase II

**Forecast Methodology:**

**Labor - Zero-Based**

Estimate based on internal labor hours quotations

**Non-Labor - Zero-Based**

Estimate based on vendor quotations

**NSE - Zero-Based**

Based on general HW list price estimates

Southern California Gas Company  
2016 GRC - APP  
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Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

**Beginning of Workpaper Sub Details for  
Workpaper Group 00764A**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
Page 4 of 5

Southern California Gas Company  
2016 GRC - APP  
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Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00764.0  
 Category: B. CS - Office Operations  
 Category-Sub: 3. Mandated  
 Workpaper Group: 00764A - PT14843 Customer Data Control - Phase II  
 Workpaper Detail: 00764A.001 - Customer Data Control Phase II  
 In-Service Date: 08/31/2015  
 Description:

		Forecast in 2013 \$(000)		
Years		2014	2015	2016
Labor		55	527	0
Non-Labor		0	0	0
NSE		0	0	0
	Total	55	527	0
FTE		0.5	5.2	0.0

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

**Beginning of Workpaper Group**  
**00764D - PT14912 3rd Party Data Request Web Portal**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
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SCG/CS - INFORMATION & OFFICE OPERATIONS /Exh No:SCG-11-WP/Witness: E. Goldman  
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Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00764.0  
 Category: B. CS - Office Operations  
 Category-Sub: 3. Mandated  
 Workpaper Group: 00764D - PT14912 3rd Party Data Request Web Portal

**Summary of Results (Constant 2013 \$ in 000s):**

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
<b>Years</b>									
Labor	Zero-Based	0	0	0	0	0	0	282	0
Non-Labor	Zero-Based	0	0	0	0	0	0	411	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>693</b>	<b>0</b>
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0

**Business Purpose:**

Create Web Portal for 3rd Party Data Request. Will allow a single point of contact for energy usage request data. Data Warehouse will have additional data and cubes put in place so data requests can be fulfilled in the mandated timeframe.

- A single point of contact for energy usage data requests
- Create standard energy usage data access reports in commonly requested formats
- Within 7 business days, respond to requester to let them know the application is being processed and/or notify the requestor of any problems with the application
- Within 30 days, provide the requested data and/or detail why the response was not provided
- Use a standard confidentiality agreement that is consistent across the IOUs
- Create an Energy Usage Data Access Advisory Committee
- The process would not require or authorize an IOU to violate any existing privacy or information security law
- The outputs to the data requests would be in standardized formats
- Standard mechanisms will be used for securely delivering data

**Physical Description:**

3rd Party Data Request Web Portal. Additional usage data provided in Data Warehouse for fulfilling data requests.

**Project Justification:**

Regulatory Mandated.

- A single point of contact for energy usage data requests
- Create standard energy usage data access reports in commonly requested formats
- Within 7 business days, respond to requester to let them know the application is being processed and/or notify the requestor of any problems with the application
- Within 30 days, provide the requested data and/or detail why the response was not provided
- Use a standard confidentiality agreement that is consistent across the IOUs
- Create an Energy Usage Data Access Advisory Committee
- The process would not require or authorize an IOU to violate any existing privacy or information security law
- The outputs to the data requests would be in standardized formats
- Standard mechanisms will be used for securely delivering data

*Note: Totals may include rounding differences.*

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted

Southern California Gas Company  
2016 GRC - APP  
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Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Christopher R. Olmsted  
Budget Code: 00764.0  
Category: B. CS - Office Operations  
Category-Sub: 3. Mandated  
Workpaper Group: 00764D - PT14912 3rd Party Data Request Web Portal

**Forecast Methodology:**

**Labor - Zero-Based**

Estimate based on internal labor hours quotations

**Non-Labor - Zero-Based**

Estimate based on vendor quotations

**NSE - Zero-Based**

N/A

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

**Beginning of Workpaper Sub Details for  
Workpaper Group 00764D**

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-18-CWP/Witness: C. Olmsted  
Page 4 of 5

Southern California Gas Company  
2016 GRC - APP  
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Southern California Gas Company  
2016 GRC - APP  
Capital Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Christopher R. Olmsted  
 Budget Code: 00764.0  
 Category: B. CS - Office Operations  
 Category-Sub: 3. Mandated  
 Workpaper Group: 00764D - PT14912 3rd Party Data Request Web Portal  
 Workpaper Detail: 00764D.001 - Create Web Portal for 3rd Party Data Request. Will allow a single point of contact for  
 In-Service Date: 09/30/2015  
 Description:

		Forecast in 2013 \$(000)		
Years		2014	2015	2016
Labor		0	282	0
Non-Labor		0	411	0
NSE		0	0	0
	<b>Total</b>	<b>0</b>	<b>693</b>	<b>0</b>
FTE		0.0	2.8	0.0

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Exh No:SCG-11-IT Capital Projects											
Witness Name		Evan D. Goldman									
Constant 2013\$ in Thousands											
		Adjusted Recorded					Forecast				
<b>Capital Project Name</b>		<b>WP#</b>	<b>Project #</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Customer Order Communication		00764E	14914						\$241	\$913	
Voice Recording and QA Tools - Collections and Billing		00764H	15925							\$403	
Integrated Customer Data & Analytics		00784A	14826						\$1,435	\$3,080	\$326
My Account Mobile 1C		00774M	81423					\$949	\$1,273	\$416	
SCG My Business Account		00776V	81436					\$58	\$1,958	\$2,012	\$1,615
SCG IVR Ph 4		00774N	81424					\$1,320	\$1,742	\$151	
<b>Sub-Total Improving Customer Experience</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,327</b>	<b>\$6,649</b>	<b>\$6,975</b>	<b>\$1,941</b>
My Account Technology Refresh		00774L	81435					\$915	\$7,874	\$6,183	\$295
CCC Avaya System Refresh		00770J	51809								\$753
CCC Genesys Upgrade		00774E	15823								\$601
Small Cap Requests (Customer Operations Technology Application Server)		00777C	15920							\$10	\$10
<b>Sub-Total Obsolescence and Technology Refresh</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$915</b>	<b>\$7,874</b>	<b>\$6,193</b>	<b>\$1,659</b>
Collections Optimization Phases 1-4		00784B 00764B 00764C 00764G	81415 14875 14877 15878					\$521	\$1,312	\$257	\$3,367
<b>Sub-Total Operational Efficiency/Continuous Improvement</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$521</b>	<b>\$1,312</b>	<b>\$257</b>	<b>\$3,367</b>
Customer Data Controls Phases 1-2		00764J 00764A	81418 14843					\$886	\$1,775	\$527	
3rd Party Data Request Web Portal		00764D	14912							\$693	
<b>Sub-Total Mandated</b>				<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$886</b>	<b>\$1,775</b>	<b>\$1,220</b>	<b>\$0</b>
Other Customer Service projects in IT Capital History				<b>\$ 4,511</b>	<b>\$ 5,366</b>	<b>\$ 5,062</b>	<b>\$ 3,045</b>	<b>\$2,481</b>			
<b>GRAND TOTAL ALL</b>				<b>\$4,511</b>	<b>\$5,366</b>	<b>\$5,062</b>	<b>\$3,045</b>	<b>\$7,130</b>	<b>\$17,610</b>	<b>\$14,645</b>	<b>\$6,967</b>
<b>Year to Year Explanations</b>											
<b>2009-2010:</b>											
-Completion of Biennial Cost Allocation Proceedings (BCAP) and Bill Redesign projects in 2010											
-Ramp-up of Java Development Kit/Weblogic Server/Weblogic Portal Upgrade Upgrade project											
-Incremental spend on OpEx Customer Care projects											
<b>2010-2011:</b>											
-Completion of Java Development Kit/Weblogic Server/Weblogic Portal Upgrade Upgrade project in 2011											
-Incremental spend on OpEx Customer Care projects											
<b>2011-2012:</b>											
-Significant reduction in OpEx Customer Care Spend as many OpEx projects complete											
-Start-up of Bill Inserting Equipment Replacement project											
<b>2012-2013:</b>											
-Start-up of CIS Customer Data Controls, Collections Optimization, My Account Mobile 1c, IVR Phase 4, C&I My Account and My Account Technology Refresh projects											
-Start-up and implementation of Customer Preference Center project											
-Completion of Bill Inserting Equipment Project											
-Completion of OpEx Customer Care projects											
<b>Other factors that impact changes in 2009-2013 historical spend as well as 2014-2016 projected spend:</b>											
-The annual IT Capital Prioritization Process. As stated by Witness Christopher Olmsted, "Rankings are determined based on various factors including, but not limited to, regulatory requirements, critical service maintenance needs and/or cost benefit analyses". A complete explanation of the IT Capital Prioritization Process can be found in Ex. SCG-18 pages CRO 20 - CRO 22.											
-The Advanced Meter project required changes to several key systems that support Customer Service Office Operations including the Customer Information System (CIS) and My Account. The resources as well as development and testing environments available to support changes to each system are limited. Accordingly, capital changes to impacted systems have also been limited during the periods of significant Advanced Meter application development.											
- The My Account application is a SDG&E asset that supports both SDG&E and SoCalGas. Historical capital costs for My Account development have been recorded in the SDG&E GRC. The My Account Technology Refresh Project will create a distinct SoCalGas asset for My Account and, as such, costs have been recorded / forecasted for SoCalGas.											
- Prior to 2013, IT employees supporting SoCalGas customer applications were SDG&E employees and as a result capital IT labor is not reflected in SoCalGas historical recorded project costs. In 2013, IT employees supporting SoCalGas customer applications transitioned from SDG&E to SoCalGas and 2013 recorded capital costs as well as 2014-16 projections reflect this transition.											

