

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-13-WP)

WORKPAPERS TO  
PREPARED DIRECT TESTIMONY  
OF JEFFREY G. REED  
ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA

NOVEMBER 2014



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

**Exhibit SCG-13-WP - CS - TECHNOLOGIES, POLICIES & SOLUTIONS**

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**Overall Summary For Exhibit No. SCG-13-WP**

<b>Area:</b>	<b>CS - TECHNOLOGIES, POLICIES &amp; SOLUTIONS</b>
<b>Witness:</b>	<b>Jeffrey G. Reed</b>

Description	In 2013 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
<b>Non-Shared Services</b>	8,080	10,800	10,800	12,715
<b>Shared Services</b>	4,986	6,403	7,506	8,142
<b>Total</b>	<b>13,066</b>	<b>17,203</b>	<b>18,306</b>	<b>20,857</b>

*Note: Totals may include rounding differences.*

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

Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed

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

Description	In 2013 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
A. R-RD&D CS Technology Development	8,080	10,800	10,800	12,715
<b>Total</b>	<b>8,080</b>	<b>10,800</b>	<b>10,800</b>	<b>12,715</b>

*Note: Totals may include rounding differences.*

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

Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
Witness: Jeffrey G. Reed  
Category: A. R-RD&D CS Technology Development  
Workpaper: 2RD001.001

**Summary for Category: A. R-RD&D CS Technology Development**

	In 2013\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	1,135	1,575	1,575	1,575
Non-Labor	6,946	9,225	9,225	11,140
NSE	0	0	0	0
<b>Total</b>	<b>8,081</b>	<b>10,800</b>	<b>10,800</b>	<b>12,715</b>
FTE	10.7	15.1	15.1	15.1

**Workpapers belonging to this Category:**

**2RD001.001 R-RD&D CS TECHNOLOGY DEVELOPMENT**

Labor	1,135	1,575	1,575	1,575
Non-Labor	6,946	9,225	9,225	11,140
NSE	0	0	0	0
<b>Total</b>	<b>8,081</b>	<b>10,800</b>	<b>10,800</b>	<b>12,715</b>
FTE	10.7	15.1	15.1	15.1

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2RD001.001 - R-RD&D CS TECHNOLOGY DEVELOPMENT**

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

Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
Witness: Jeffrey G. Reed  
Category: A. R-RD&D CS Technology Development  
Category-Sub: 1. R-RD&D CS Technology Development  
Workpaper: 2RD001.001 - R-RD&D CS TECHNOLOGY DEVELOPMENT

**Activity Description:**

The Research Development & Demonstration (RD&D) organization is focused on identifying, assessing, developing, demonstrating and deploying emerging new technologies of significant potential value to customers and utility operations. The RD&D program budget is tracked in a one way balancing account treatment. SoCalGas will propose in its next GRC proceeding to return the unspent funds in rates to customers. Overspent funds may not be recovered from ratepayers and shareholders will absorb the balance in the event actual expenses exceed authorized levels.

**Forecast Explanations:**

**Labor - Zero-Based**

The RD&D Program staffing requirements and related costs were forecast using a zero-based methodology. A technology needs analysis was performed to determine activity levels needed in the various RD&D areas employing historical project activity and labor costs to determine staffing and costs necessary for the project and technology assessment activity planned for the forecast period. BY 2013 staffing was 10.7 FTE. During the forecast period, additional project activity is planned in the areas of operations technology to support safety and reliability, low-emission transportation and renewable natural gas / low-carbon resources. The RD&D program budget forecasts a net increase of 4.4 FTEs in TY 2016 relative to BY 2013. The increase reflects the addition of 1.5 FTE in the operations area to focus on gas quality analysis and testing for various new renewable natural gas and hydrogen resources and increased participation in industry and research collaborative committee meetings and events. The remaining 2.9 FTE increment is composed of one staff member added in early 2014 to focus on renewable natural gas and low-carbon resources, one staff member addition to focus on low-emission transportation solutions and 0.9 FTE related to full-year staffing of a vacancy due to a 2013 retirement and additional part-time hours charged to the program for commercial support (budgets, contracts and transactions).

**Non-Labor - Zero-Based**

Non-labor, which is predominantly RD&D project expense, was forecast on a zero-based method using a technology needs assessment to develop planned project activity as described in direct testimony and using historical averages to estimate projects costs. This approach allows for evolving RD&D needs based on technology progress, changes in public policies and goals, and changes in customer needs. The present budget forecast reflects increased activity in the operations area as well as a number of areas related to criteria pollutions reduction and carbon reduction.

**NSE - Zero-Based**

Not applicable.

*Note: Totals may include rounding differences.*

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

Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: A. R-RD&D CS Technology Development  
 Category-Sub: 1. R-RD&D CS Technology Development  
 Workpaper: 2RD001.001 - R-RD&D CS TECHNOLOGY DEVELOPMENT

**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		1,182	1,400	1,357	1,446	1,135	1,575	1,575	1,575	
Non-Labor		8,990	11,264	11,288	6,919	6,946	9,225	9,225	11,140	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>10,171</b>	<b>12,664</b>	<b>12,645</b>	<b>8,365</b>	<b>8,080</b>	<b>10,800</b>	<b>10,800</b>	<b>12,715</b>	
FTE		10.8	13.2	13.0	13.7	10.7	15.1	15.1	15.1	

*Note: Totals may include rounding differences.*

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

Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: A. R-RD&D CS Technology Development  
 Category-Sub: 1. R-RD&D CS Technology Development  
 Workpaper: 2RD001.001 - R-RD&D CS TECHNOLOGY DEVELOPMENT

**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	Zero-Based	0	0	0	1,575	1,575	1,575	1,575	1,575	1,575
Non-Labor	Zero-Based	0	0	0	9,225	9,225	11,140	9,225	9,225	11,140
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>10,800</b>	<b>10,800</b>	<b>12,715</b>	<b>10,800</b>	<b>10,800</b>	<b>12,715</b>
FTE	Zero-Based	0.0	0.0	0.0	15.1	15.1	15.1	15.1	15.1	15.1

**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	1,575	9,225	0	10,800	15.1	1-Sided Adj

Based on the RD&D authorized 4 years (2012-2015) cycle expenses.

<b>2014 Total</b>	<b>1,575</b>	<b>9,225</b>	<b>0</b>	<b>10,800</b>	<b>15.1</b>	
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2015	1,575	9,225	0	10,800	15.1	1-Sided Adj
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Based on the RD&D authorized 4 years (2012-2015) cycle expenses.

<b>2015 Total</b>	<b>1,575</b>	<b>9,225</b>	<b>0</b>	<b>10,800</b>	<b>15.1</b>	
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2016	1,575	11,140	0	12,715	15.1	1-Sided Adj
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Proposed funding for the TY 2016 GRC cycle for labor and non-labor is \$12.7 million. Refer to testimony for a breakdown of the RD&D forecast by program.

<b>2016 Total</b>	<b>1,575</b>	<b>11,140</b>	<b>0</b>	<b>12,715</b>	<b>15.1</b>	
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*Note: Totals may include rounding differences.*

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

Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: A. R-RD&D CS Technology Development  
 Category-Sub: 1. R-RD&D CS Technology Development  
 Workpaper: 2RD001.001 - R-RD&D CS TECHNOLOGY DEVELOPMENT

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	908	1,026	992	1,101	967
Non-Labor	6,114	10,381	10,822	6,756	6,919
NSE	0	0	0	0	0
<b>Total</b>	<b>7,022</b>	<b>11,407</b>	<b>11,813</b>	<b>7,857</b>	<b>7,886</b>
FTE	9.1	10.5	10.2	10.9	9.1
<b>Adjustments (Nominal \$) **</b>					
Labor	0	83	120	117	6
Non-Labor	2,000	42	34	44	26
NSE	0	0	0	0	0
<b>Total</b>	<b>2,000</b>	<b>125</b>	<b>154</b>	<b>160</b>	<b>32</b>
FTE	0.0	0.7	0.9	0.9	0.1
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	908	1,109	1,111	1,217	973
Non-Labor	8,114	10,423	10,856	6,799	6,946
NSE	0	0	0	0	0
<b>Total</b>	<b>9,022</b>	<b>11,532</b>	<b>11,967</b>	<b>8,017</b>	<b>7,919</b>
FTE	9.1	11.2	11.1	11.8	9.2
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	164	194	185	195	162
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>164</b>	<b>194</b>	<b>185</b>	<b>195</b>	<b>162</b>
FTE	1.7	2.0	1.9	2.0	1.5
<b>Escalation to 2013\$</b>					
Labor	110	97	61	34	0
Non-Labor	876	841	432	120	0
NSE	0	0	0	0	0
<b>Total</b>	<b>985</b>	<b>938</b>	<b>494</b>	<b>154</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	1,182	1,400	1,357	1,446	1,135
Non-Labor	8,990	11,264	11,288	6,919	6,946
NSE	0	0	0	0	0
<b>Total</b>	<b>10,171</b>	<b>12,664</b>	<b>12,645</b>	<b>8,365</b>	<b>8,080</b>
FTE	10.8	13.2	13.0	13.8	10.7

\* 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 - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: A. R-RD&D CS Technology Development  
 Category-Sub: 1. R-RD&D CS Technology Development  
 Workpaper: 2RD001.001 - R-RD&D CS TECHNOLOGY DEVELOPMENT

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	83	120	117	6
Non-Labor	2,000	42	34	44	26
NSE	0	0	0	0	0
<b>Total</b>	<b>2,000</b>	<b>125</b>	<b>154</b>	<b>160</b>	<b>32</b>
FTE	0.0	0.7	0.9	0.9	0.1

**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	2,000	0	0.0	1-Sided Adj	N/A	TPGMG20140616 092408890

Adjustment to reverse royalty revenue credits received from 'Direct Drive System' Sales. This royalty revenue is distributed back to the ratepayers via regulatory update filing and should not be included in the GRC.

<b>2009 Total</b>	<b>0</b>	<b>2,000</b>	<b>0</b>	<b>0.0</b>			
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2010	83	42	0	0.7	CCTR Transf	From 2200-2059.000	EPANAMEN2013 1125094343240
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Transferring from 2200-2059.000 to 2200-2059.001. Transfer labor, FTE and non-labor costs associated with SoCalGas RD&D Project Manager function from cost center 2100-4018 in work group 100011 Customer Programs & Projects to SoCalGas cost center 2200-2059 in work group 2RD001 SoCalGas CS. Technologies RD&D to align costs where function resides and will be forecast. Reference internal orders: 7025532 , 7043704.

2010	0	0.245	0	0.0	CCTR Transf	From 2200-2059.000	EPANAMEN2013 1125094730663
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Transferring from 2200-2059.000 to 2200-2059.001. Transfer non-labor costs associated with SoCalGas Research Development & Demonstration Projects from SDG&E USS cost center 2100-3434 Planning & Development Director to SoCalGas cost center 2200-2059 in work group 2RD001 SoCalGas CS - Technologies RD&D to align costs where function resides and will be forecast. Reference internal orders: 7025532 .

<b>2010 Total</b>	<b>83</b>	<b>42</b>	<b>0</b>	<b>0.7</b>			
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Note: Totals may include rounding differences.

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

Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: A. R-RD&D CS Technology Development  
 Category-Sub: 1. R-RD&D CS Technology Development  
 Workpaper: 2RD001.001 - R-RD&D CS TECHNOLOGY DEVELOPMENT

<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	120	19	0	0.9	CCTR Transf	From 2200-2059.000	EPANAMEN2013 1125095022957
<p>Transferring from 2200-2059.000 to 2200-2059.001. Transfer labor, FTE and non-labor costs associated with SoCalGas RD&amp;D Project Manager function from cost center 2100-4018 in work group 10O011 Customer Programs &amp; Projects to SoCalGas cost center 2200-2059 in work group 2RD001 SoCalGas CS. Technologies RD&amp;D to align costs where function resides and will be forecast. Reference internal orders: 7025532 , 7043704.</p>							
2011	0	15	0	0.0	CCTR Transf	From 2200-2059.000	EPANAMEN2013 1125095545193
<p>Transferring from 2200-2059.000 to 2200-2059.001. Transfer non-labor costs associated with SoCalGas RD&amp;D Projects from SDG&amp;E USS cost center 2100-3434 Planning &amp; Development Director to SoCalGas cost center 2200-2059 in work group 2RD001 SoCalGas CS-Technologies RD&amp;D to align costs where function resides and will be forecast. Reference internal order: 7023552.</p>							
<b>2011 Total</b>	<b>120</b>	<b>34</b>	<b>0</b>	<b>0.9</b>			

2012	117	21	0	0.9	CCTR Transf	From 2200-2059.000	EPANAMEN2013 1125095807143
<p>Transferring from 2200-2059.000 to 2200-2059.001. Transfer labor, FTE and non-labor costs associated with SoCalGas RD&amp;D Project Manager function from cost center 2100-4018 in work group 10O011 Customer Programs &amp; Projects to SoCalGas cost center 2200-2059 in work group 2RD001 SoCalGas CS. Technologies RD&amp;D to align costs where function resides and will be forecasted. Reference internal orders: 7025532 , 7043704.</p>							
2012	0	23	0	0.0	CCTR Transf	From 2200-2059.000	EPANAMEN2013 1125095918227
<p>Transferring from 2200-2059.000 to 2200-2059.001. Transfer non-labor costs associated with SoCalGas RD&amp;D Projects from SDG&amp;E USS cost center 2100-3434 Planning &amp; Development Director to SoCalGas cost center 2200-2059 in work group 2RD001 SoCalGas CS-Technologies RD&amp;D to align costs where function resides and will be forecasted. Reference internal order: 7023552.</p>							
<b>2012 Total</b>	<b>117</b>	<b>44</b>	<b>0</b>	<b>0.9</b>			

2013	6	12	0	0.1	CCTR Transf	From 2100-4018.000	CSCHRAMM2014 0212111921920
<p>Transfer labor FTE and non-labor costs associated with SoCalGas RD&amp;D Project Manager function from cost center 2100-4018 in work group 10O011 Customer Programs &amp; Projects to SoCalGas cost center 2200-2059.001 in work group 2RD001.001 SoCalGas CS - Technologies RD&amp;D Refundable to align costs where function resides. Reference internal orders: 7025532, 7043704</p>							

Note: Totals may include rounding differences.