ORA Deficiency Data Request

SCG-ORA-DEF-004-TLG

Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200000- CCC Operations</b>											
Labor	35,924	38,010	34,954	32,059	30,875	2,086	(3,056)	(2,895)	(1,184)		
NLbr	390	448	479	374	347	58	31	(105)	(27)		
NSE						0	0	0	0		
200000.000 Total	36,314	38,458	35,433	32,433	31,222	2,144	(3,025)	(3,000)	(1,211)	Page 89 of 209	
CSR Calls	7,215,157	7,215,202	7,023,482	6,245,767	6,312,561						
Total Calls (CSR + IV)	8,763,306	8,965,582	8,796,575	8,219,560	9,005,758						
AHT	4:01	4:20	4:15	4:11	4:15						
CSR LOS	71.2%	63.8%	71.9%	68.8%	59.4%						

Note: Totals may include rounding differences.

ORA Deficiency Data Request  
 SCG-ORA-DEF-004-TLG  
 Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200000- CCC Operations</b>											
Labor	35,924	38,010	34,954	32,059	30,875	2,086	(3,056)	(2,895)	(1,184)		
NLbr	390	448	479	374	347	58	31	(105)	(27)		
NSE						0	0	0	0		
200000.000 Total	36,314	38,458	35,433	32,433	31,222	2,144	(3,025)	(3,000)	(1,211)	Page 89 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
	2009-10										
Labor											
This Labor increase was primarily driven by an increase in AHT from 2009-2010. This increase in AHT was mostly attributed to a learning curve as CSRs adjusted to changes in the Phone and IVR system. The Labor increase was partially offset by a reduction in CSR LOS.						2,050					
This small Labor increase is due to a full year staffing of supervisor positions that charged partial staffing in 2009.						36					
						2,086					
NLbr											
The Non-labor charges were primarily driven by an increase in language line charges due to a higher volume of language line calls in 2010 and increases in Commercial and Industrial telecommunications charges. Other minor fluctuations were negligible.						58					
						2,144					
	2010-11										
Labor											
This Labor decrease was primarily driven by a reduction in CSR call volume and AHT. The labor decrease was partially offset by an increase in CSR LOS.							(3,056)				

Note: Totals may include rounding differences.

ORA Deficiency Data Request  
 SCG-ORA-DEF-004-TLG  
 Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200000- CCC Operations</b>											
Labor	35,924	38,010	34,954	32,059	30,875	2,086	(3,056)	(2,895)	(1,184)		
NLbr	390	448	479	374	347	58	31	(105)	(27)		
NSE						0	0	0	0		
200000.000 Total	36,314	38,458	35,433	32,433	31,222	2,144	(3,025)	(3,000)	(1,211)	Page 89 of 209	
NLbr							(3,056)				
The Non-Labor Increases were primarily driven by increases in temporary agency labor to support supervisors in coaching employees and additional office supplies. The increases were partially offset by decreases in Language Line charges due to a lower volume of language line calls in 2011 and a shift of Commercial and Industrial telecommunications charges from CCC Operations to CCC Support. Other minor fluctuations were negligible.							31				
							(3,025)				
2011-12											
Labor								(3,099)			
This Labor decrease was primarily driven by a reduction in CSR call volume mainly due to increased IVR self service resulting from usability enhancements; a reduction of AHT; and a reduction of CSR LOS.											
This Labor increase was an addition of supervisors to improve span of control								111			
								(2,895)			
NLbr											
The Non-Labor reductions were primarily driven by reductions in temporary agency labor to support supervisors in coaching employees. Other minor fluctuations were negligible.								(105)			
								(3,000)			

Note: Totals may include rounding differences.

ORA Deficiency Data Request

SCG-ORA-DEF-004-TLG

Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200000- CCC Operations</b>											
Labor	35,924	38,010	34,954	32,059	30,875	2,086	(3,056)	(2,895)	(1,184)		
NLbr	390	448	479	374	347	58	31	(105)	(27)		
NSE						0	0	0	0		
200000.000 Total	36,314	38,458	35,433	32,433	31,222	2,144	(3,025)	(3,000)	(1,211)	Page 89 of 209	
2012-13											
Labor											
This Labor decrease was primarily driven by a reduction in CSR LOS and partially offset by an increase in Call Volume and AHT.										(1,146)	
This Labor decrease was caused by partial year staffing of administrative positions										(38)	
										(1,184)	
NLbr											
The Non-Labor decrease is negligible.										(27)	
										(1,211)	

Note: Totals may include rounding differences.

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 Question B.1

Exh No:SCG-11-WP										
Witness Name	Evan D. Goldman									
2013\$ in Thousands										
	Adjusted Recorded					Variances by Year				Workpaper Page
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13	

Note: Totals may include rounding differences.

ORA Deficiency Data Request  
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 Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200001 - CCC Support</b>											
Labor	5,258	5,133	5,157	5,455	6,015	(125)	24	298	560		
NLbr	2,658	3,968	3,113	3,417	3,175	1,310	(855)	304	(242)		
NSE	0	0	0	0	0	0	0	0	0		
200001.000 Total	7,916	9,101	8,270	8,872	9,190	1,185	(831)	602	318	Page 105 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
	2009-10										
Labor											
This Labor decrease was a combination of the elimination of Special Project Administrator Position and partial year staffing for analyst and training positions that were staffed fully in 2009. The decrease is offset by additions to Special Investigations and Outbound Dialing, along with some clerical positions that were fully staffed in 2010, but only partially staffed in 2009.						(125)					
NLbr											
This Non-labor increase primarily resulted from software maintenance fees associated with Customer Contact Center technology. The new software was implemented as part of IT capital projects. Other yearly fluctuations in software maintenance were negligible.						907					
This Non-Labor increase includes minor fluctuations in miscellaneous Non-Labor that were negligible.						32					
This Non-Labor increase in telecommunications was due to an increase in AHT.						371					
						1,310					
						1,185					
	2010-11										
Labor											
This Labor Increase was minimal and reflects small fluctuations in staffing from 2010-11.							40				

Note: Totals may include rounding differences.

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Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200001 - CCC Support</b>											
Labor	5,258	5,133	5,157	5,455	6,015	(125)	24	298	560		
NLbr	2,658	3,968	3,113	3,417	3,175	1,310	(855)	304	(242)		
NSE	0	0	0	0	0	0	0	0	0		
200001.000 Total	7,916	9,101	8,270	8,872	9,190	1,185	(831)	602	318	Page 105 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
This Labor decrease is the result of one less work day in 2011							(16)				
							24				
NLbr											
This Non-Labor decrease in software and maintenance charges is primarily related to timing for services that were performed in 2011 and billed in 2012.							(532)				
This Non-Labor increase includes minor fluctuations in miscellaneous Non-Labor							15				
This Non-Labor decrease in telecommunications is due to reductions in Call Volume and AHT that are partially offset by increased Commercial and Industrial telecommunication charges previously charged to CCC Operations.							(338)				
							(855)				
							(831)				
2011-12											
Labor											
This Labor Increase was minimal and reflects small fluctuations in staffing from 2011-12.								70			
This Labor increase was the result of the creation of the Customer Experience Team								228			
								298			
NLbr											

Note: Totals may include rounding differences.