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

Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: A. R-RD&D CS Technology Development  
 Category-Sub: 1. R-RD&D CS Technology Development  
 Workpaper: 2RD001.001 - R-RD&D CS TECHNOLOGY DEVELOPMENT

<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	14	0	0.0	CCTR Transf	From 2100-3434.000	CSCHRAMM2014 0212112041200

Transfer non-labor costs associated with SoCalGas RD&D Refundable Program from shared service cost center 2100-3434.000 SoCalGas cost center 2200-2059.001 in work group 2RD001.001 SoCalGas CS - Technologies RD&D Refundable to align costs where function resides. Reference internal order: 7025532

<b>2013 Total</b>	<b>6</b>	<b>26</b>	<b>0</b>	<b>0.1</b>			
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*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
Witness: Jeffrey G. Reed

**Summary of Shared Services Workpapers:**

Description	In 2013 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
A. Policy and Environmental Solutions	2,344	3,002	3,696	4,005
B. Natural Gas Vehicle Program	1,432	1,693	1,944	2,271
C. Biofuels and Low-Carbon Resources Market Dev	226	520	665	665
D. Business Strategy and Development	984	1,188	1,201	1,201
<b>Total</b>	<b>4,986</b>	<b>6,403</b>	<b>7,506</b>	<b>8,142</b>

*Note: Totals may include rounding differences.*

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: A. Policy and Environmental Solutions  
 Cost Center: VARIOUS

**Summary for Category: A. Policy and Environmental Solutions**

	In 2013\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	937	1,517	1,861	1,940
Non-Labor	1,408	1,486	1,836	2,066
NSE	0	0	0	0
<b>Total</b>	<b>2,345</b>	<b>3,003</b>	<b>3,697</b>	<b>4,006</b>
FTE	7.8	13.2	16.5	17.0

**Cost Centers belonging to this Category:**

**2200-2288.000 ENVIRONMENTAL AFFAIRS**

Labor	530	637	637	637
Non-Labor	41	119	119	199
NSE	0	0	0	0
<b>Total</b>	<b>571</b>	<b>756</b>	<b>756</b>	<b>836</b>
FTE	4.1	5.0	5.0	5.0

**2200-2396.000 POLICY AND ENVIRONMENTAL SOLUTIONS**

Labor	407	880	1,224	1,303
Non-Labor	1,367	1,367	1,717	1,867
NSE	0	0	0	0
<b>Total</b>	<b>1,774</b>	<b>2,247</b>	<b>2,941</b>	<b>3,170</b>
FTE	3.7	8.2	11.5	12.0

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2200-2288.000 - ENVIRONMENTAL AFFAIRS**

Southern California Gas Company  
2016 GRC - APP  
Shared Services Workpapers

Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: A. Policy and Environmental Solutions  
 Category-Sub: 1. Policy and Environmental Solutions  
 Cost Center: 2200-2288.000 - ENVIRONMENTAL AFFAIRS

**Activity Description:**

This cost center provides services of environmental program managers that monitor and analyze issues to identify air quality regulatory and compliance impacts on SoCalGas and SDG&E customers and on utility operations. The group works directly with air agency staff and with customers on rulemaking and compliance matters.

**Forecast Explanations:**

**Labor - Base YR Rec**

A base year forecast method is used for this cost category with a mid-year 2013 staff addition reflected in the forecast on a full-year basis. This method is most appropriate because it accurately reflects the activity levels required in the forecast period to reflect that staff addition needed to address new air emissions regulations. A trend or multi-year averaging approach would not reflect the incremental requirements.

**Non-Labor - Base YR Rec**

A base year forecast method is used for this cost category with incremental requirements beyond the base year activity level forecast using a zero-base methodology. This method is most appropriate because trends, multi-year averages or other methods would not reflect the additional costs related to staff additions and increased travel due to agency activities.

**NSE - Base YR Rec**

Not applicable

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		381	383	443	459	530	637	637	637	
Non-Labor		46	26	76	53	41	119	119	199	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>427</b>	<b>409</b>	<b>520</b>	<b>512</b>	<b>570</b>	<b>755</b>	<b>755</b>	<b>835</b>	
FTE		3.3	3.4	3.9	4.0	4.1	5.0	5.0	5.0	

*Note: Totals may include rounding differences.*

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 Witness: Jeffrey G. Reed  
 Category: A. Policy and Environmental Solutions  
 Category-Sub: 1. Policy and Environmental Solutions  
 Cost Center: 2200-2288.000 - ENVIRONMENTAL AFFAIRS

**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	3	0	0	3	0.00	3	0	0	3	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.01
Subj. To % Alloc.	526	40	0	566	4.12	633	118	0	751	5.02
<b>Total Incurred</b>	<b>529</b>	<b>40</b>	<b>0</b>	<b>569</b>	<b>4.12</b>	<b>636</b>	<b>118</b>	<b>0</b>	<b>754</b>	<b>5.03</b>
<b>% Allocation</b>										
Retained	92.75%	92.75%				95.75%	95.75%			
SEU	7.25%	7.25%				4.25%	4.25%			
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	3	0	0	3	0.00	3	0	0	3	0.00
Directly Allocated	0	0	0	0	0.01	0	0	0	0	0.01
Subj. To % Alloc.	633	118	0	751	5.02	633	198	0	831	5.02
<b>Total Incurred</b>	<b>636</b>	<b>118</b>	<b>0</b>	<b>754</b>	<b>5.03</b>	<b>636</b>	<b>198</b>	<b>0</b>	<b>834</b>	<b>5.03</b>
<b>% Allocation</b>										
Retained	95.75%	95.75%				95.75%	95.75%			
SEU	4.25%	4.25%				4.25%	4.25%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

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

**Cost Center Allocation Percentage for 2013**

The allocation methodology is based on the cost center manager's assessment of time spent completing specific activities and the allocation of this time between the utilities.

**Cost Center Allocation Percentage for 2014**

The allocation methodology is based on the cost center manager's assessment of time spent completing specific activities and the allocation of this time between the utilities.

**Cost Center Allocation Percentage for 2015**

The allocation methodology is based on the cost center manager's assessment of time spent completing specific activities and the allocation of this time between the utilities.

**Cost Center Allocation Percentage for 2016**

The allocation methodology is based on the cost center manager's assessment of time spent completing specific activities and the allocation of this time between the utilities.

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	530	530	530	107	107	107	637	637	637
Non-Labor	Base YR Rec	41	41	41	78	78	158	119	119	199
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>570</b>	<b>570</b>	<b>570</b>	<b>185</b>	<b>185</b>	<b>265</b>	<b>755</b>	<b>755</b>	<b>835</b>
FTE	Base YR Rec	4.1	4.1	4.1	0.9	0.9	0.9	5.0	5.0	5.0

**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	107	30	0	137	0.9	1-Sided Adj

Labor: Full year salary effect for CARB project manager hired in 2013. Non-labor: Increase travel costs to Sacramento and San Francisco to attend meetings and engage with state agencies in regulatory and policy development discussions and consulting cost to respond to data analysis and third party studies.

2014	0	28	0	28	0.0	1-Sided Adj
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SCAQMD SJVAPCD and ARB will enact rules related to their AQMP/SIP and AB32 activities that will impact SoCalGas customers. Therefore, additional engineering & environmental services will be needed for customers to understand how these rules will impact their operations and planning for equipment replacement. This effort will significantly increase in later years to address the numerous Rules to be enacted for the 2016 AQMPs at SCAQMD and SJVAPCD.

2014	0	20	0	20	0.0	1-Sided Adj
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EPA is currently considering a new standard for ozone that will have profound impacts on customers in our service territory. Additional travel and analysis will be required to understand the implications of these proceedings and to provide credible technical responses on behalf of our customers.

<b>2014 Total</b>	<b>107</b>	<b>78</b>	<b>0</b>	<b>185</b>	<b>0.9</b>	
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2015	107	30	0	137	0.9	1-Sided Adj
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Labor: Full year salary effect for CARB project manager hired in 2013. Non-labor: Increase travel costs to Sacramento and San Francisco to attend meetings and engage with state agencies in regulatory and policy development discussions and consulting cost to respond to data analysis and third party studies.

*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>
2015	0	28	0	28	0.0	1-Sided Adj

SCAQMD SJVAPCD and ARB will enact rules related to their AQMP/SIP and AB32 activities that will impact SoCalGas customers. Therefore, additional engineering & environmental support will be needed for customers to understand how these rules will impact their operations and planning for equipment replacement. This effort will significantly increase in later years to address the numerous Rules to be enacted for the 2016 AQMPs at SCAQMD and SJVAPCD.

2015	0	20	0	20	0.0	1-Sided Adj
------	---	----	---	----	-----	-------------

EPA is currently considering a new standard for ozone that will have profound impacts on customers in our service territory. Additional travel and analysis will be required to understand the implications of these proceedings and to provide credible technical responses on behalf of our customers.

<b>2015 Total</b>	<b>107</b>	<b>78</b>	<b>0</b>	<b>185</b>	<b>0.9</b>	
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2016	107	30	0	137	0.9	1-Sided Adj
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Labor: Full year salary effect for CARB project manager hired in 2013. Non-labor: Increase travel costs to Sacramento and San Francisco to attend meetings and engage with state agencies in regulatory and policy development discussions and consulting cost to respond to data analysis and third party studies.

2016	0	128	0	128	0.0	1-Sided Adj
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SCAQMD SJVAPCD and ARB will enact rules related to their AQMP/SIP and AB32 activities that will impact SoCalGas customers. Therefore, additional engineering & environmental support will be needed for customers to understand how these rules will impact their operations and planning for equipment replacement. This effort will significantly increase in later years to address the numerous Rules to be enacted for the 2016 AQMPs at SCAQMD and SJVAPCD.

<b>2016 Total</b>	<b>107</b>	<b>158</b>	<b>0</b>	<b>265</b>	<b>0.9</b>	
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Note: Totals may include rounding differences.

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 Cost Center: 2200-2288.000 - ENVIRONMENTAL AFFAIRS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	156	178	431	571	454
Non-Labor	25	8	72	51	41
NSE	0	0	0	0	0
<b>Total</b>	<b>181</b>	<b>186</b>	<b>503</b>	<b>621</b>	<b>495</b>
FTE	1.5	1.7	3.6	4.4	3.7
<b>Adjustments (Nominal \$) **</b>					
Labor	140	128	-67	-184	0
Non-Labor	17	16	1	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>158</b>	<b>144</b>	<b>-65</b>	<b>-182</b>	<b>0</b>
FTE	1.3	1.2	-0.3	-1.0	-0.2
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	297	306	364	387	454
Non-Labor	42	24	73	52	41
NSE	0	0	0	0	0
<b>Total</b>	<b>339</b>	<b>330</b>	<b>437</b>	<b>439</b>	<b>495</b>
FTE	2.8	2.9	3.3	3.4	3.5
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	50	51	60	62	75
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>50</b>	<b>51</b>	<b>60</b>	<b>62</b>	<b>75</b>
FTE	0.5	0.5	0.6	0.6	0.6
<b>Escalation to 2013\$</b>					
Labor	34	26	19	10	0
Non-Labor	4	2	3	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>38</b>	<b>28</b>	<b>22</b>	<b>11</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	381	383	443	459	530
Non-Labor	46	26	76	53	41
NSE	0	0	0	0	0
<b>Total</b>	<b>427</b>	<b>409</b>	<b>520</b>	<b>512</b>	<b>570</b>
FTE	3.3	3.4	3.9	4.0	4.1

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

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

Note: Totals may include rounding differences.