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 Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200001 - CCC Support</b>											
Labor	5,258	5,133	5,157	5,455	6,015	(125)	24	298	560		
NLbr	2,658	3,968	3,113	3,417	3,175	1,310	(855)	304	(242)		
NSE	0	0	0	0	0	0	0	0	0		
200001.000 Total	7,916	9,101	8,270	8,872	9,190	1,185	(831)	602	318	Page 105 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
This Non-Labor Increase in software and maintenance fees was primarily due to timing for services that were performed in 2011 and billed in 2012, along with fees for the new Performance Management System and a set-up fee for an upgraded version of channel analytics tools.								367			
This Non-Labor decrease includes minor fluctuations in miscellaneous Non-Labor								(57)			
This Non-Labor increase is for the Implementation of new on-line customer knowledge base								161			
This Non-Labor decrease in telecommunications is due to reduction in CSR Call Volume, partially offset by an increase in Commercial and Industrial telecommunication costs previously charged to CCC Operations.								(167)			
								304			
								602			
2012-13											
Labor											
This increase in Labor was primarily driven by additions to the staff to help manage LOS and the addition of a Technology Manager and Training Specialist. Other minor fluctuations were negligible.									327		
This Labor increase was the result of new positions in Customer Experience									233		
									560		
NLbr											

Note: Totals may include rounding differences.

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Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200001 - CCC Support</b>											
Labor	5,258	5,133	5,157	5,455	6,015	(125)	24	298	560		
NLbr	2,658	3,968	3,113	3,417	3,175	1,310	(855)	304	(242)		
NSE	0	0	0	0	0	0	0	0	0		
200001.000 Total	7,916	9,101	8,270	8,872	9,190	1,185	(831)	602	318	Page 105 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
This Non-Labor decrease in software and maintenance fees was primarily due to a renegotiation of contracts and the absence of the 2012 set up fee for an upgraded analytics									(196)		
2012 charges for implementation of new on-line customer knowledge base were not repeated in 2012, but will occur again in 2014.									(161)		
This Non-Labor decrease includes minor fluctuations in miscellaneous Non-Labor									(16)		
This Non-Labor increase in telecommunications is due to increases in Call Volume and AHT									131		
									(242)		
									318		

Note: Totals may include rounding differences.

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 Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200002 - Branch Offices</b>											
Labor	8,378	8,656	8,413	8,291	8,404	278	(243)	(122)	113		
NLbr	2,740	2,661	2,926	2,732	2,536	(79)	265	(194)	(196)		
NSE						0	0	0	0		
200002.000 Total	11,118	11,317	11,339	11,023	10,940	199	22	(316)	(83)	Page 79 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
	2009-10										
Labor											
This Labor increase is primarily driven by higher employee turnover that required time to fill positions and resulted in additional overtime paid while positions were being filled. This increase also represents an overall increase in pay rates for the staff.						278					
NLbr											
This decrease in Non-Labor is primarily due to reduction Branch Security costs.						(79)					
						199					
	2010-11										
Labor											
This Labor decrease is primarily driven by lower employee turnover that required less time to filling positions and less overtime paid while positions were being filled. This decrease also represents an overall decrease in pay rates for the staff.							(243)				
NLbr											
This increase in Non-Labor is primarily driven by higher vendor fees for payment collection services due to increased volume and agent fees, and Security services for 6 additional Branch Offices							265				
							22				
	2011-12										

Note: Totals may include rounding differences.

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Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200002 - Branch Offices</b>											
Labor	8,378	8,656	8,413	8,291	8,404	278	(243)	(122)	113		
NLbr	2,740	2,661	2,926	2,732	2,536	(79)	265	(194)	(196)		
NSE						0	0	0	0		
200002.000 Total	11,118	11,317	11,339	11,023	10,940	199	22	(316)	(83)	Page 79 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
Labor											
This Labor decrease is primarily driven by lower employee turnover that required less time to filling positions and less overtime paid while positions were being filled. This decrease also represents an overall decrease in pay rates for the staff.								(122)			
NLbr											
This Non-Labor decrease was primarily driven by a reduction in vendor fees for payment collection services due to a lower volume of activity.								(194)			
								(316)			
2012-13											
Labor											
This Labor increase is primarily driven by higher employee turnover that required time to fill positions and resulted in additional overtime paid while positions were being filled. This increase also represents an increase in pay rates for the staff.									113		
NLbr											
This Non-Labor decrease was primarily driven by a reduction in vendor fees for payment collection services due to a lower volume of activity.									(196)		
									(83)		

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Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200003 - Billing Services</b>											
Labor	8,085	7,792	7,428	7,304	6,834	(293)	(364)	(124)	(470)		
NLbr	97	106	168	118	98	9	62	(50)	(20)		
NSE	-	-	-	-	-	0	0	0	0		
200003.000 Total	8,182	7,898	7,596	7,422	6,932	(284)	(302)	(174)	(490)	Page 27 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
2009-10											
Labor											
This Labor decrease in 2009-2010 is primarily due to efficiencies gained in Manual Billing Exception transactions for the Mass Market Billing group.						(138)					
This Labor decrease is primarily related partial year staffing of two Major Market Billing Analysts in 2010 and employee turnover that lead to change in pay rates.						(154)					
						(293)					
NLbr											
This Non-Labor increase is negligible						9					
						(284)					
2010-11											
Labor											
This Labor decrease in 2010-2011 is primarily due to efficiencies gained in Manual Billing Exception transactions for the Mass Market Billing group.							(436)				
This Labor increase is primarily related to full year staffing of the two Major Market Billing Analysts in 2011 that were partially staffed in 2010.							72				
							(364)				
NLbr											

Note: Totals may include rounding differences.

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Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200003 - Billing Services</b>											
Labor	8,085	7,792	7,428	7,304	6,834	(293)	(364)	(124)	(470)		
NLbr	97	106	168	118	98	9	62	(50)	(20)		
NSE	-	-	-	-	-	0	0	0	0		
200003.000 Total	8,182	7,898	7,596	7,422	6,932	(284)	(302)	(174)	(490)	Page 27 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
This Non-Labor increase is primarily due to service and material expenses related to the Bill Re-design project.							62				
2011-12							(302)				
Labor	This Labor decrease in 2011-2012 is primarily due to efficiencies gained in Manual Billing Exception transactions for the Mass Market Billing group that resulted from the Bill re-design and Metric projects.								(124)		
NLbr	This Non-Labor decrease is primarily due to service and material expenses related to the Bill Redesign project that were needed in 2011 and not required in 2012								(50)		
2012-13								(174)			
Labor	This Labor decrease in 2012-2013 was driven by implementation of efficiency and automation enhancements in 2012 that fully impacted performance in 2013.									(405)	
This labor decrease was the result of partial year staffing for a Billing Analyst and 2 Advisor/Analysts in the Major Markets Billing group.									(65)		
									(470)		

Note: Totals may include rounding differences.

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Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200003 - Billing Services</b>											
Labor	8,085	7,792	7,428	7,304	6,834	(293)	(364)	(124)	(470)		
NLbr	97	106	168	118	98	9	62	(50)	(20)		
NSE	-	-	-	-	-	0	0	0	0		
200003.000 Total	8,182	7,898	7,596	7,422	6,932	(284)	(302)	(174)	(490)	Page 27 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
NLbr											
This Non-Labor decrease is negligible										(20)	
										(490)	

Note: Totals may include rounding differences.