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**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	140	128	-67	-184	-0.055
Non-Labor	17	16	1	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>158</b>	<b>144</b>	<b>-65</b>	<b>-182</b>	<b>-0.055</b>
FTE	1.3	1.2	-0.3	-1.0	-0.2

**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	140	17	0	1.3	CCTR Transf	From 2100-3464.000	CSCHRAMM2013 1108174751103
Transfer labor FTE and non-labor costs associated with SoCalGas Environmental Affairs Manager, and Program Manager functions from USS cost center 2100-3464 SDG&E Environmental Affairs to SoCalGas USS cost center 2200-2288 SoCalGas Environmental Affairs to align costs where function resides due to re-organization.							
<b>2009 Total</b>	<b>140</b>	<b>17</b>	<b>0</b>	<b>1.3</b>			
2010	128	16	0	1.2	CCTR Transf	From 2100-3464.000	CSCHRAMM2013 1108175332057
Transfer labor FTE and non-labor costs associated with SoCalGas Environmental Affairs Manager, and Program Manager functions from USS cost center 2100-3464 SDG&E Environmental Affairs to SoCalGas USS cost center 2200-2288 SoCalGas Environmental Affairs to align costs where function resides due to re-organization.							
<b>2010 Total</b>	<b>128</b>	<b>16</b>	<b>0</b>	<b>1.2</b>			
2011	7	1	0	0.1	CCTR Transf	From 2100-3464.000	CSCHRAMM2013 1108175440157
Transfer labor FTE and non-labor costs associated with SoCalGas Environmental Affairs Manager, and Program Manager functions from USS cost center 2100-3464 SDG&E Environmental Affairs to SoCalGas USS cost center 2200-2288 SoCalGas Environmental Affairs to align costs where function resides due to re-organization.							

*Note: Totals may include rounding differences.*

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<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	-74	0	0	-0.4	CCTR Transf	To 2200-2396.000	EPANAMEN2014 0425161822680
Transfer labor and FTE costs associated with the Policy and Environmental Solutions Director roles from 2200-2288 Environmental Affairs cost center to USS cost center 2200-2396 to align functions where they reside and will be forecast.							
<b>2011 Total</b>	<b>-67</b>	<b>1</b>	<b>0</b>	<b>-0.3</b>			

2012	0	1	0	0.0	CCTR Transf	From 2100-3464.000	CSCHRAMM2013 1108175834783
Transfer non-labor costs associated with SoCalGas Environmental Affairs Manager, and Program Manager functions from USS cost center 2100-3464 SDG&E Environmental Affairs to SoCalGas USS cost center 2200-2288 SCG Environmental Affairs to align costs where function resides due to re-organization.							

2012	-184	0	0	-1.0	CCTR Transf	To 2200-2396.000	EPANAMEN2014 0425162517773
Transfer labor and FTE costs associated with the Policy and Environmental Solutions Director roles from 2200-2288 Environmental Affairs cost center to USS cost center 2200-2396 to align functions where they reside and will be forecast.							
<b>2012 Total</b>	<b>-184</b>	<b>1</b>	<b>0</b>	<b>-1.0</b>			

2013	-0.055	0	0	-0.2	CCTR Transf	To 2200-2396.000	EPANAMEN2014 0515153653427
Transfer labor and FTE costs associated with the Policy and Environmental Solutions Director roles from 2200-2288 Environmental Affairs cost center to USS cost center 2200-2396 to align functions where they reside and will be forecast.							
<b>2013 Total</b>	<b>-0.055</b>	<b>0</b>	<b>0</b>	<b>-0.2</b>			

Note: Totals may include rounding differences.

**Beginning of Workpaper**  
**2200-2396.000 - POLICY AND ENVIRONMENTAL SOLUTIONS**

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 Cost Center: 2200-2396.000 - POLICY AND ENVIRONMENTAL SOLUTIONS

**Activity Description:**

This group provides policy analysis, agency engagement and outreach related to policies, laws and regulations related to natural gas delivery and utilization. Specific areas of activity include legislation related to natural gas utilization, environmental policy and regulation (such as greenhouse gas regulation) and energy policy and regulation (such as the CEC Integrated Energy Policy Report).

**Forecast Explanations:**

**Labor - Base YR Rec**

A base year forecast method is used for this cost category with incremental activity beyond the base year activity level forecast using a zero-base methodology. This method is most appropriate because trends, multi-year averages or other methods would not reflect the fact that Policy and Environmental Solutions is a newly formed organization that consolidates several pre-existing functions but also adds new functions not included in the predecessor organizations. They would also not reflect the impact of new regulations and policy matters that will need to be addressed during the forecast period that were not in effect during the historical period.

**Non-Labor - Base YR Rec**

A base year forecast method is used for this cost category with incremental requirements beyond the base year activity level forecast using a zero-base methodology. This method is most appropriate because trends, multi-year averages or other methods would not reflect the additional need for external expert analysis needed to address proposed regulations, rulemakings and legislative proposals expected during the forecast period that were not ongoing during the historical period.

**NSE - Base YR Rec**

Not applicable.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	48	235	435	407	880	1,224	1,303	
Non-Labor		0	563	1,552	1,168	1,367	1,367	1,717	1,867	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>611</b>	<b>1,787</b>	<b>1,603</b>	<b>1,774</b>	<b>2,247</b>	<b>2,941</b>	<b>3,170</b>	
FTE		0.0	0.4	1.8	3.6	3.7	8.2	11.5	12.0	

*Note: Totals may include rounding differences.*

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**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	202	1,331	0	1,533	2.17	202	1,331	0	1,533	2.17
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	205	37	0	242	1.50	678	37	0	715	6.00
<b>Total Incurred</b>	<b>407</b>	<b>1,368</b>	<b>0</b>	<b>1,775</b>	<b>3.67</b>	<b>880</b>	<b>1,368</b>	<b>0</b>	<b>2,248</b>	<b>8.17</b>
<b>% Allocation</b>										
Retained	94.32%	94.32%				86.23%	86.23%			
SEU	5.68%	5.68%				13.77%	13.77%			
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	202	1,331	0	1,533	2.17	202	1,331	0	1,533	2.17
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	1,022	387	0	1,409	9.30	1,101	537	0	1,638	9.80
<b>Total Incurred</b>	<b>1,224</b>	<b>1,718</b>	<b>0</b>	<b>2,942</b>	<b>11.47</b>	<b>1,303</b>	<b>1,868</b>	<b>0</b>	<b>3,171</b>	<b>11.97</b>
<b>% Allocation</b>										
Retained	86.23%	86.23%				86.23%	86.23%			
SEU	13.77%	13.77%				13.77%	13.77%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

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

**Cost Center Allocation Percentage for 2013**

2013 allocation was based on assessment of staff time splits on matters of benefit to both SDG&E and SoCalGas versus those applicable only to SoCalGas.

**Cost Center Allocation Percentage for 2014**

The activity will be allocated based on gas revenues for the two utilities.

**Cost Center Allocation Percentage for 2015**

The activity will be allocated based on gas revenues for the two utilities.

**Cost Center Allocation Percentage for 2016**

The activity will be allocated based on gas revenues for the two utilities.

Note: Totals may include rounding differences.

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 Cost Center: 2200-2396.000 - POLICY AND ENVIRONMENTAL SOLUTIONS

**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	407	407	407	473	817	896	880	1,224	1,303
Non-Labor	Base YR Rec	1,367	1,367	1,367	0	350	500	1,367	1,717	1,867
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>1,774</b>	<b>1,774</b>	<b>1,774</b>	<b>473</b>	<b>1,167</b>	<b>1,396</b>	<b>2,247</b>	<b>2,941</b>	<b>3,170</b>
FTE	Base YR Rec	3.7	3.7	3.7	4.5	7.8	8.3	8.2	11.5	12.0

**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	473	0	0	473	4.5	1-Sided Adj

Incremental FTEs needed to support Policy and Environmental Solutions; 2.1 FTEs Policy Advisors = \$204k; 1.6 FTEs Policy Managers (0.7 FTE full year effect for manager hired in 2013) = \$216k; 0.8 FTE Administrative Assistant = \$53k to support an increased volume of activity relative to proceedings at the ARB, CEC, CPUC and local air districts.

<b>2014 Total</b>	<b>473</b>	<b>0</b>	<b>0</b>	<b>473</b>	<b>4.5</b>	
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2015	817	0	0	817	7.8	1-Sided Adj
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Incremental FTEs needed to support Policy and Environmental Solutions; 5.1 FTEs Policy Advisors = \$522k; 1.7 FTEs Policy Managers (0.7 FTE full year effect for Manager hired in 2013) = \$229k; 1 FTE Administrative Assistant = \$66k to support an increased volume of activity relative to proceedings at the ARB, CEC, CPUC and local air districts.

2015	0	350	0	350	0.0	1-Sided Adj
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The majority of the incremental request is for external experts retained by SoCalGas to develop and report on analyses produce studies and reports that explore the long term role of natural gas in meeting California's GHG and air quality goals, as well as sponsorship of energy and environmental policy forums. In addition, the non-labor will be used for travel and other miscellaneous expenses. See testimony Ex. SCG-13 for breakdown of non-labor costs.

<b>2015 Total</b>	<b>817</b>	<b>350</b>	<b>0</b>	<b>1,167</b>	<b>7.8</b>	
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2016	896	0	0	896	8.3	1-Sided Adj
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Note: Totals may include rounding differences.

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: A. Policy and Environmental Solutions  
 Category-Sub: 1. Policy and Environmental Solutions  
 Cost Center: 2200-2396.000 - POLICY AND ENVIRONMENTAL SOLUTIONS

<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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Incremental FTEs needed to support Policy and Environmental Solutions; 5.6 FTEs Policy Advisors = \$601k; 1.7 FTEs Policy Managers (0.7 FTE full year effect for Manager hired in 2013) = \$229k; 1 FTE Administrative Assistant = \$66k to support the upcoming regulatory proceedings will require additional staff support an increased volume of activity relative to proceedings at the ARB, CEC, CPUC and local air districts.

2016	0	500	0	500	0.0	1-Sided Adj
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The majority of the incremental request is for external experts retained by SoCalGas to develop and report on analyses produce studies and reports that explore the long term role of natural gas in meeting California's GHG and air quality goals, as well as sponsorship of energy and environmental policy forums. See testimony Ex. SCG-13 for breakdown of non-labor costs.

<b>2016 Total</b>	<b>896</b>	<b>500</b>	<b>0</b>	<b>1,396</b>	<b>8.3</b>	
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*Note: Totals may include rounding differences.*

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 Cost Center: 2200-2396.000 - POLICY AND ENVIRONMENTAL SOLUTIONS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	68	183	179
Non-Labor	0	0	2	1,142	1,331
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>71</b>	<b>1,325</b>	<b>1,509</b>
FTE	0.0	0.0	0.7	2.1	1.9
<b>Adjustments (Nominal \$) **</b>					
Labor	0	38	124	184	170
Non-Labor	0	525	1,483	0	37
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>563</b>	<b>1,608</b>	<b>184</b>	<b>207</b>
FTE	0.0	0.3	0.8	1.0	1.2
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	38	193	367	349
Non-Labor	0	525	1,486	1,142	1,367
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>563</b>	<b>1,678</b>	<b>1,509</b>	<b>1,716</b>
FTE	0.0	0.3	1.5	3.1	3.1
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	7	32	59	58
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>7</b>	<b>32</b>	<b>59</b>	<b>58</b>
FTE	0.0	0.1	0.3	0.5	0.5
<b>Escalation to 2013\$</b>					
Labor	0	3	10	9	0
Non-Labor	0	38	66	25	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>42</b>	<b>76</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	48	235	435	407
Non-Labor	0	563	1,552	1,168	1,367
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>611</b>	<b>1,787</b>	<b>1,603</b>	<b>1,774</b>
FTE	0.0	0.4	1.8	3.6	3.6

\* 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.

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 Cost Center: 2200-2396.000 - POLICY AND ENVIRONMENTAL SOLUTIONS

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	38	124	184	170
Non-Labor	0	525	1,483	0	37
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>563</b>	<b>1,608</b>	<b>184</b>	<b>207</b>
FTE	0.0	0.3	0.8	1.0	1.2

**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>			
2010	38	0	0	0.3	CCTR Transf	From 2200-0229.000	CMAK201311011 11514537
	Cost alignment adjustment - Transfer "Gas Sustainability Initiatives" labor and FTE costs for 1 Project Manager from NSS 2200-0229 to USS 2200-2396 due to reorganization. (Workpaper 2IN004.000 to Workpaper 2200-2396.000)						
2010	0	525	0	0.0	CCTR Transf	From 2200-0229.000	CMAK201311011 11730047
	Cost alignment adjustment - Transfer "Gas Sustainability Initiatives" non-labor activities from NSS 2200-0229 to USS 2200-2396 due to reorganization. (Workpaper 2IN004.000 to Workpaper 2200-2396.000)						
<b>2010 Total</b>	<b>38</b>	<b>525</b>	<b>0</b>	<b>0.3</b>			
2011	51	0	0	0.4	CCTR Transf	From 2200-0229.000	CMAK201311011 42519790
	Cost alignment adjustment - Transfer "Gas Sustainability Initiatives" labor and FTE costs for 1 Project Manager from NSS 2200-0229 to USS 2200-2396 due to reorganization. (Workpaper 2IN004.000 to Workpaper 2200-2396.000)						
2011	0	1,483	0	0.0	CCTR Transf	From 2200-0229.000	CMAK201311011 42803560
	Cost alignment adjustment - Transfer "Gas Sustainability Initiatives" non-labor activities from NSS 2200-0229 to USS 2200-2396 due to reorganization. (Workpaper 2IN004.000 to Workpaper 2200-2396.000)						

Note: Totals may include rounding differences.

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 Witness: Jeffrey G. Reed  
 Category: A. Policy and Environmental Solutions  
 Category-Sub: 1. Policy and Environmental Solutions  
 Cost Center: 2200-2396.000 - POLICY AND ENVIRONMENTAL SOLUTIONS

<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	74	0	0	0.4	CCTR Transf	From 2200-2288.000	EPANAMEN2014 0425161822680
Transfer labor and FTE costs associated with the Policy and Environmental Solutions Director roles from 2200-2288 Environmental Affairs cost center to USS cost center 2200-2396 to align functions where they reside and will be forecast.							
<b>2011 Total</b>	<b>124</b>	<b>1,483</b>	<b>0</b>	<b>0.8</b>			
2012	184	0	0	1.0	CCTR Transf	From 2200-2288.000	EPANAMEN2014 0425162517773
Transfer labor and FTE costs associated with the Policy and Environmental Solutions Director roles from 2200-2288 Environmental Affairs cost center to USS cost center 2200-2396 to align functions where they reside and will be forecast.							
<b>2012 Total</b>	<b>184</b>	<b>0</b>	<b>0</b>	<b>1.0</b>			
2013	170	37	0	1.0	CCTR Transf	From 2200-2480.000	EPANAMEN2014 0425160027907
Transfer historical expense from cost center 2200-2480 Policy & Environmental Solutions to cost center 2200-2396 in order to align the historical expense with where it is being forecast. Policy & Environmental Solutions related expenses are forecast in cost center 2200-2396.							
2013	0.055	0	0	0.2	CCTR Transf	From 2200-2288.000	EPANAMEN2014 0515153653427
Transfer labor and FTE costs associated with the Policy and Environmental Solutions Director roles from 2200-2288 Environmental Affairs cost center to USS cost center 2200-2396 to align functions where they reside and will be forecast.							
<b>2013 Total</b>	<b>170</b>	<b>37</b>	<b>0</b>	<b>1.2</b>			

Note: Totals may include rounding differences.

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: B. Natural Gas Vehicle Program  
 Cost Center: 2200-0234.000

**Summary for Category: B. Natural Gas Vehicle Program**

	In 2013\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	618	816	1,002	1,111
Non-Labor	815	878	943	1,161
NSE	0	0	0	0
<b>Total</b>	<b>1,433</b>	<b>1,694</b>	<b>1,945</b>	<b>2,272</b>
FTE	6.9	9.1	10.9	11.9

**Cost Centers belonging to this Category:**

**2200-0234.000 NGV PROGRAM**

Labor	618	816	1,002	1,111
Non-Labor	815	878	943	1,161
NSE	0	0	0	0
<b>Total</b>	<b>1,433</b>	<b>1,694</b>	<b>1,945</b>	<b>2,272</b>
FTE	6.9	9.1	10.9	11.9

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2200-0234.000 - NGV PROGRAM**

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: B. Natural Gas Vehicle Program  
 Category-Sub: 1. Natural Gas Vehicle Program  
 Cost Center: 2200-0234.000 - NGV PROGRAM

**Activity Description:**

This cost center supports the Low Emission Vehicle Program; providing Natural Gas Vehicle (NGV) utility account management, customer information, education, and training services to the general public, operators of NGVs, operators of NGV refueling stations, government agencies, and others throughout the service territories of SoCalGas and SDG&E.

**Forecast Explanations:**

**Labor - Base YR Rec**

A base year forecast method is used for this cost category with incremental funding in addition to the base year forecast established using a zero-base methodology. The base year accurately reflects activity levels necessary to support the requirements in this functional area exclusive of incremental resource requirements. Additional resource needs for activities above the base year level are added to the base year forecast using a zero base approach based on work driver analysis (active NGV accounts and population of prospective new customers). This approach is superior to averaging or trend analysis as it most accurately reflects the resource requirements matching activity levels in the forecast period.

**Non-Labor - Base YR Rec**

A base year forecast method is used for this cost category with incremental funding in addition to the base year forecast established using a zero-base methodology. The base year accurately reflects activity levels necessary to support the requirements in this functional area exclusive of incremental resource requirements. Additional resource needs for activities above the base year level are added to the base year forecast using a zero base approach based on work driver analysis (active NGV accounts, forecast growth in annual new additions, customer outreach activity to additional fleet owners and related to activity areas such as high-horsepower, off-road applications). This approach is superior to averaging or trend analysis as it most accurately reflects the resource requirements matching activity levels in the forecast period.

**NSE - Base YR Rec**

Not applicable.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		675	711	628	620	618	816	1,002	1,111	
Non-Labor		755	768	838	1,276	815	878	943	1,161	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1,431</b>	<b>1,479</b>	<b>1,467</b>	<b>1,896</b>	<b>1,432</b>	<b>1,693</b>	<b>1,944</b>	<b>2,271</b>	
FTE		7.6	8.2	7.1	6.9	6.9	9.1	10.9	11.9	

*Note: Totals may include rounding differences.*

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: B. Natural Gas Vehicle Program  
 Category-Sub: 1. Natural Gas Vehicle Program  
 Cost Center: 2200-0234.000 - NGV PROGRAM

**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	2	23	0	25	0.00	2	23	0	25	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	616	792	0	1,408	6.87	814	855	0	1,669	9.07
<b>Total Incurred</b>	<b>618</b>	<b>815</b>	<b>0</b>	<b>1,433</b>	<b>6.87</b>	<b>816</b>	<b>878</b>	<b>0</b>	<b>1,694</b>	<b>9.07</b>
<b>% Allocation</b>										
Retained	92.29%	92.29%				91.96%	91.96%			
SEU	7.71%	7.71%				8.04%	8.04%			
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	2	23	0	25	0.00	2	23	0	25	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	1,000	920	0	1,920	10.87	1,109	1,138	0	2,247	11.87
<b>Total Incurred</b>	<b>1,002</b>	<b>943</b>	<b>0</b>	<b>1,945</b>	<b>10.87</b>	<b>1,111</b>	<b>1,161</b>	<b>0</b>	<b>2,272</b>	<b>11.87</b>
<b>% Allocation</b>										
Retained	91.96%	91.96%				91.96%	91.96%			
SEU	8.04%	8.04%				8.04%	8.04%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

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Cost Center: 2200-0234.000 - NGV PROGRAM

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

**Cost Center Allocation Percentage for 2013**

The allocation % is estimated proportionally using NGV meter counts for each utility. Meter count is a good proxy for the relative amount of resources required to provide customer information, education, and training programs.

**Cost Center Allocation Percentage for 2014**

The allocation % is estimated proportionally using NGV meter counts for each utility. Meter count is a good proxy for the relative amount of resources required to provide customer information, education, and training programs.

**Cost Center Allocation Percentage for 2015**

The allocation % is estimated proportionally using NGV meter counts for each utility. Meter count is a good proxy for the relative amount of resources required to provide customer information, education, and training programs.

**Cost Center Allocation Percentage for 2016**

The allocation % is estimated proportionally using NGV meter counts for each utility. Meter count is a good proxy for the relative amount of resources required to provide customer information, education, and training programs.

*Note: Totals may include rounding differences.*

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 Category-Sub: 1. Natural Gas Vehicle Program  
 Cost Center: 2200-0234.000 - NGV PROGRAM

**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	618	618	618	198	384	493	816	1,002	1,111
Non-Labor	Base YR Rec	815	815	815	63	128	346	878	943	1,161
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>1,432</b>	<b>1,432</b>	<b>1,432</b>	<b>261</b>	<b>512</b>	<b>839</b>	<b>1,693</b>	<b>1,944</b>	<b>2,271</b>
FTE	Base YR Rec	6.9	6.9	6.9	2.2	4.0	5.0	9.1	10.9	11.9

**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	198	15	0	213	2.2	1-Sided Adj

Labor costs for 2.2 FTEs (1.5 Account Executive at \$83k and 0.7 Market Advisor at \$109k; the new hires reflecting only partial cost in 2014) to provide account management and customer outreach activities. The non-labor is for employee expenses associated with incremental FTEs.

2014	0	48	0	48	0.0	1-Sided Adj
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Incremental costs will be used for education and outreach on Low-Carbon Fuel Standard administration. Customer outreach includes the development and delivery of customer information, education, training and outreach and facilitation of customer new service requests for transportation application.

<b>2014 Total</b>	<b>198</b>	<b>63</b>	<b>0</b>	<b>261</b>	<b>2.2</b>	
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2015	384	28	0	412	4.0	1-Sided Adj
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Labor costs for 4 FTEs (2 Account Executive at \$83k and 2 Market Advisors at \$109k) to provide account management, customer outreach activities and natural gas vehicle off-road (rail, maritime, off-road vehicles) market education. The non-labor is for employee expenses associated with incremental FTEs.

2015	0	100	0	100	0.0	1-Sided Adj
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Incremental cost will be used for Low-Carbon Fuel Standard administration (\$48k) and natural gas vehicle off/on-road (\$52k) education and outreach. Specific activities include account management and customer outreach for both on-road and off-road NGVs, Low-Carbon Fuel Standard customer outreach and administration. Customer outreach includes the development and delivery of customer information, education, training and outreach and facilitation of customer new service requests for transportation application.

Note: Totals may include rounding differences.

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 Cost Center: 2200-0234.000 - NGV PROGRAM

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
<b>2015 Total</b>	<b>384</b>	<b>128</b>	<b>0</b>	<b>512</b>	<b>4.0</b>	
2016	493	84	0	577	5.0	1-Sided Adj
<p>Labor costs for 5 FTEs (2 Account Executives at \$83k and 3 Market Advisors at \$109k) to provide account management, customer outreach activities, natural gas vehicle off-road (rail, maritime, off-road vehicles) market education and commuter and home refueling appliance market education and outreach. The non-labor is for employee expenses associated with incremental FTEs.</p>						
2016	0	262	0	262	0.0	1-Sided Adj
<p>Incremental cost will be used for Low-Carbon Fuel Standard administration (\$48k), natural gas vehicle off/on-road (\$52k), commuter and home refueling appliance market education (\$52k), and outreach program costs and customer safety training courses (\$110k). Specific activities include account management and customer outreach for both on-road and off-road NGVs, Low Carbon Fuel Standard (LCFS) customer outreach and administration, commuter and home refueling appliance account management and customer outreach, and customer safety training courses. Customer outreach includes the development and delivery of customer information, education, training and outreach and facilitation of customer new service requests for transportation application.</p>						
<b>2016 Total</b>	<b>493</b>	<b>346</b>	<b>0</b>	<b>839</b>	<b>5.0</b>	

Note: Totals may include rounding differences.

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Witness: Jeffrey G. Reed  
Category: B. Natural Gas Vehicle Program  
Category-Sub: 1. Natural Gas Vehicle Program  
Cost Center: 2200-0234.000 - NGV PROGRAM

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	529	571	518	523	530
Non-Labor	688	717	803	1,311	827
NSE	0	0	0	0	0
<b>Total</b>	<b>1,217</b>	<b>1,288</b>	<b>1,321</b>	<b>1,834</b>	<b>1,356</b>
FTE	6.5	6.9	6.1	6.0	5.9
<b>Adjustments (Nominal \$) **</b>					
Labor	-8	-7	-3	0	0
Non-Labor	-1	-1	0	-63	-12
NSE	0	0	0	0	0
<b>Total</b>	<b>-9</b>	<b>-8</b>	<b>-3</b>	<b>-63</b>	<b>-12</b>
FTE	-0.1	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	521	564	516	523	530
Non-Labor	687	716	803	1,248	815
NSE	0	0	0	0	0
<b>Total</b>	<b>1,208</b>	<b>1,280</b>	<b>1,319</b>	<b>1,771</b>	<b>1,344</b>
FTE	6.4	6.9	6.1	6.0	5.9
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	94	99	86	84	88
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>94</b>	<b>99</b>	<b>86</b>	<b>84</b>	<b>88</b>
FTE	1.2	1.3	1.0	1.0	1.0
<b>Escalation to 2013\$</b>					
Labor	61	48	27	14	0
Non-Labor	68	52	36	28	0
NSE	0	0	0	0	0
<b>Total</b>	<b>129</b>	<b>101</b>	<b>62</b>	<b>41</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	675	711	628	620	618
Non-Labor	755	768	838	1,276	815
NSE	0	0	0	0	0
<b>Total</b>	<b>1,431</b>	<b>1,479</b>	<b>1,467</b>	<b>1,896</b>	<b>1,432</b>
FTE	7.6	8.2	7.1	7.0	6.9

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

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

Note: Totals may include rounding differences.