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 Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200004 - Credit &amp; Collections</b>											
Labor	3,217	2,924	2,911	2,928	2,863	(293)	(13)	17	(65)		
NLbr	1,030	962	1,123	875	1,073	(68)	161	(248)	198		
NSE						0	0	0	0		
200004.000 Total	4,247	3,886	4,034	3,803	3,936	(361)	148	(231)	133	Page 39 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
<b>2009-10</b>											
<b>Labor</b>											
This Labor reduction primarily driven by movement of a management position to Field Staff in 2009; along with partial year staffing that resulted from employee turnover.						(293)					
<b>NLbr</b>											
This Non-labor decrease is primarily driven by reduced collection agency commission expenses in 2010 due to a lower dollar amount collected by 3rd party agencies.						(68)					
						(361)					
<b>2010-11</b>											
<b>Labor</b>											
This Labor decrease is negligible							(13)				
<b>NLbr</b>											
This Non-labor increase is driven by an increase in collection efficiency consulting service expenses in 2011, partially offset by reduced credit bureau expense in 2011.							161				

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Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200004 - Credit &amp; Collections</b>											
Labor	3,217	2,924	2,911	2,928	2,863	(293)	(13)	17	(65)		
NLbr	1,030	962	1,123	875	1,073	(68)	161	(248)	198		
NSE						0	0	0	0		
200004.000 Total	4,247	3,886	4,034	3,803	3,936	(361)	148	(231)	133	Page 39 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
							148				
	<b>2011-12</b>										
<b>Labor</b>											
This Labor increase is negligible											17
<b>NLbr</b>											
This Non-Labor decrease is primarily driven by a decrease in collection efficiency consulting service expenses, reduced collection agency expense & credit bureau expense in 2012, and reduced printed materials & office supplies expense in 2012.											(248)
											(231)
	<b>2012-13</b>										
<b>Labor</b>											
This Labor decrease is negligible											(65)
<b>NLbr</b>											
This Non-labor increase primarily driven by increased collection agency expense in 2013 and courtesy collection call expense in 2013, partially offset by reduced credit bureau expense in 2013 and reduced office furniture & supplies expense in 2013.											198
											133

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Exh No:SCG-11-WP										
Witness Name	Evan D. Goldman									
2013\$ in Thousands										
	Adjusted Recorded					Variances by Year				Workpaper Page
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13	
<b>200004.001 - Credit and Collections Postage</b>										
Labor	-	-	-	-	-	0	0	0	0	
NLbr	-	-	-	-	-	0	0	0	0	
NSE	1,638	1,855	2,182	1,997	1,899	217	327	(185)	(98)	
200004.001 Total	1,638	1,855	2,182	1,997	1,899	217	327	(185)	(98)	Page 64 of 209
<b>Variance Explanation</b>						<b>Variance Amount</b>				
<b>2009-10</b>										
<b>Labor</b>										
<b>NSE</b>										
This Postage increase driven by 20% increase in past due notices mailed to delinquent accounts from 2009 to 2010.						217				

Note: Totals may include rounding differences.

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Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200004.001 - Credit and Collections Postage</b>											
Labor	-	-	-	-	-	0	0	0	0		
NLbr	-	-	-	-	-	0	0	0	0		
NSE	1,638	1,855	2,182	1,997	1,899	217	327	(185)	(98)		
200004.001 Total	1,638	1,855	2,182	1,997	1,899	217	327	(185)	(98)	Page 64 of 209	
<b>Variance Explanation</b>						<b>Variance Amount</b>					
						217					
<b>2010-11</b>											
<b>Labor</b>											
<b>NSE</b>											
This Postage increase driven by 19% increase in past due notices mailed to delinquent accounts from 2010 to 2011.							327				
							327				
<b>2011-12</b>											
<b>Labor</b>											
<b>NSE</b>											
This Postage decrease driven by 9% reduction in past due notices mailed to delinquent accounts from 2011 to 2012.								(185)			
								(185)			
<b>2012-13</b>											
<b>Labor</b>											
<b>NSE</b>											

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Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200004.001 - Credit and Collections Postage</b>											
Labor	-	-	-	-	-	0	0	0	0		
NLbr	-	-	-	-	-	0	0	0	0		
NSE	1,638	1,855	2,182	1,997	1,899	217	327	(185)	(98)		
200004.001 Total	1,638	1,855	2,182	1,997	1,899	217	327	(185)	(98)	Page 64 of 209	
<b>Variance Explanation</b>						<b>Variance Amount</b>					
Postage decrease driven by 5% reduction in past due notices mailed to delinquent accounts from 2012 to 2013. Additional process improvements implemented in 4th quarter 2013. The process of mailing a separate past due notice for residential customers has been discontinued effective September 2013, which contributed to more savings in 2013.									(98)		
									(98)		

Note: Totals may include rounding differences.

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Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200005 - Remittance Processing</b>											
Labor	1,754	1,827	1,813	1,904	1,880	73	(14)	91	(24)		
NLbr	4,814	4,606	5,230	5,027	4,574	(208)	624	(203)	(453)		
NSE				-	-	0	0	0	0		
200005.000 Total	6,568	6,433	7,043	6,931	6,454	(135)	610	(112)	(477)	Page 52 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
	2009-10										
Labor											
This Labor increase is primarily driven by higher employee turnover that required time to fill positions and resulted in additional overtime paid while positions were being filled. This increase is partially offset by a lower pay rate for the staff.						73					
NLbr											
This Labor decrease was primarily driven the purchase of forms in 2009 that were utilized in 2010 and is offset by a toner purchase in 2010 that was used in 2011.						(208)					
						(135)					
	2010-11										
Labor											
This Labor decrease is negligible							(14)				
NLbr											
This Non-Labor increase is primarily driven by the company's decision to utilize inserts for communicating to customers through their Bill mailings. inserts required additional printing, more toner, and a higher sheet count							624				
							610				
	2011-12										

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Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200005 - Remittance Processing</b>											
Labor	1,754	1,827	1,813	1,904	1,880	73	(14)	91	(24)		
NLbr	4,814	4,606	5,230	5,027	4,574	(208)	624	(203)	(453)		
NSE				-	-	0	0	0	0		
200005.000 Total	6,568	6,433	7,043	6,931	6,454	(135)	610	(112)	(477)	Page 52 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
Labor											
This Labor increase is primarily driven by higher employee turnover that required time to fill positions and resulted in additional overtime paid while positions were being filled. This increase is partially offset by a lower pay rate for the staff.								91			
NLbr											
This Non-Labor decrease was primarily driven by a reduction in insert costs. The company began using inserts paid by another department to communicate with customers through their bill.								(203)			
								(112)			
2012-13											
Labor											
This Labor decrease is negligible									(24)		
NLbr											
This Non-Labor decrease is primarily due to a full year reduction of cost associated with no longer utilizing inserts in bills									(453)		
									(477)		

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Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200005.001 - Remittance Processing Postage</b>											
Labor	-	-	-	-	-	0	0	0	0		
NLbr	-	-	-	-	-	0	0	0	0		
NSE	20,554	19,658	18,596	17,976	17,522	(896)	(1,062)	(620)	(454)		
200005.001 Total	20,554	19,658	18,596	17,976	17,522	(896)	(1,062)	(620)	(454)	Page 64 of 209	
<b>Variance Explanation</b>						<b>Variance Amount</b>					
2009-10											
Labor											
NSE											
This decrease in postage is primarily driven by a reduction in paper bills mailed as customers adopt paperless billing, and a lower effective postage rate of \$0.00406.						(896)					

Note: Totals may include rounding differences.