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: B. Natural Gas Vehicle Program  
 Category-Sub: 1. Natural Gas Vehicle Program  
 Cost Center: 2200-0234.000 - NGV PROGRAM

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-8	-7	-3	-0.049	0
Non-Labor	-0.716	-0.795	0	-63	-12
NSE	0	0	0	0	0
<b>Total</b>	<b>-9</b>	<b>-8</b>	<b>-3</b>	<b>-63</b>	<b>-12</b>
FTE	-0.1	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	-8	-0.716	0	-0.1	CCTR Transf	To 2100-3709.000	EPANAMEN2013 1108195740530
Transfer labor FTE and non-labor costs associated with Account Executive roles from SoCalGas USS cost center 2200-0234 NGV Program to SDG&E USS cost center 2100-3709 to align functions where they reside and will be forecast.							
<b>2009 Total</b>	<b>-8</b>	<b>-0.716</b>	<b>0</b>	<b>-0.1</b>			
2010	-0.247	0	0	0.0	1-Sided Adj	N/A	EPANAMEN2013 1103212414810
Pursuant to CPUC decision 12-12-037 Compression Service Tariff activities are excluded from base rates.							
2010	-7	-0.795	0	0.0	CCTR Transf	To 2100-3709.000	EPANAMEN2013 1108195903987
Transfer labor FTE and non-labor costs associated with Account Executive roles from SoCalGas USS cost center 2200-0234 NGV Program to SDG&E USS cost center 2100-3709 to align functions where they reside and will be forecast.							
<b>2010 Total</b>	<b>-7</b>	<b>-0.795</b>	<b>0</b>	<b>0.0</b>			
2011	-3	0	0	0.0	1-Sided Adj	N/A	EPANAMEN2013 1103212802803
Pursuant to CPUC decision 12-12-037 Compression Service Tariff activities are excluded from base rates.							
<b>2011 Total</b>	<b>-3</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: B. Natural Gas Vehicle Program  
 Category-Sub: 1. Natural Gas Vehicle Program  
 Cost Center: 2200-0234.000 - NGV PROGRAM

<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	-0.049	0	0	0.0	1-Sided Adj	N/A	EPANAMEN2013 1103213324977
Pursuant to CPUC decision 12-12-037 Compression Service Tariff activities are excluded from base rates.							
2012	0	-63	0	0.0	1-Sided Adj	N/A	EPANAMEN2014 0219205812950
To exclude costs associated with the NGV employee incentive program.							
<b>2012 Total</b>	<b>-0.049</b>	<b>-63</b>	<b>0</b>	<b>0.0</b>			
2013	0	-12	0	0.0	1-Sided Adj	N/A	EPANAMEN2014 0219205906970
To exclude costs associated with the NGV employee incentive program.							
<b>2013 Total</b>	<b>0</b>	<b>-12</b>	<b>0</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: C. Biofuels and Low-Carbon Resources Market Dev  
 Cost Center: 2200-2286.000

**Summary for Category: C. Biofuels and Low-Carbon Resources Market Dev**

	In 2013\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	133	415	415	415
Non-Labor	94	105	250	250
NSE	0	0	0	0
<b>Total</b>	<u>227</u>	<u>520</u>	<u>665</u>	<u>665</u>
FTE	1.0	3.5	3.5	3.5

**Cost Centers belonging to this Category:**

**2200-2286.000 BIOFUELS AND LOW-CARBON RESOURCES MARKET DEVELOPMENT**

Labor	133	415	415	415
Non-Labor	94	105	250	250
NSE	0	0	0	0
<b>Total</b>	<u>227</u>	<u>520</u>	<u>665</u>	<u>665</u>
FTE	1.0	3.5	3.5	3.5

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2200-2286.000 - BIOFUELS AND LOW-CARBON RESOURCES MARKET**  
**DEVELOPMENT**

Southern California Gas Company  
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Shared Services Workpapers

Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: C. Biofuels and Low-Carbon Resources Market Dev  
 Category-Sub: 1. Biofuels and Low-Carbon Resources Market Dev  
 Cost Center: 2200-2286.000 - BIOFUELS AND LOW-CARBON RESOURCES MARKET DEVELOPMENT

**Activity Description:**

The Biofuels Program cost center contains activities that include promoting and facilitating the growth of markets that support local, state and federal policies concerning the emissions of local criteria pollutants and greenhouse gases. A primary focus is to support, promote and further develop biomethane markets. Activities include market assessment, assessment of commercial products to serve the biogas market and customer engagement to promote the beneficial use of biogas and organic waste feedstocks.

**Forecast Explanations:**

**Labor - Zero-Based**

A zero-based forecast method is used for this cost category. The forecast is based on a return to activity levels of 2010 and 2011. Additional resource needs are added based on work driver analysis (population of prospective new customers). The primary change in work drivers is the inclusion of landfills as eligible sources of biogas for pipeline injection which roughly doubles the amount eligible biogas resource. The zero-based approach is superior to base year, averaging or trend analysis as it most accurately reflects the resource requirements matching activity levels in the forecast period and work drivers will change substantially in the forecast period

**Non-Labor - Zero-Based**

A zero-based forecast method is used for this cost category. The forecast is based on work driver analysis (population of prospective new customers). This approach is superior to base year, averaging or trend analysis as it most accurately reflects the resource requirements matching activity levels in the forecast period.

**NSE - Zero-Based**

Not applicable.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		224	399	358	222	133	415	415	415	
Non-Labor		58	422	279	112	94	105	250	250	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>283</b>	<b>821</b>	<b>637</b>	<b>334</b>	<b>226</b>	<b>520</b>	<b>665</b>	<b>665</b>	
FTE		2.0	3.1	2.7	1.5	1.0	3.5	3.5	3.5	

*Note: Totals may include rounding differences.*

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: C. Biofuels and Low-Carbon Resources Market Dev  
 Category-Sub: 1. Biofuels and Low-Carbon Resources Market Dev  
 Cost Center: 2200-2286.000 - BIOFUELS AND LOW-CARBON RESOURCES MARKET DEVELOPMENT

**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	80	0	80	0.00	0	0	0	0	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	133	14	0	147	0.95	415	105	0	520	3.50
<b>Total Incurred</b>	<b>133</b>	<b>94</b>	<b>0</b>	<b>227</b>	<b>0.95</b>	<b>415</b>	<b>105</b>	<b>0</b>	<b>520</b>	<b>3.50</b>
<b>% Allocation</b>										
Retained	95.00%	95.00%				95.00%	95.00%			
SEU	5.00%	5.00%				5.00%	5.00%			
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	0	0	0	0.00	0	0	0	0	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	415	250	0	665	3.50	415	250	0	665	3.50
<b>Total Incurred</b>	<b>415</b>	<b>250</b>	<b>0</b>	<b>665</b>	<b>3.50</b>	<b>415</b>	<b>250</b>	<b>0</b>	<b>665</b>	<b>3.50</b>
<b>% Allocation</b>										
Retained	95.00%	95.00%				95.00%	95.00%			
SEU	5.00%	5.00%				5.00%	5.00%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
Witness: Jeffrey G. Reed  
Category: C. Biofuels and Low-Carbon Resources Market Dev  
Category-Sub: 1. Biofuels and Low-Carbon Resources Market Dev  
Cost Center: 2200-2286.000 - BIOFUELS AND LOW-CARBON RESOURCES MARKET DEVELOPMENT

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

**Cost Center Allocation Percentage for 2013**

The majority of the biofuels market potential resides within SoCalGas service territory, and historically the majority of the biofuels market development team's labor and non-labor have been utilized based on market size potential.

**Cost Center Allocation Percentage for 2014**

The base year allocation for this cost center was 95% SoCalGas and 5% SDG&E. For TY 2016, the allocation will remain the same (95% SoCalGas and 5% SDG&E). During this GRC period, SoCalGas will be the primary beneficiary of this market development effort based on near term potential opportunities identified.

**Cost Center Allocation Percentage for 2015**

See above.

**Cost Center Allocation Percentage for 2016**

See above.

*Note: Totals may include rounding differences.*

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 Cost Center: 2200-2286.000 - BIOFUELS AND LOW-CARBON RESOURCES MARKET DEVELOPMENT

**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	Zero-Based	0	0	0	415	415	415	415	415	415
Non-Labor	Zero-Based	0	0	0	105	250	250	105	250	250
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>520</b>	<b>665</b>	<b>665</b>	<b>520</b>	<b>665</b>	<b>665</b>
FTE	Zero-Based	0.0	0.0	0.0	3.5	3.5	3.5	3.5	3.5	3.5

**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	415	35	0	450	3.5	1-Sided Adj

The labor request for 1 FTE (manager) at \$140k; 1 FTE (project manager) at \$103k; 1 FTE (project manager) at \$85k and .5 FTE (director) at \$87k to assist and educate customers on the opportunities, technologies and market drivers for the productive use of biogas and biomethane, as well as other markets important to state policy goals such as distributed generation. The non-labor will be used for travel expenses (\$10k x 3.5 FTE = \$35k).

2014	0	70	0	70	0.0	1-Sided Adj
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The costs for non-labor will be used to support staff to assess technology and market trends related to biogas, develop informational material, conduct customer outreach and consultation activities and conduct other market development activities such as participation in regulatory and industry association activities.

<b>2014 Total</b>	<b>415</b>	<b>105</b>	<b>0</b>	<b>520</b>	<b>3.5</b>	
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2015	415	35	0	450	3.5	1-Sided Adj
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The labor request for 1 FTE (manager) at \$140k; 1 FTE (project manager) at \$103k; 1 FTE (project manager) at \$85k and .5 FTE (director) at \$87k to assist and educate customers on the opportunities, technologies and market drivers for the productive use of biogas and biomethane, as well as other markets important to state policy goals such as distributed generation. The non-labor will be used for travel expenses (\$10k x 3.5 FTE = \$35k).

2015	0	215	0	215	0.0	1-Sided Adj
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The costs for non-labor will be used to support staff to assess technology and market trends related to biogas, develop informational material, conduct customer outreach and consultation activities and conduct other market development activities such as participation in regulatory and industry association activities.

*Note: Totals may include rounding differences.*

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: C. Biofuels and Low-Carbon Resources Market Dev  
 Category-Sub: 1. Biofuels and Low-Carbon Resources Market Dev  
 Cost Center: 2200-2286.000 - BIOFUELS AND LOW-CARBON RESOURCES MARKET DEVELOPMENT

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
<b>2015 Total</b>	<b>415</b>	<b>250</b>	<b>0</b>	<b>665</b>	<b>3.5</b>	
2016	415	35	0	450	3.5	1-Sided Adj
<p>The labor request for 1 FTE (manager) at \$140k; 1 FTE (project manager) at \$103k; 1 FTE (project manager) at \$85k and .5 FTE (director) at \$87k to assist and educate customers on the opportunities, technologies and market drivers for the productive use of biogas and biomethane, as well as other markets important to state policy goals such as distributed generation. The non-labor will be used for travel expenses (\$10k x 3.5 FTE = \$35k).</p>						
2016	0	215	0	215	0.0	1-Sided Adj
<p>The costs for non-labor will be used to support staff to assess technology and market trends related to biogas, develop informational material, conduct customer outreach and consultation activities and conduct other market development activities such as participation in regulatory and industry association activities.</p>						
<b>2016 Total</b>	<b>415</b>	<b>250</b>	<b>0</b>	<b>665</b>	<b>3.5</b>	

*Note: Totals may include rounding differences.*

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: C. Biofuels and Low-Carbon Resources Market Dev  
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 Cost Center: 2200-2286.000 - BIOFUELS AND LOW-CARBON RESOURCES MARKET DEVELOPMENT

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	173	177	296	187	114
Non-Labor	53	403	736	119	94
NSE	0	0	0	0	0
<b>Total</b>	<b>226</b>	<b>580</b>	<b>1,032</b>	<b>306</b>	<b>207</b>
FTE	1.7	1.7	2.3	1.3	0.8
<b>Adjustments (Nominal \$) **</b>					
Labor	0	142	-2	0	0
Non-Labor	0	-10	-469	-9	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>131</b>	<b>-470</b>	<b>-9</b>	<b>0</b>
FTE	0.0	0.9	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	173	318	294	187	114
Non-Labor	53	393	268	110	94
NSE	0	0	0	0	0
<b>Total</b>	<b>226</b>	<b>711</b>	<b>561</b>	<b>296</b>	<b>207</b>
FTE	1.7	2.6	2.3	1.3	0.8
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	31	53	49	30	19
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>31</b>	<b>53</b>	<b>49</b>	<b>30</b>	<b>19</b>
FTE	0.3	0.5	0.4	0.2	0.1
<b>Escalation to 2013\$</b>					
Labor	20	27	15	5	0
Non-Labor	5	29	12	2	0
NSE	0	0	0	0	0
<b>Total</b>	<b>25</b>	<b>56</b>	<b>27</b>	<b>7</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	224	399	358	222	133
Non-Labor	58	422	279	112	94
NSE	0	0	0	0	0
<b>Total</b>	<b>283</b>	<b>821</b>	<b>637</b>	<b>334</b>	<b>226</b>
FTE	2.0	3.1	2.7	1.5	0.9

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

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

Note: Totals may include rounding differences.

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: C. Biofuels and Low-Carbon Resources Market Dev  
 Category-Sub: 1. Biofuels and Low-Carbon Resources Market Dev  
 Cost Center: 2200-2286.000 - BIOFUELS AND LOW-CARBON RESOURCES MARKET DEVELOPMENT

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	142	-2	0	0
Non-Labor	0	-10	-469	-9	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>131</b>	<b>-470</b>	<b>-9</b>	<b>0</b>
FTE	0.0	0.9	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>			
2010	142	8	0	0.9	CCTR Transf	From 2100-3642.000	CSCHRAMM2013 1108074345013
Transfer costs associated with Biofuels Market Development Manager function from cost center 2100-3642 in work paper group 100011 Customer Programs and Projects to SoCalGas USS cost center 2200-2286 Biofuels Market Development to align costs with where function resides due to reorganization.							
2010	0	-18	0	0.0	1-Sided Adj	N/A	EPANAMEN2013 1118134739063
Costs related to a one-time project regulatory filing excluded from historical cost base for this function.							
<b>2010 Total</b>	<b>142</b>	<b>-10</b>	<b>0</b>	<b>0.9</b>			
2011	9	0.114	0	0.1	CCTR Transf	From 2100-3642.000	CSCHRAMM2013 1108074520380
Transfer costs associated with Biofuels Market Development Manager function from cost center 2100-3642 in work paper group 100011 Customer Programs and projects to SoCalGas USS cost center 2200-2286 Biofuels Market Development to align costs with where function resides due to reorganization.							
2011	-10	-469	0	-0.1	1-Sided Adj	N/A	EPANAMEN2013 1118134943803
Costs related to a one-time project regulatory filing excluded from historical cost base for this function.							

Note: Totals may include rounding differences.

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: C. Biofuels and Low-Carbon Resources Market Dev  
 Category-Sub: 1. Biofuels and Low-Carbon Resources Market Dev  
 Cost Center: 2200-2286.000 - BIOFUELS AND LOW-CARBON RESOURCES MARKET DEVELOPMENT

<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>-2</b>	<b>-469</b>	<b>0</b>	<b>0.0</b>			
2012	0	-9	0	0.0	1-Sided Adj	N/A	EPANAMEN2013 1118135022600
Costs related to a one-time project regulatory filing excluded from historical cost base for this function.							
<b>2012 Total</b>	<b>0</b>	<b>-9</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.*

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: D. Business Strategy and Development  
 Cost Center: 2200-2229.000

**Summary for Category: D. Business Strategy and Development**

	In 2013\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	510	714	727	727
Non-Labor	474	474	474	474
NSE	0	0	0	0
<b>Total</b>	<b>984</b>	<b>1,188</b>	<b>1,201</b>	<b>1,201</b>
FTE	5.0	6.8	7.0	7.0

**Cost Centers belonging to this Category:**

**2200-2229.000 BUSINESS STRATEGY AND DEVELOPMENT**

Labor	510	714	727	727
Non-Labor	474	474	474	474
NSE	0	0	0	0
<b>Total</b>	<b>984</b>	<b>1,188</b>	<b>1,201</b>	<b>1,201</b>
FTE	5.0	6.8	7.0	7.0

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2200-2229.000 - BUSINESS STRATEGY AND DEVELOPMENT**

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: D. Business Strategy and Development  
 Category-Sub: 1. Business Strategy and Development  
 Cost Center: 2200-2229.000 - BUSINESS STRATEGY AND DEVELOPMENT

**Activity Description:**

The purpose of the Business Strategy and Development group is to provide analytical and execution support for initiatives in four strategic priority area: operational excellence, development and deployment of clean energy solutions for customers, advocacy for sensible policies and regulations that support ratepayer interests and advance Commission policy, maintaining a properly skilled workforce. The group also coordinates long-range planning activities.

**Forecast Explanations:**

**Labor - Base YR Rec**

A base year forecast method is used for this cost category with incremental funding in addition to the base year forecast established using a zero base methodology. The base year accurately reflects activity levels necessary to support the requirements in this functional area exclusive of incremental resource requirements. Specific incremental activity requirements in support of new collaboration tools and processes to support innovation and initiatives development are added to the base year to develop the complete forecast.

**Non-Labor - Base YR Rec**

A base year forecast method is used for this cost category with incremental funding in addition to the base year forecast established using a zero base methodology. The base year accurately reflects activity levels necessary to support the requirements in this functional area exclusive of incremental requirements.

**NSE - Base YR Rec**

Not applicable.

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		526	411	424	371	510	714	727	727	
Non-Labor		31	241	349	596	474	474	474	474	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>557</b>	<b>652</b>	<b>772</b>	<b>967</b>	<b>984</b>	<b>1,188</b>	<b>1,201</b>	<b>1,201</b>	
FTE		4.6	3.5	3.7	3.2	5.0	6.8	7.0	7.0	

*Note: Totals may include rounding differences.*

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: D. Business Strategy and Development  
 Category-Sub: 1. Business Strategy and Development  
 Cost Center: 2200-2229.000 - BUSINESS STRATEGY AND DEVELOPMENT

**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	1	168	0	169	0.00	1	168	0	169	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	509	305	0	814	4.97	713	305	0	1,018	6.77
<b>Total Incurred</b>	<b>510</b>	<b>473</b>	<b>0</b>	<b>983</b>	<b>4.97</b>	<b>714</b>	<b>473</b>	<b>0</b>	<b>1,187</b>	<b>6.77</b>
<b>% Allocation</b>										
Retained	90.03%	90.03%				86.23%	86.23%			
SEU	9.97%	9.97%				13.77%	13.77%			
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	1	168	0	169	0.00	1	168	0	169	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	726	305	0	1,031	6.97	726	305	0	1,031	6.97
<b>Total Incurred</b>	<b>727</b>	<b>473</b>	<b>0</b>	<b>1,200</b>	<b>6.97</b>	<b>727</b>	<b>473</b>	<b>0</b>	<b>1,200</b>	<b>6.97</b>
<b>% Allocation</b>										
Retained	86.23%	86.23%				86.23%	86.23%			
SEU	13.77%	13.77%				13.77%	13.77%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

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

**Cost Center Allocation Percentage for 2013**

Allocation is based on reviewing project activity over the most recent 12 months and determining applicability to each utility. Staff time splits are used to establish the allocation percentages and these are updated on a rearward-looking, one-year basis each year.

**Cost Center Allocation Percentage for 2014**

Allocated based on revenue shares for the gas operations of SoCalGas and SDG&E which is the best proxy for the joint benefit of analysis and development tasks.

**Cost Center Allocation Percentage for 2015**

Allocated based on revenue shares for the gas operations of SoCalGas and SDG&E which is the best proxy for the joint benefit of analysis and development tasks.

**Cost Center Allocation Percentage for 2016**

Allocated based on revenue shares for the gas operations of SoCalGas and SDG&E which is the best proxy for the joint benefit of analysis and development tasks.

Note: Totals may include rounding differences.

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
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 Category-Sub: 1. Business Strategy and Development  
 Cost Center: 2200-2229.000 - BUSINESS STRATEGY AND DEVELOPMENT

**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	510	510	510	204	217	217	714	727	727
Non-Labor	Base YR Rec	474	474	474	0	0	0	474	474	474
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>984</b>	<b>984</b>	<b>984</b>	<b>204</b>	<b>217</b>	<b>217</b>	<b>1,188</b>	<b>1,201</b>	<b>1,201</b>
FTE	Base YR Rec	5.0	5.0	5.0	1.8	2.0	2.0	6.8	7.0	7.0

**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	204	0	0	204	1.8	1-Sided Adj

Incremental manager and analyst to support innovation and initiative collaboration, implementation and tracking tools (1 manager = \$152k and 0.8 analyst = \$52k partial year effect).

<b>2014 Total</b>	<b>204</b>	<b>0</b>	<b>0</b>	<b>204</b>	<b>1.8</b>	
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2015	217	0	0	217	2.0	1-Sided Adj
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Incremental manager and analyst to support innovation and initiative collaboration, implementation and tracking tools (1 manager = \$152k and 1 analyst = \$65k full year effect).

<b>2015 Total</b>	<b>217</b>	<b>0</b>	<b>0</b>	<b>217</b>	<b>2.0</b>	
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2016	217	0	0	217	2.0	1-Sided Adj
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Incremental manager and analyst to support innovation and initiative collaboration, implementation and tracking tools (1 manager = \$152k and 1 analyst = \$65k full year effect).

<b>2016 Total</b>	<b>217</b>	<b>0</b>	<b>0</b>	<b>217</b>	<b>2.0</b>	
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*Note: Totals may include rounding differences.*

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
Witness: Jeffrey G. Reed  
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Cost Center: 2200-2229.000 - BUSINESS STRATEGY AND DEVELOPMENT

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	303	369
Non-Labor	0	0	0	269	283
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>572</b>	<b>652</b>
FTE	0.0	0.0	0.0	2.6	3.4
<b>Adjustments (Nominal \$) **</b>					
Labor	408	328	348	10	68
Non-Labor	28	224	334	314	191
NSE	0	0	0	0	0
<b>Total</b>	<b>436</b>	<b>552</b>	<b>682</b>	<b>324</b>	<b>260</b>
FTE	3.9	3.0	3.2	0.1	0.8
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	408	328	348	313	437
Non-Labor	28	224	334	583	474
NSE	0	0	0	0	0
<b>Total</b>	<b>436</b>	<b>552</b>	<b>682</b>	<b>895</b>	<b>911</b>
FTE	3.9	3.0	3.2	2.7	4.2
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	71	55	58	50	73
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>71</b>	<b>55</b>	<b>58</b>	<b>50</b>	<b>73</b>
FTE	0.7	0.5	0.5	0.4	0.7
<b>Escalation to 2013\$</b>					
Labor	47	28	18	8	0
Non-Labor	3	16	15	13	0
NSE	0	0	0	0	0
<b>Total</b>	<b>50</b>	<b>44</b>	<b>33</b>	<b>21</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	526	411	424	371	510
Non-Labor	31	241	349	596	474
NSE	0	0	0	0	0
<b>Total</b>	<b>557</b>	<b>652</b>	<b>772</b>	<b>967</b>	<b>984</b>
FTE	4.6	3.5	3.7	3.1	4.9

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

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

Note: Totals may include rounding differences.

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 Witness: Jeffrey G. Reed  
 Category: D. Business Strategy and Development  
 Category-Sub: 1. Business Strategy and Development  
 Cost Center: 2200-2229.000 - BUSINESS STRATEGY AND DEVELOPMENT

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	408	328	348	10	68
Non-Labor	28	224	334	314	191
NSE	0	0	0	0	0
<b>Total</b>	<b>436</b>	<b>552</b>	<b>682</b>	<b>324</b>	<b>260</b>
FTE	3.9	3.0	3.2	0.1	0.8

**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	98	4	0	0.9	CCTR Transf	From 2100-3434.000	CSCHRAMM2013 1111160839487
Transfer labor FTE and non-labor costs associated with Strategic Project Manager roles from SDG&E USS cost center 2100-3434 Planning & Development Director to SoCalGas USS cost center 2200-2229 Business Strategy and Development to align functions where they reside due to re-organization.							
2009	99	4	0	0.9	CCTR Transf	From 2200-2190.000	EPANAMEN2013 1113153426680
Transfer labor FTE and non-labor costs associated with Strategic Project Manager roles from USS cost center 2200-2190 Planning & Development to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast.							
2009	158	21	0	1.5	CCTR Transf	From 2200-2059.000	EPANAMEN2014 0214154136393
Transfer labor FTE and non-labor costs associated with Project Manager, Business Analyst and Administrative Assistant roles from 2200-2059.000 cost center to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast, due to re-organization.							
2009	52	0	0	0.6	CCTR Transf	From 2200-2304.000	EPANAMEN2014 0214154653350
Transfer labor and FTE costs associated with Business Analyst and Administrative Assistant roles from 2200-2304.000 cost center to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast, due to re-organization.							
<b>2009 Total</b>	<b>408</b>	<b>28</b>	<b>0</b>	<b>3.9</b>			

*Note: Totals may include rounding differences.*

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 Cost Center: 2200-2229.000 - BUSINESS STRATEGY AND DEVELOPMENT

<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	126	5	0	1.1	CCTR Transf	From 2100-3434.000	CSCHRAMM2013 1111160929823
Transfer labor FTE and non-labor costs associated with Strategic Project Manager roles from SDG&E USS cost center 2100-3434 Planning & Development Director to SoCalGas USS cost center 2200-2229 Business Strategy and Development to align functions where they reside due to reorganization.							
2010	115	21	0	0.9	CCTR Transf	From 2200-2190.000	EPANAMEN2013 1113153656090
Transfer labor FTE and non-labor costs associated with Strategic Project Manager roles from USS cost center 2200-2190 Planning & Development to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast.							
2010	0	57	0	0.0	CCTR Transf	From 2200-2190.000	EPANAMEN2013 1205092326947
Transfer non-labor costs associated with Strategic Project Manager roles from USS cost center 2200-2190 Planning & Development to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast.							
2010	0	3	0	0.0	CCTR Transf	From 2200-2190.000	EPANAMEN2013 1205092525780
Transfer non-labor costs associated with Strategic Project Manager roles from USS cost center 2200-2190 Planning & Development to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast.							
2010	71	137	0	0.8	CCTR Transf	From 2200-2059.000	EPANAMEN2014 0214155404877
Transfer labor FTE and non-labor costs associated with Business Analyst and Administrative Assistant roles from 2200-2059.000 cost center to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast, due to reorganization.							
2010	17	0	0	0.2	CCTR Transf	From 2200-2304.000	EPANAMEN2014 0214155440287
Transfer labor and FTE costs associated with Business Analyst roles from 2200-2059.000 cost center to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast, due to reorganization.							
<b>2010 Total</b>	<b>328</b>	<b>224</b>	<b>0</b>	<b>3.0</b>			

2011	0	135	0	0.0	CCTR Transf	From 2200-2190.000	EPANAMEN2013 1113160201590
Transfer non-labor costs associated with Strategic Project Manager roles from USS cost center 2200-2190 Planning & Development to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast..							