ORA Deficiency Data Request  
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 Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200005.001 - Remittance Processing Postage</b>											
Labor	-	-	-	-	-	0	0	0	0		
NLbr	-	-	-	-	-	0	0	0	0		
NSE	20,554	19,658	18,596	17,976	17,522	(896)	(1,062)	(620)	(454)		
200005.001 Total	20,554	19,658	18,596	17,976	17,522	(896)	(1,062)	(620)	(454)	Page 64 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
						(896)					
	2010-11										
Labor											
NSE											
This decrease in postage is primarily driven by a reduction in paper bills mailed as customers adopt paperless billing, and a lower effective postage rate of \$0.00699.							(1,062)				
							(1,062)				
	2011-12										
Labor											
NSE											
This decrease in postage is primarily driven by a reduction in paper bills mailed as customers adopt paperless billing, offset by a postage rate increase of \$0.00261.								(620)			
								(620)			
	2012-13										
Labor											
NSE											
This decrease in postage is primarily driven by a reduction in paper bills mailed as customers adopt paperless billing, offset by a postage rate increase of \$0.00478.									(454)		
									(454)		

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 Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200006 - Customer Service Other Office Operations and Technology</b>											
Labor	\$2,549	\$2,298	\$2,533	\$2,401	\$2,567	(\$251)	\$234	(\$132)	\$166		
NLbr	\$126	\$59	\$265	\$1,180	\$764	(\$67)	\$206	\$915	(\$417)		
NSE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
Total	\$2,675	\$2,357	\$2,798	\$3,581	\$3,330	(\$318)	\$441	\$783	(\$250)	Page 116 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
2009-10											
Labor											
This Labor decrease is primarily due to fluctuations in staffing for the Business Client Planning Support team that includes an employee going out on Long Term Disability (LTD).						(150)					
This Labor decrease is primarily due to a reorganization in April of 2010 that caused the elimination of a Customer Service Senior Vice President position and was partially offset by the transfer of the Vice President of Customer Operations from a shared service in San Diego to a Non-Shared service at SoCalGas.						(187)					
The labor increase is primarily due to increased support, maintenance and enhancements to various business technology applications.						86					
						(251)					
NLbr											
This Non-Labor decrease is primarily driven by a reduction in employee related expenses related to the reorganization in 2010.						(67)					
						(318)					
2010-11											
Labor											

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 Question B.1

Exh No:SCG-11-WP										
Witness Name	Evan D. Goldman									
2013\$ in Thousands										
	Adjusted Recorded					Variances by Year				Workpaper Page
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13	
<b>200006 - Customer Service Other Office Operations and Technology</b>										
Labor	\$2,549	\$2,298	\$2,533	\$2,401	\$2,567	(\$251)	\$234	(\$132)	\$166	
NLbr	\$126	\$59	\$265	\$1,180	\$764	(\$67)	\$206	\$915	(\$417)	
NSE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total	\$2,675	\$2,357	\$2,798	\$3,581	\$3,330	(\$318)	\$441	\$783	(\$250)	Page 116 of 209
<b>Variance Explanation</b>						<b>Variance Amount</b>				
This Labor increase is primarily driven by an increase in staff in an effort to support and maintain Customer Service Applications and train the new hires for approximately one year by an experienced Supervisor before allowing them to be utilized in other departments.							234			

Note: Totals may include rounding differences.

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 Question B.1

Exh No:SCG-11-WP										
Witness Name	Evan D. Goldman									
2013\$ in Thousands										
	Adjusted Recorded					Variances by Year				Workpaper Page
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13	
<b>200006 - Customer Service Other Office Operations and Technology</b>										
Labor	\$2,549	\$2,298	\$2,533	\$2,401	\$2,567	(\$251)	\$234	(\$132)	\$166	
NLbr	\$126	\$59	\$265	\$1,180	\$764	(\$67)	\$206	\$915	(\$417)	
NSE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total	\$2,675	\$2,357	\$2,798	\$3,581	\$3,330	(\$318)	\$441	\$783	(\$250)	Page 116 of 209
<b>Variance Explanation</b>						<b>Variance Amount</b>				
NLbr										
This Non-Labor increase is primarily due increased software maintenance costs, and professional services, in support of Customer Service initiatives.							206			
							440			
2011-12										
Labor										
This Labor reduction is primarily driven by the shift of three employees hired and trained in 2011 to other departments in 2012. This is partially offset by the addition of a new Project Manager to the Customer Operations Technology PMO group.								(132)		
NLbr										
This Non-Labor increase is primarily due to an increase in advertising & promotion of Self Service/Paperless Billing, an AP Recovery audit fee, and professional services to support of the Customer Service initiatives.								915		
								783		
2012-13										
Labor										

Note: Totals may include rounding differences.

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Question B.1

Exh No:SCG-11-WP										
Witness Name	Evan D. Goldman									
2013\$ in Thousands										
	Adjusted Recorded					Variances by Year				Workpaper Page
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13	
<b>200006 - Customer Service Other Office Operations and Technology</b>										
Labor	\$2,549	\$2,298	\$2,533	\$2,401	\$2,567	(\$251)	\$234	(\$132)	\$166	
NLbr	\$126	\$59	\$265	\$1,180	\$764	(\$67)	\$206	\$915	(\$417)	
NSE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total	\$2,675	\$2,357	\$2,798	\$3,581	\$3,330	(\$318)	\$441	\$783	(\$250)	Page 116 of 209
<b>Variance Explanation</b>						<b>Variance Amount</b>				
This Labor increase is primarily due to the re-organization of Business Planning and Client Support where new positions were added in mid 2013 and the addition of a Project Manager to the Customer Operations Technology PMO group.									166	
NLbr										
The non-labor reduction is primarily due to a one time AP Recovery audit fee in 2012 that was not repeated in 2013 and lower spending for professional services in support of Customer Service Initiatives.									(417)	
									(251)	

Note: Totals may include rounding differences.

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 Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200007 - Measurement Data Ops (MDO)</b>											
Labor	681	764	845	931	874	83	81	86	(57)		
NLbr	458	441	461	475	576	(17)	20	14	101		
NSE						0	0	0	0		
200007.000 Total	1,139	1,205	1,306	1,406	1,450	66	101	100	44	Page 116 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
	2009-10										
Labor											
This Labor Increase is primarily related to the addition of an Admin Clerk in 2010 to support the department workload.											
						83					
NLbr											
This Non-Labor decrease is negligible											
						(17)					
						66					
	2010-11										
Labor											
This Labor increase is primarily related to the addition of a Gas Measurement Analyst in 2011 to support workload.											
							81				

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Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>200007 - Measurement Data Ops (MDO)</b>											
Labor	681	764	845	931	874	83	81	86	(57)		
NLbr	458	441	461	475	576	(17)	20	14	101		
NSE						0	0	0	0		
200007.000 Total	1,139	1,205	1,306	1,406	1,450	66	101	100	44	Page 116 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
NLbr											
This Non-Labor increase is primarily due to higher fees from telecommunications vendors.											
							20				
							101				
	2011-12										
Labor											
This Labor increase is primarily related to the addition of a Gas Measurement Analyst in 2012 to support workload.											
								86			
NLbr											
This Non-Labor increase is primarily due to higher fees from telecommunications vendors.											
								14			
								100			
	2012-13										
Labor											
This Labor decrease is primarily related to the elimination of an Admin Clerk position and an increase in disabilities in 2013.											
									(57)		
NLbr											
This Non-Labor increase is primarily due to higher fees from telecommunications vendors.											
									101		
									44		

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 Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
Revised: 9/2/14											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>2200-0354 - Major Market Credit and Collections</b>											
Labor	1,252	1,297	1,268	1,232	1,182	45	(29)	(36)	(50)		
NLbr	344	316	325	368	306	(28)	9	43	(62)		
NSE			-			0	0	0	0		
2200-0354.000 Total	1,596	1,613	1,593	1,600	1,488	17	(20)	7	(112)	Page 169 of 209	
<b>Variance Explanation</b>						<b>Variance Amount</b>					
2009-10											
Labor											
This Labor increase is primarily related to the full year staffing in 2010 of two Sr Credit/Collection Analyst positions that were added during 2009. These positions addressed new programs that were covered in our GRC-TY2012 filing.											
						45					
NLbr											
This Non-Labor decrease is negligible											
						(28)					
						17					
2010-11											
Labor											
This Labor decrease is negligible											
							(29)				
NLbr											
This Non-Labor increase is negligible											
							9				
							(20)				

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 Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
Revised: 9/2/14											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>2200-0354 - Major Market Credit and Collections</b>											
Labor	1,252	1,297	1,268	1,232	1,182	45	(29)	(36)	(50)		
NLbr	344	316	325	368	306	(28)	9	43	(62)		
NSE			-			0	0	0	0		
2200-0354.000 Total	1,596	1,613	1,593	1,600	1,488	17	(20)	7	(112)	Page 169 of 209	
<b>Variance Explanation</b>						<b>Variance Amount</b>					
2011-12											
Labor											
This Labor decrease is primarily related partial year staffing of Admin Associate position.											
								(36)			
NLbr											
This Non-Labor increase is primarily related to contracted agency fees to temporarily fill Admin. Associate position.											
								43			
								7			
2012-13											
Labor											
This Labor decrease is primarily related to partial year staffing in 2013 for Manager position and Senior Analysts Positions, offset by the full year staffing of Admin. Associate position.											
									(50)		
NLbr											
This Non-Labor decrease is primarily related to the move of our Admin Associate position from contract to a full time position in 2013.											
									(62)		
									(112)		

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 SCG-ORA-DEF-004-TLG  
 Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>2200-0355 - Payment Processing</b>											
Labor	3,098	2,971	2,897	3,055	2,738	(127)	(74)	158	(317)		
NLbr	1,186	852	859	871	892	(334)	7	12	21		
NSE	5	6	6	5	4	1	0	(1)	(1)		
2200-0355.000 Total	4,289	3,829	3,762	3,931	3,634	(460)	(67)	169	(297)	Page 191 of 209	
	<b>Variance Explanation</b>					<b>Variance Amount</b>					
	2009-10										
Labor											
This Labor decrease is primarily driven by employee turnover.											
						(127)					
NLbr											
This Non-Labor Reduction is primarily due to new software purchased in 2009. Subsequent years include maintenance for the software that is less than the 2009 Non-Labor purchase price.											
						(334)					
						(461)					
	2010-11										
Labor											
This Labor decrease is primarily driven by employee turnover.											
							(74)				
NLbr											
This Non-Labor increase is negligible											
							7				
							(67)				

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Question B.1

Exh No:SCG-11-WP										
Witness Name										
Evan D. Goldman										
2013\$ in Thousands										
Adjusted Recorded						Variances by Year				Workpaper Page
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13	
<b>2200-0355 - Payment Processing</b>										
Labor	3,098	2,971	2,897	3,055	2,738	(127)	(74)	158	(317)	
NLbr	1,186	852	859	871	892	(334)	7	12	21	
NSE	5	6	6	5	4	1	0	(1)	(1)	
2200-0355.000 Total	4,289	3,829	3,762	3,931	3,634	(460)	(67)	169	(297)	Page 191 of 209
Variance Explanation						Variance Amount				
2011-12										
Labor										
This Labor increase is primarily driven by employee turnover and retro pay for a salary increase.								158		
NLbr										
This Non-Labor increase is negligible								12		
								170		
2012-13										
Labor										
This Labor decrease is primarily driven by lower employee turnover that required less overtime to complete the workload.									(317)	
NLbr										
This Non-Labor increase is negligible									21	
									(296)	

Note: Totals may include rounding differences.

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Question B.1

Exh No:SCG-11-WP										
Witness Name	Evan D. Goldman									
2013\$ in Thousands										
	Adjusted Recorded					Variances by Year				Workpaper Page
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13	
<b>2200-2240 Senior Vice President of Customer Service, Innovation and Business Strategy</b>										
Labor	\$0	\$0	\$0	\$145	\$401	\$0	\$0	\$145	\$256	
NLbr	\$0	\$0	\$0	\$16	\$51	\$0	\$0	\$16	\$35	
NSE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total	\$0	\$0	\$0	\$161	\$452	\$0	\$0	\$161	\$291	Page 116 of 209
<b>Variance Explanation</b>						<b>Variance Amount</b>				
2009-10										
Labor										
NLbr										
2010-11										
Labor										

Note: Totals may include rounding differences.

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 Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>2200-2240 Senior Vice President of Customer Service, Innovation and Business Strategy</b>											
Labor	\$0	\$0	\$0	\$145	\$401	\$0	\$0	\$145	\$256		
NLbr	\$0	\$0	\$0	\$16	\$51	\$0	\$0	\$16	\$35		
NSE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
Total	\$0	\$0	\$0	\$161	\$452	\$0	\$0	\$161	\$291	Page 116 of 209	
<b>Variance Explanation</b>						<b>Variance Amount</b>					
NLbr											
	2011-12										
Labor											
This Labor increase was the result the creation of a SVP of Customer Service, Innovation and Business Strategy as a part of a company reorganization in August of 2012.											
								145			
NLbr											
This Non-Labor increase was the result the creation of a SVP of Customer Service, Innovation and Business Strategy as a part of a company reorganization in August of 2012.											
								16			
								161			
	2012-13										
Labor											
This Labor increase represents a full year of labor for the SVP positon and administrative charges.											

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Question B.1

Exh No:SCG-11-WP											
Witness Name	Evan D. Goldman										
2013\$ in Thousands											
	Adjusted Recorded					Variances by Year				Workpaper Page	
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13		
<b>2200-2240 Senior Vice President of Customer Service, Innovation and Business Strategy</b>											
Labor	\$0	\$0	\$0	\$145	\$401	\$0	\$0	\$145	\$256		
NLbr	\$0	\$0	\$0	\$16	\$51	\$0	\$0	\$16	\$35		
NSE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
Total	\$0	\$0	\$0	\$161	\$452	\$0	\$0	\$161	\$291	Page 116 of 209	
<b>Variance Explanation</b>						<b>Variance Amount</b>					
NLbr									256		
This Non-Labor charge represents a full year of employee related charges for the SVP position.											
									35		
									291		

Note: Totals may include rounding differences.

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Exh No:SCG-11-WP			SCG-ORA-DEF-004-TLG									
Witness Name	Evan D. Goldman					Question B.1						
2013\$ in Thousands												
	Adjusted Recorded					Variances by Year				Workpaper Page		
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13			
<b>2200-2247 - Manager of Remittance Processing</b>												
Labor	447	443	431	436	428	(4)	(12)	5	(8)			
NLbr	1	2	2	3	-	1	0	1	(3)			
NSE						0	0	0	0			
2200-2247.000 Total	448	445	433	439	428	(3)	(12)	6	(11)	Page 183 of 209		
<b>Variance Explanation</b>						<b>Variance Amount</b>						
2009-10												
Labor												
This Labor decrease is negligible												
						(4)						
NLbr												
This Non-Labor increase is negligible												
						1						
						(3)						
2010-11												
Labor												
This Labor decrease is negligible												
							(12)					
NLbr												
							-					
							(12)					
2011-12												
Labor												
This Labor increase is negligible												
								5				

Note: Totals may include rounding differences.

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Exh No:SCG-11-WP			SCG-ORA-DEF-004-TLG									
Witness Name	Evan D. Goldman					Question B.1						
2013\$ in Thousands												
	Adjusted Recorded					Variances by Year				Workpaper Page		
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13			
<b>2200-2247 - Manager of Remittance Processing</b>												
Labor	447	443	431	436	428	(4)	(12)	5	(8)			
NLbr	1	2	2	3	-	1	0	1	(3)			
NSE						0	0	0	0			
2200-2247.000 Total	448	445	433	439	428	(3)	(12)	6	(11)	Page 183 of 209		
<b>Variance Explanation</b>						<b>Variance Amount</b>						
NLbr												
This Non-Labor increase is negligible												
								1				
								6				
	2012-13											
Labor												
This Labor decrease is negligible												
									(8)			
NLbr												
This Non-Labor decrease is negligible												
									(3)			
									(11)			

Note: Totals may include rounding differences.