Note: Totals may include rounding differences.

Southern California Gas Company  
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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: D. Business Strategy and Development  
 Category-Sub: 1. Business Strategy and Development  
 Cost Center: 2200-2229.000 - BUSINESS STRATEGY AND DEVELOPMENT

<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	338	32	0	3.1	CCTR Transf	From 2200-2190.000	EPANAMEN2013 1113160837870
Transfer labor FTE and non-labor costs associated with Strategic Project Manager roles from USS cost center 2200-2190 Planning & Development to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast.							
2011	0	3	0	0.0	CCTR Transf	From 2200-2190.000	EPANAMEN2013 1205092648563
Transfer non-labor costs associated with Strategic Project Manager roles from USS cost center 2200-2190 Planning & Development to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast.							
2011	0	28	0	0.1	CCTR Transf	From 2200-2190.000	EPANAMEN2013 1205092855653
Transfer non-labor costs associated with Strategic Project Manager roles from USS cost center 2200-2190 Planning & Development to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast.							
2011	10	136	0	0.0	CCTR Transf	From 2200-2059.000	EPANAMEN2014 0214155951057
Transfer labor and non-labor costs associated with Project Manager, Business Analyst and Administrative Assistant roles from 2200-2059.000 cost center to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast, due to re-organization.							

<b>2011 Total</b>	<b>348</b>	<b>334</b>	<b>0</b>	<b>3.2</b>			
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2012	0	8	0	0.0	CCTR Transf	From 2200-2190.000	EPANAMEN2013 1113175950970
Transfer non-labor costs associated with Strategic Project Manager roles from USS cost center 2200-2190 Planning & Development to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast.							
2012	0	-0.374	0	0.0	1-Sided Adj	N/A	EPANAMEN2013 1113183722440
Pursuant to CPUC decision 12-12-037 Compression Service Tariff activities are excluded from base rates.							
2012	7	248	0	0.1	CCTR Transf	From 2200-2190.000	EPANAMEN2013 1205093047867
Transfer labor FTE and non-labor costs associated with Strategic Project Manager roles from USS cost center 2200-2190 Planning & Development to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast.							

Note: Totals may include rounding differences.

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Area: CS - TECHNOLOGIES, POLICIES & SOLUTIONS  
 Witness: Jeffrey G. Reed  
 Category: D. Business Strategy and Development  
 Category-Sub: 1. Business Strategy and Development  
 Cost Center: 2200-2229.000 - BUSINESS STRATEGY AND DEVELOPMENT

<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	3	59	0	0.0	CCTR Transf	From 2200-2059.000	EPANAMEN2014 0214160239363
Transfer labor and non-labor costs associated with Business Analyst roles from 2200-2059.000 cost center to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast, due to re-organization.							
<b>2012 Total</b>	<b>10</b>	<b>314</b>	<b>0</b>	<b>0.1</b>			
2013	32	0	0	0.4	CCTR Transf	From 2200-2489.000	CYANO20140220 143858713
Transfer business analyst supporting CS Technology Policy and Solutions function to appropriate witness area, where the cost are being forecast.							
2013	3	95	0	0.0	CCTR Transf	From 2200-2059.000	EPANAMEN2014 0214161007470
Transfer labor and non-labor costs associated with Business Analyst roles from 2200-2059.000 cost center to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast, due to re-organization.							
2013	0	-37	0	0.0	1-Sided Adj	N/A	EPANAMEN2014 0216233627887
Pursuant to CPUC decision 12-12-037 Compression Service Tariff activities are excluded from base rates.							
2013	0	4	0	0.0	CCTR Transf	From 2200-2190.000	EPANAMEN2014 0219120333213
Transfer non-labor costs associated with Strategic Project Manager roles from USS cost center 2200-2190 Planning & Development to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast.							
2013	0	7	0	0.0	CCTR Transf	From 2200-2190.000	EPANAMEN2014 0219120422740
Transfer non-labor costs associated with Strategic Project Manager roles from USS cost center 2200-2190 Planning & Development to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast.							
2013	34	122	0	0.4	CCTR Transf	From 2200-2190.000	EPANAMEN2014 0219120559480
Transfer labor FTE and non-labor costs associated with Strategic Project Manager roles from USS cost center 2200-2190 Planning & Development to USS cost center 2200-2229 Business Strategy and Development to align functions where they reside and will be forecast.							
<b>2013 Total</b>	<b>68</b>	<b>191</b>	<b>0</b>	<b>0.8</b>			

Note: Totals may include rounding differences.

**Supplemental Workpapers for Workpaper 2200-2229.000**

**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 Jeffrey G. Reed**

**(Customer Service Technologies, Policies and Solutions)**

Note 1: For ORA Informal-SDG&E/SOCALGAS-DR-05 and SOCALGAS-ORA-DEF-028-TLG responses, the TY 2016 request was updated to reflect the Application testimony and workpapers.

**ORA INFORMAL DATA REQUEST  
ORA INFORMAL-SDG&E/SOCALGAS-DR-05  
SDG&E/SOCALGAS 2016 GRC – A.14-11-XXX  
SDG&E/SOCALGAS RESPONSE  
DATE RECEIVED: AUGUST 15, 2014  
DATE RESPONDED: AUGUST 20, 2014**

1. Please provide a reference document for all Customer Service witness exhibits, showing the links between the Testimony Exhibit sections, Workpaper Exhibit page numbers, relevant MDR responses, and the cost centers included in each workpaper grouping.

**SDG&E-SoCalGas Response:**

SoCalGas and SDG&E Customer Service witnesses provided roadmaps of all Customer Service witness exhibits, to ORA witness Tamera Godfrey during their meeting in San Francisco on Wednesday, August 20, 2014.

**ORA INFORMAL DATA REQUEST  
ORA INFORMAL-SDG&E/SOCALGAS-DR-05  
SDG&E/SOCALGAS 2016 GRC – A.14-11-XXX  
SDG&E/SOCALGAS RESPONSE  
DATE RECEIVED: AUGUST 15, 2014  
DATE RESPONDED: AUGUST 20, 2014**

2. Please provide summaries for all Customer Service witness O&M requests, by workpaper group, broken out to show the labor and non-labor details, for the years 2009 - 2016.

**SDG&E-SoCalGas Response:**

SoCalGas and SDG&E Customer Service witnesses provided summaries of all Customer Service witness O&M requests, by workpaper group, broken out to show the labor and non-labor details, for the years 2009 – 2016, to ORA witness Tamera Godfrey during their meeting in San Francisco on Wednesday, August 20, 2014.

Functional Area	Testimony Area	Work Paper Group	Ex. SCG-13 Testimony Pages	Ex. SCG-13-WP Workpaper Pages X of 60	MDR Chapter 10 Question #	WP Group FERC Accounts	FERC Allocation %	Cost Centers in Group	Cost Center Name
Customer Service Technologies, Policies and Solutions; Witness: Jeffrey G. Reed									
	Introduction -Section I		JGR-1-4						
	Non-Shared Costs -Section II								
	A.-D. -Research, Development and Demonstration	2RD001.001 - R-RD&D CS Technology Development	JGR-5 - 19	2-11	Q.1-2,4,7; Audit Chap 34, Q.34	930.2	100%	2200-2059	Technology Development
	Appendix A RD&D Summary of Significant Recent Projects		JGR-A-1 - 13						
	Appendix B Technology Needs Assessment Summary		JGR-B-1 - 6						
	Appendix C RD&D Benefit/Cost Analysis Summary		JGR-C-1 - 2						
	Shared Costs (USS) - Section III								
	A. Introduction								
	B. Policy & Environmental Solutions	2200-2288.000 - Environmental Affairs	JGR 20-28	14-21		908.0	100%		
		2200-2396.000 - Policy and Environmental Solutions		22-29		908.0	100%		
	C. Natural Gas Vehicle Program	2200-0234.000 - Natural Gas Vehicle Program	JGR 29-32	30-39		910.0	100%		
					Q.2-8,10	880.0	38%		see "Work Paper Group" section
	D. Biofuels and Low-Carbon Energy Resources Market Development	2200-2286.000 - Biofuels and Low-Carbon Resources Market Development	JGR 33-36	40-49		908.0	62%		
						920.0	61%		
	E. Business Strategy and Development	2200-2229.000 - Business Strategy and Development	JGR 37-38	50-59		921.0	39%		
	Appendix D Glossary of Terms		JGR-D-1 - 2						

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

Witness Name	Jeffrey G. Reed								
Constant 2013\$ in Thousands									
	Adjusted Recorded					Forecast			Workpaper Page
	2009	2010	2011	2012	2013	2014	2015	2016	
SCG									
Exh No:SCG-13-WP									
<b>OM Total</b>	<b>12,869</b>	<b>16,637</b>	<b>17,827</b>	<b>13,675</b>	<b>13,065</b>	<b>17,203</b>	<b>18,306</b>	<b>20,857</b>	
Non-Shared									
2RD001.001 - RD&D CS Technology Development (Refundable)									
Labor	1,182	1,400	1,357	1,447	1,134	1,575	1,575	1,575	
NLbr	8,990	11,264	11,289	6,919	6,945	9,225	9,225	11,140	
NSE	0	0	0	0	0	0	0	0	
2RD001.001 Total	10,172	12,664	12,646	8,366	8,079	10,800	10,800	12,715	Page 6 of 60
Shared Services									
2200-0234.000 - NGV Program									
Labor	676	712	628	620	618	816	1,002	1,111	
NLbr	755	768	839	1,277	815	878	943	1,161	
NSE	0	0	0	0	0	0	0	0	
2200-0234.000 Total	1,431	1,480	1,467	1,897	1,433	1,694	1,945	2,271	Page 32 of 60
2200-2229.000 - Business Strategy and Development									
Labor	526	411	424	370	509	714	727	727	
NLbr	31	241	349	595	473	473	473	473	
NSE	0	0	0	0	0	0	0	0	
2200-2229.000 Total	557	652	773	965	982	1,187	1,200	1,200	Page 52 of 60
2200-2286.000 - Bio-Fuels and Low-Carbon Resources Market Development									
Labor	224	399	357	221	133	415	415	415	
NLbr	58	422	279	112	94	105	250	250	
NSE	0	0	0	0	0	0	0	0	
2200-2286.000 Total	282	821	636	333	227	520	665	665	Page 42 of 60
2200-2288.000 - Environmental Affairs									
Labor	381	383	443	459	529	636	636	636	
NLbr	46	26	76	53	40	118	118	198	
NSE	0	0	0	0	0	0	0	0	
2200-2288.000 Total	427	409	519	512	569	754	754	834	Page 15 of 60
2200-2396.000 - Policy and Environmental Solutions									
Labor		48	235	435	407	880	1,224	1,303	
NLbr		563	1,551	1,167	1,368	1,368	1,718	1,868	
NSE		0	0	0	0	0	0	0	
2200-2396.000 Total		611	1,786	1,602	1,775	2,248	2,942	3,171	Page 23 of 60

Note: Totals may include rounding differences.

**ORA DEFICIENCY DATA REQUEST  
SOCALGAS 2016 GRC – A.14-11-XXX  
SOCALGAS-ORA-DEF-004-TLG  
PARTIAL RESPONSE  
DATE RECEIVED: AUGUST 21, 2014  
DATE RESPONDED: SEPTEMBER 6, 2014**

**Reference:** SCG-10, SCG-11, SCG-12, and SCG-13

**Deficiency:**

B. D.89-01-040 Appendix B, page B-22 item 4 requires SoCalGas to furnish base year historical and estimated data and subsequent years with evaluation of changes up to and including the test year.

SoCalGas needs to:

1. Provide account/line item detail that shows explanations **“and”** a breakdown of the calculation for **“all”** recorded increases/decreases in the last five years for “labor and non-labor” expenses and capital expenditures. In the sections included in SCG-10, SCG-11 SCG-12, and SCG-13, SoCalGas did not provide discussions in its testimony or workpapers on the increases/decreases of the changes in expense levels during the last five years.