Testimony				Testimony Page #	Workpaper Group	Workpaper Page #	Forecast Methodology	Work Group Name	Cost Driver	Total (\$000)	Labor (\$000)	Non-Labor (\$000)	NSE	FTE	Notes
II	B	3	a	15	200000.000	9, 17, 18		CCC Operations	Meter growth	\$498	\$498	\$0	\$0	7.9	The call volume calculation is shown on pg. 17 of 305 and the labor dollars associated with the call volume are shown on pg. 18 of 305.
II	B	3	b	15	200000.000	10, 17, 18		CCC Operations	Self-service adoption	(\$1,224)	(\$1,224)	\$0	\$0	(19.5)	The call volume calculation is shown on pg. 17 of 305 and the labor dollars associated with the call volume are shown on pg. 18 of 305.
II	B	3	c	15-17	200000.000	10, 18, 21		CCC Operations	Increase CSR LOS	\$1,579	\$1,579	\$0	\$0	25.0	\$1,507K (pg. 10 of 305) for CSRs and \$72K (pg. 12 of 305) for Supervisor. SWP 3 shows Labor dollars only and needs to be combined with 2013 Base Year NL of \$348K and \$45K (pg. 12 of 305) NL for additional FTEs in 2016 to equal the full request. The Non-Labor incremental increase is explained in Section II.B.3.h. in testimony.
II	B	3	d	17	200000.000	11, 17, 18		CCC Operations	Increase in calls due to DOT - Required MSA Inspection Program	\$791	\$791	\$0	\$0	12.6	The call volume calculation is shown on pg. 17 of 305 and the labor dollars associated with the call volume are shown on pg. 18 of 305.
II	B	3	e	17	200000.000	11, 17-19		CCC Operations	Customer outreach safety checks	\$169	\$169	\$0	\$0	2.7	The call volume calculation is shown on pg. 17 of 305 and the labor dollars associated with the call volume are shown on pg. 18 of 305. (pg. 19 of 305) shows details on how call forecast was derived
II	B	3	e	17	200000.000	10-11		CCC Operations	Expanded appliance safety checks	\$47	\$47	\$0	\$0	0.8	
II	B	3	f	18-20	200000.000	10-12		CCC Operations	Other AHT changes	\$441	\$441	\$0	\$0	7.1	Combines AHT adjustments of \$122K (pg. 10 of 305) for capturing customer contact preferences, \$94K (pg. 10 of 305) to offer renters services, \$188K (pg. 10 of 152) for My Account sign up, \$75K (pg. 11 of 305) for reducing the number of close orders handled by CSRs, and (\$38K) (pg. 12 of 305) for reduction in AHT due to IVR close order efficiency gain
II	B	3	g	21	200000.000	11		CCC Operations	Adjustments for full year staffing	\$96	\$96	\$0	\$0	1.5	Combines \$72K (pg. 11 of 305) adjustment for 2 supervisors staffed for part of the year and \$24K (pg. 11 of 305) for and Administrative position staffed for part of the year
II	B	3	h	21	200000.000	12		CCC Operations	Incremental non-labor due to growth in FTE count	\$45	\$0	\$45	\$0	0.0	The non-labor adjustment was based on the total reimbursable expenses (including mileage and travel) and materials (office supplies & equipment), and divided by the number of FTEs in CCC Operations in 2013. The average Non-Labor per FTE was then multiplied by the FTE increases projected for 2016.
II	B	3	i	21-22	200000.000	12, 23		CCC Operations	CSRs enroll customers in CARE	\$1,259	\$1,259	\$0	\$0	19.9	\$1,187K (pg. 12 of 305) for CSRs and \$72K (pg. 12 of 305) for Supervisor
						Testimony pg. 12 and Workpaper pg. 6		Sub-Total		\$3,701	\$3,656	\$45	\$0	58.0	
II	C	3	a	24-25	200001.000	29		CCC Support	Expand IVR support staff due to increased IVR utilization	\$189	\$186	\$3	\$0	2.0	The non-labor adjustment was based on the total reimbursable expenses (including mileage and travel) and materials (office supplies & equipment), and divided by the number of FTEs in CCC Support in 2013. The average Non-Labor per FTE was then multiplied by the IVR FTE increases projected for 2016.

Testimony	Testimony Page #	Workpaper Group	Workpaper Page #	Forecast Methodology	Work Group Name	Cost Driver	Total (\$000)	Labor (\$000)	Non-Labor (\$000)	NSE	FTE	Notes
II C 3 b	26-27	200001.000	29, 45		CCC Support	Expansion of the Special Investigations Team	\$569	\$560	\$9	\$0	7.0	(pg. 45 of 305) Shows how FTEs were calculated. The forecast adjustment shows the Labor calculation (pg. 29 of 305). The non-labor adjustment was based on the total reimbursable expenses (including mileage and travel) and materials (office supplies & equipment), and divided by the number of FTEs in CCC Support in 2013. The average Non-Labor per FTE was then multiplied by the Special Investigations Team FTE increases projected for 2016.
II C 3 c	27	200001.000	29, 46		CCC Support	Add online web chat capability	\$185	\$0	\$185	\$0	0.0	
II C 3 d	27-28	200001.000	29		CCC Support	Increase Quality Assurance support	\$301	\$296	\$5	\$0	4.0	The non-labor adjustment was based on the total reimbursable expenses (including mileage and travel) and materials (office supplies & equipment), and divided by the number of FTEs in CCC Support in 2013. The average Non-Labor per FTE was then multiplied by the Quality Assurance FTE increases projected for 2016.
II C 3 e	28-29	200001.000	29-30		CCC Support	Adjustments for full year staffing to Customer Experience Team	\$107	\$106	\$1	\$0	1.1	The non-labor adjustment was based on the total reimbursable expenses (including mileage and travel) and materials (office supplies & equipment), and divided by the number of FTEs in CCC Support in 2013. The average Non-Labor per FTE was then multiplied by the Customer Experience Team FTE increases projected for 2016.
II C 3 f	29	200001.000	30		CCC Support	Incremental software maintenance and hosting fees	\$35	\$0	\$35	\$0	0.0	
II C 3 g	30	200001.000	44, 47		CCC Support	Increase in telecommunications costs	\$22	\$0	\$22	\$0	0.0	
II C 3 h	30	200001.000	30, 48		CCC Support	Process efficiency reductions due to automating OBD	(\$245)	(\$240)	(\$5)	\$0	(3.6)	The non-labor adjustment was based on the total reimbursable expenses (including mileage and travel) and materials (office supplies & equipment), and divided by the number of FTEs in CCC Support in 2013. The average Non-Labor per FTE was then multiplied by the OBD FTE decreases projected for 2016.
II C 3 -	N/A	200001.000	30, 47		CCC Support	Telecommunications costs supporting CARE	\$28	\$0	\$28	\$0	0.0	Addressed in Table 15 of testimony and calculated in detail on (pg. 47 of 305)
				Testimony pg. 23 and workpaper pg. 25	Sub-Total		\$1,191	\$908	\$283	\$0	10.5	Testimony Table 15 shows 11.5 FTEs in support, but the total should be 10.5. The non-labor total shows \$255, but should be \$283. The individual labor, non-labor and FTE adjustments are all correct.
II E 3 a	34	200003.000	57, 62		Billing	Meter growth	\$108	\$108	\$0	\$0	1.4	
II E 3 b	34-35	200003.000	57, 63		Billing	Mass Market Billing Exception Backlog Reduction	\$116	\$116	\$0	\$0	1.5	
II E 3 c	35	200003.000	57		Billing	Adjustments for Full Year Staffing in Major Market Billing	\$86	\$86	\$0	\$0	1.1	

Testimony	Testimony Page #	Workpaper Group	Workpaper Page #	Forecast Methodology	Work Group Name	Cost Driver	Total (\$000)	Labor (\$000)	Non-Labor (\$000)	NSE	FTE	Notes
				Testimony pg. 33 and workpaper pg. 55	Sub-Total		\$310	\$310	\$0	\$0	4.0	
II	F 3 a	36	20O007.000	115, 119	MDO	Meter growth	\$5	\$0	\$5	\$0	0.0	
				Testimony pg. 36 and workpaper pg. 114	Sub-Total		\$5	\$0	\$5	\$0	0.0	
II	G 3 a	38	20O004.000	67	Credit and Collections	Adjustments for full year staffing in Credit and Collections	\$117	\$117	\$0	\$0	1.6	Combines \$92K (pg. 67 of 305) adjustment for partial year salaries of 3 Collections Clerks with a \$25K (pg. 67 of 305) adjustment for partial year staffing of a Project Specialist
II	G 3 b	38-39	20O004.000	67-68, 74	Credit and Collections	Adjustments in support of Collections Optimization Phases 2 and 3	\$198	\$0	\$198	\$0	0.0	\$34K for vendor fees for outbound dialing calls, \$156K for software costs, and \$8K in vendor fees for challenge questions
				Testimony pg. 37-38 and workpaper pg. 65	Sub-Total		\$315	\$117	\$198	\$0	1.6	
II	H 3 a	40	20O004.001	77-78, 83	Credit and Collections Postage	Reduction of Postage Expense due to Capital Projects	(\$591)	\$0	\$0	(\$591)	0.0	
				Testimony pg. 39 and workpaper pg. 76	Sub-Total		(\$591)	\$0	\$0	(\$591)	0.0	
II	I 3 a	41	20O005.000	86, 91	Remittance Processing	Savings from paperless adoption	(\$181)	\$0	(\$181)	\$0	0.0	
II	I 3 b	42	20O005.000	86, 91	Remittance Processing	Increased vendor fees for e-bills delivered	\$150	\$0	\$150	\$0	0.0	
				Testimony pg. 41 and workpaper pg. 85	Sub-Total		(\$31)	\$0	(\$31)	\$0	0.0	

Testimony				Testimony Page #	Workpaper Group	Workpaper Page #	Forecast Methodology	Work Group Name	Cost Driver	Total (\$000)	Labor (\$000)	Non-Labor (\$000)	NSE	FTE	Notes
II	J	3	a	43	200005.001	95, 100		Remittance Processing Postage	Meter growth	\$412	\$0	\$0	\$412	0.0	
II	J	3	b	43	200005.001	95, 100		Remittance Processing Postage	USPS Postage Rate Increase	\$1,444	\$0	\$0	\$1,444	0.0	
II	J	3	c	43-44	200005.001	95, 100		Remittance Processing Postage	Paperless Adoption	(\$2,726)	\$0	\$0	(\$2,726)	0.0	Combines reductions of \$2,197K (pg. 95 of 305) in paperless adoption and \$529K (pg. 95 of 305) in savings from avoiding the postage increase
							Testimony pg. 42 and workpaper pg. 93	Sub-Total		(\$870)	\$0	\$0	(\$870)	0.0	
II	K	3	a	46	200006.000	105		Customer Service Other Office Operations and Technology	Summer internship program	\$55	\$55	\$0	\$0	1.3	
II	K	3	b	46-50	200006.000	105-106		Customer Service Other Office Operations and Technology	Customer Data Privacy for "SoCalGas"	\$507	\$360	\$147	\$0	4.0	Combines \$360K in labor, \$147K in NL (includes 1/3 cost of \$350K audit). Non-Labor estimates based on vendor quotes and professional estimates.
II	K	3	c	50	200006.000	106		Customer Service Other Office Operations and Technology	Increased support for mobile customer applications	\$114	\$114	\$0	\$0	1.5	Labor rate of 76K per FTE is a professional estimate in the lower half of the pay band for this job classification.
II	K	3	d	50	200006.000	106		Customer Service Other Office Operations and Technology	Increased data analytics support	\$186	\$186	\$0	\$0	2.0	
II	K	3	e	50-51	200006.000	106		Customer Service Other Office Operations and Technology	Increased customer technology program management	\$309	\$300	\$9	\$0	3.0	This non-labor total is a professional estimate for supplies, materials, travel, and reimbursements for the group.
							Testimony pg. 46 and workpaper pg. 102	Sub-Total		\$1,171	\$1,015	\$156	\$0	11.8	
<b>Total Non-Shared Services</b>										<b>\$5,201</b>	<b>\$6,006</b>	<b>\$656</b>	<b>(\$1,461)</b>	<b>85.9</b>	
III	B	3	a	54	2200-0354	126	Testimony pg. 54 and workpaper pg. 123	Major Market Credit and Collections	Adjustments for Full Year Staffing for Major Market Credit and Collections	\$30	\$30	\$0	\$0	0.3	
<b>Total Shared Services</b>										<b>\$30</b>	<b>\$30</b>	<b>\$0</b>	<b>\$0</b>	<b>0.3</b>	
<b>Total NSS + USS</b>										<b>\$5,231</b>	<b>\$6,036</b>	<b>\$656</b>	<b>(\$1,461)</b>	<b>86.2</b>	

Southern California Gas Company  
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Area: CS - OFFICE OPERATIONS  
Witness: Evan D. Goldman

**Appendix A: List of Non-Shared Cost Centers**

<b>Cost Center</b>	<b>Sub</b>	<b>Description</b>
2200-0018	000	CS-CUST OPS LVC for Budget Use Only
2200-0164	000	OUTBOUND DIALING & CUST CORR (SCG)
2200-0165	000	CCC PLANNING & ANALYSIS (SCG)
2200-0226	000	SOCAL GAS CUSTOMER OPERATIONS DIRECTOR
2200-0227	000	MAJOR MARKETS BILLING-NORTH
2200-0228	000	SCG MEASUREMENT DATA OPERATIONS MANAGER
2200-0331	000	BUS PLANNING CLIENT SUPPORT
2200-0340	000	SCG CREDIT & COLLECTIONS - ADJ
2200-0341	000	CUSTOMER SERVICE STAFF DIRECTOR
2200-0344	000	CS TRAINING & DEVELOPMENT MANAGER
2200-0347	000	UNCOLLECTIBLES - CORE
2200-0348	000	CUSTOMER BILLING SERVICES
2200-0349	000	SPECIAL BILLING C&I
2200-0350	000	SOCALGAS CREDIT & COLLECTIONS MGR
2200-0351	000	MASS MARKET CREDIT & COLLECTION SERVICES
2200-0352	000	MASS MARKET CREDIT & COLLECTION PROJECTS
2200-0401	000	CUSTOMER CONTACT CENTER DIRECTOR
2200-0403	000	LOS MANAGEMENT (LOS)
2200-0404	000	CCC TECHNOLOGY
2200-0405	000	BRANCH OFC AREA 7
2200-0406	000	COMMERCIAL & INDUSTRIAL
2200-0407	000	CCC SITE MANAGER SAN DIMAS
2200-0408	000	HIGH BILL INVESTIGATION
2200-0409	000	RESIDENTIAL MARKETING
2200-0410	000	SPECIAL INVESTIGATIONS
2200-0411	000	CCC SITE MANAGER REDLANDS
2200-0412	000	CENTRALIZED SET DESKS
2200-0414	000	AUTHORIZED PYMNT AGENCIES
2200-0415	000	BRANCH OFC AREA 8
2200-0416	000	BRANCH OFC AREA 1
2200-0417	000	BRANCH OFC AREA 2
2200-0418	000	BRANCH OFC AREA 3
2200-0419	000	BRANCH OFC AREA 4
2200-0420	000	BRANCH OFC AREA 5
2200-0421	000	BRANCH OFC AREA 6
2200-0678	000	DATA DISTRIBUTION
2200-1214	000	CCC SPECIAL SERVICES MANAGER
2200-1341	000	CARE PORTION OF DATA DISTRIBUTION
2200-1370	000	QUALITY ASSURANCE (SCG)
2200-1371	000	CUSTOMER CONTACT MULTILINGUAL SUPPORT
2200-1372	000	CCC OPS SUPPORT (SCG)
2200-2026	000	BILL PRESENTMENT & PAYMENT CHANNEL
2200-2027	000	CUSTOMER OPERATIONS TECHNOLOGY MANAGER
2200-2028	000	MGR CUSTOMER OPERATIONS SUPPORT
2200-2050	000	BRANCH OFFICE OPERATIONS MGR - SCG

SCG/CS - OFFICE OPERATIONS /Exh No:SCG-11-WP/Witness: E. Goldman

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Area: CS - OFFICE OPERATIONS  
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**Appendix A: List of Non-Shared Cost Centers**

<b>Cost Center</b>	<b>Sub</b>	<b>Description</b>
2200-2054	000	UNCOLLECTIBLES - NONCORE
2200-2088	000	AUTHORIZED PAYMENT LOCATIONS -SCG
2200-2094	000	CUSTOMER OPERATIONS VP
2200-2099	000	CCC OPERATIONS SUPPORT REFUNDABLE
2200-2140	000	CUSTOMER SERVICES SVP & STAFF
2200-2154	000	CCC RESOURCE AND SERVICE LEVEL MANAGER
2200-2156	000	CCC OPERATIONS SUPPORT MANAGER
2200-2196	000	BRANCH OFC REGIONAL SUPERVISOR 2
2200-2199	000	REMITTANCE PROCESSING SUPPORT
2200-2239	000	DATA DISTRIBUTION LETTERS
2200-2306	000	CUST OPS TECH PROJECT MANAGER – SCG
2200-2330	000	MANAGER OF REMITTANCE PROCESSING SCG
2200-2408	000	CUSTOMER EXPERIENCE
2200-2474	000	CUST OPS STRATEGY & ANALYSIS MANAGER