**SoCalGas Response:**

Please see separate attachments:

SCG-ORA-DEF-004-TLG-B1-O&M-SCG-10 (Sara Franke)\*  
SCG-ORA-DEF-004-TLG-B1-O&M-SCG-11 (Evan Goldman)  
SCG-ORA-DEF-004-TLG-B1-O&M-SCG-12 (Gwen Marelli)  
**SCG-ORA-DEF-004-TLG-B1-O&M-SCG-13 (Jeffrey Reed)**

\*Response is forthcoming for SCG-ORA-DEF-004-TLG-B1-O&M-SCG-10

Southern California Gas Company  
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ORA Deficiency Data Request  
SoCalGas-ORA-DEF-004-TLG  
Question B.1

Exh No: SCG-13										
Witness Name: Jeffrey Reed										
Constant 2013\$ in Thousands										
	Adjusted Recorded					Variance				Workpaper Page
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13	
2RD001.001 - RD&D CS Technology Development (Refundable)										
Labor	1,182	1,400	1,357	1,447	1,134	218	(43)	90	(313)	
NLbr	8,990	11,264	11,289	6,919	6,945	2,274	25	(4,370)	26	
NSE	0	0	0	0	0	-	-	-	-	
2RD001.001 Total	10,172	12,664	12,646	8,366	8,079	2,492	(18)	(4,280)	(287)	Page 6 of 60
Variance Explanation										
2009-10						Variance Amount				
Labor										
The Research Development and Demonstration (RD&D) program is on a 4 year cycle (2008-2011) with an authorized level of spend. Spending level fluctuates year-to-year based on project timing, mix of internal versus external resources and timing of movement of staff into and out of the department.						218				
NLbr										
The Research Development and Demonstration program is on a 4 year cycle (2008-2011) with an authorized level of spend. Spending level fluctuates year-to-year based on project timing, mix of internal versus external resources and timing of movement of staff into and out of the department.						2,274				
						2,492				
2010-11										
Labor										
The Research Development and Demonstration program is on a 4 year cycle (2008-2011) with an authorized level of spend. Spending level fluctuates year-to-year based on project timing, mix of internal versus external resources and timing of movement of staff into and out of the department.						(43)				
NLbr										
The Research Development and Demonstration program is on a 4 year cycle (2008-2011) with an authorized level of spend. Spending level fluctuates year-to-year based on project timing, mix of internal versus external resources and timing of movement of staff into and out of the department.						25				
						(18)				
2011-12										
Labor										
The Research Development and Demonstration program is on a 4 year cycle (2012-2015) with an authorized level of spend. This was the beginning of the cycle with new authorized level of spend. Spending level fluctuates year-to-year based on project timing, mix of internal versus external resources and timing of movement of staff into and out of the department.						90				
NLbr										
The Research Development and Demonstration program is on a 4 year cycle (2012-2015) with an authorized level of spend. This was the beginning of the cycle with new authorized level of spend. Spending level fluctuates year-to-year based on project timing, variation in the size and co-funding of individual projects and timing of payments to outside parties near year end. 2012 spend was uncharacteristically low because of project start delays due to a delayed GRC decision.						(4,370)				
						(4,280)				
2012-13										
Labor										
The Research Development and Demonstration program is on a 4 year cycle (2012-2015) with an authorized level of spend. Spending level fluctuates year-to-year based on project timing, mix of internal versus external resources and timing of movement of staff into and out of the department.						(313)				
NLbr										
The Research Development and Demonstration program is on a 4 year cycle (2012-2015) with an authorized level of spend. Spending level fluctuates year-to-year based on project timing, variation in the size and co-funding of individual projects and timing of payments to outside parties near year end. 2012 spend was uncharacteristically low because of project start delays due to a delayed GRC decision.						26				
						(287)				

Note: Totals may include rounding differences.

hc - 2RD001.001

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ORA Deficiency Data Request  
SoCalGas-ORA-DEF-004-TLG  
Question B.1

Exh No: SCG-13										
Witness Name: Jeffrey Reed										
Constant 2013\$ in Thousands										
	Adjusted Recorded					Variance				Workpaper Page
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13	
2200-0234.000 - Natural Gas Vehicle (NGV) Program										
Labor	676	712	628	620	618	36	(84)	(8)	(2)	
NLbr	755	768	839	1,277	815	13	71	438	(462)	
NSE	0	0	0	0	0	-	-	-	-	
2200-0234.000 Total	1,431	1,480	1,467	1,897	1,433	49	(13)	430	(464)	Page 32 of 60
Variance Explanation						Variance Amount				
2009-10										
Labor										
The variance is due to the full year salary effect of replacement staff supporting NGV customer outreach (education, information, and training).										
						36				
NLbr										
The fluctuation is relatively flat with no significant change.										
						13				
						49				
2010-11										
Labor										
Decrease due to staff transferring from SoCalGas to SDG&E.										
						(84)				
NLbr										
Timing of billing and payment of outside services around year end and year-to-year variation in spend on customer training, trade events and outside services.										
						71				
						(13)				
2011-12										
Labor										
The fluctuation is relatively flat with no significant change.										
						(8)				
NLbr										
Spending on special programs to promote natural gas as a vehicle fuel, including six demonstration bi-fuel vehicles (collaboration with other utilities), educational and safety videos, and industry memberships. Timing required spending funds intended for 2013.										
						438				
						430				
2012-13										
Labor										
The fluctuation is relatively flat with no significant change.										
						(2)				
NLbr										
Spending on special programs (noted in 2011-2012) completed in previous year. Also, timing of billing and payment of outside services around year end and year-to-year variation in spend on outside expert support based on project phasing and schedule.										
						(462)				
						(464)				

Note: Totals may include rounding differences.

hc - SS 2200-0234

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ORA Deficiency Data Request  
SoCalGas-ORA-DEF-004-TLG  
Question B.1

Exh No: SCG-13										
Witness Name: Jeffrey Reed										
Constant 2013\$ in Thousands										
	Adjusted Recorded					Variance				Workpaper Page
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13	
2200-2229.000 - Business Strategy and Development										
Labor	526	411	424	370	509	(115)	13	(54)	139	
NLbr	31	241	349	595	473	210	108	246	(122)	
NSE	0	0	0	0	0	-	-	-	-	
2200-2229.000 Total	557	652	773	965	982	95	121	192	17	Page 52 of 60
Variance Explanation						Variance Amount				
2009-10										
Labor										
Staff contract and budgeting support position moved to the Research Development and Demonstration program.										
						(115)				
NLbr										
The increase is related to an organizational change between the utility shared service cost centers for this function. As leadership changed from SDG&E to SoCalGas, the expense location for a portion of industry information services and external expert services was moved from SDG&E to SoCalGas. In addition, timing of billing and payment at year end and year-to-year variation in spending for outside expert support based on project phasing and schedule.						210				
						95				
2010-11										
Labor										
The fluctuation is relatively flat with no significant change.										
						13				
NLbr										
Timing of billing and payment of outside services around year end and year-to-year variation in spend on outside expert support based on project phasing and schedule.						108				
						121				
2011-12										
Labor										
Timing of backfilling of a position.										
						(54)				
NLbr										
Timing of billing and payment of outside services around year end and year-to-year variation in spend on outside expert support based on project phasing and schedule.						246				
						192				
2012-13										
Labor										
Full year effect of replacement of one project manager and transfer of one project manager position from SDG&E to SoCalGas.						139				
NLbr										
Timing of billing and payment of outside services around year end and year-to-year variation in spend on outside expert support based on project phasing and schedule.						(122)				
						17				

Note: Totals may include rounding differences.

hc - SS 2200-2229

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ORA Deficiency Data Request  
SoCalGas-ORA-DEF-004-TLG  
Question B.1

Exh No: SCG-13										
Witness Name: Jeffrey Reed										
Constant 2013\$ in Thousands										
	Adjusted Recorded					Variance				Workpaper Page
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13	
2200-2286.000 - Bio-Fuels and Low-Carbon Resources Market Development										
Labor	224	399	357	221	133	175	(42)	(136)	(88)	
NLbr	58	422	279	112	94	364	(143)	(167)	(18)	
NSE		0	0	0		-	-	-	-	
2200-2286.000 Total	282	821	636	333	227	539	(185)	(303)	(106)	Page 42 of 60
Variance Explanation						Variance Amount				
2009-10										
Labor										
The variance is due to increase in staff to promote increased development and utilization of biogas resources.										
						175				
NLbr										
The spending increase is due to consulting cost related to biogas studies spent in 2010.										
						364				
						539				
2010-11										
Labor										
The variance is due to staff turnover in concert with diminished levels of project development activity caused by uncertainty regarding gas quality standards due to be developed pursuant to AB1900 and to the suspension of directed biogas as a qualified renewable energy resource.										
						(42)				
NLbr										
The variance is due to diminished levels of project development activity caused by uncertainty regarding gas quality standards due to be developed pursuant to AB1900 and to the suspension of directed biogas as a qualified renewable energy resource.										
						(143)				
						(185)				
2011-12										
Labor										
The variance is due to staff turnover in concert with diminished levels of project development activity caused by uncertainty regarding gas quality standards due to be developed pursuant to AB1900 and to the suspension of directed biogas as a qualified renewable energy resource.										
						(136)				
NLbr										
The variance is due to diminished levels of project development activity caused by uncertainty regarding gas quality standards due to be developed pursuant to AB1900 and to the suspension of directed biogas as a qualified renewable energy resource.										
						(167)				
						(303)				
2012-13										
Labor										
The variance is due to staff turnover in concert with diminished levels of project development activity caused by uncertainty regarding gas quality standards due to be developed pursuant to AB1900 and to the suspension of directed biogas as a qualified renewable energy resource.										
						(88)				
NLbr										
The variance is due to diminished levels of project development activity caused by uncertainty regarding gas quality standards due to be developed pursuant to AB1900 and to the suspension of directed biogas as a qualified renewable energy resource.										
						(18)				
						(106)				

Note: Totals may include rounding differences.

hc - SS 2200-2286

Southern California Gas Company  
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ORA Deficiency Data Request  
SoCalGas-ORA-DEF-004-TLG  
Question B.1

Exh No: SCG-13										
Witness Name: Jeffrey Reed										
Constant 2013\$ in Thousands										
	Adjusted Recorded					Variance				Workpaper Page
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13	
2200-2288.000 - Environmental Affairs										
Labor	381	383	443	459	529	2	60	16	70	
NLbr	46	26	76	53	40	(20)	50	(23)	(13)	
NSE	0	0	0	0	0	-	-	-	-	
2200-2288.000 Total	427	409	519	512	569	(18)	110	(7)	57	Page 15 of 60
Variance Explanation					Variance Amount					
2009-10										
Labor										
The variance is relatively flat with no significant change.										
					2					
NLbr										
Year-to-year fluctuation in employee expenses and use of outside services.										
					(20)					
					(18)					
2010-11										
Labor										
The variance is due to the transfer of staff from SDG&E to SoCalGas to provide policy guidance and analysis on proposed legislation and regulations related to energy and environmental matters.										
					60					
NLbr										
Staff transfers and year-to-year fluctuation in employee expenses and use of outside services.										
					50					
					110					
2011-12										
Labor										
The variance is due to the full year salary effect of staff to provide policy guidance and analysis on proposed legislation and regulations related to energy and environmental matters.										
					16					
NLbr										
Year-to-year fluctuation in employee expenses and use of outside services.										
					(23)					
					(7)					
2012-13										
Labor										
The variance is due to increase in staff to provide policy guidance and analysis on proposed legislation and regulations related to energy and environmental matters.										
					70					
NLbr										
Year-to-year fluctuation in employee expenses and use of outside services.										
					(13)					
					57					

Note: Totals may include rounding differences.

hc - SS 2200-2288

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ORA Deficiency Data Request  
SoCalGas-ORA-DEF-004-TLG  
Question B.1

Exh No: SCG-13										
Witness Name: Jeffrey Reed										
Constant 2013\$ in Thousands										
	Adjusted Recorded					Variance				Workpaper Page
	2009	2010	2011	2012	2013	2009-10	2010-11	2011-12	2012-13	
2200-2396.000 - Policy and Environmental Solutions										
Labor		48	235	435	407	48	187	200	(28)	
NLbr		563	1,551	1,167	1,368	563	988	(384)	201	
NSE		0	0	0	0	-	-	-	-	
2200-2396.000 Total		611	1,786	1,602	1,775	611	1,175	(184)	173	Page 23 of 60
Variance Explanation						Variance Amount				
2009-10										
Labor										
This function was established in 2010.										
						48				
NLbr										
This function was established in 2010.										
						563				
						611				
2010-11										
Labor										
Timing of staff increase for customer support related to energy and environmental policies, laws and regulations.										
						187				
NLbr										
Increased use of outside services to evaluate region-wide air emissions impacts of alternative scenarios for emissions reductions.										
						988				
						1,175				
2011-12										
Labor										
Timing of staff increase for customer support related to energy and environmental policies, laws and regulations.										
						200				
NLbr										
Timing of services related to state and federal agency policy analysis, engagement, outreach, and customer support related to existing and proposed state and federal policies, laws and regulations concerning natural gas utilization.										
						(384)				
						(184)				
2012-13										
Labor										
The fluctuation is relatively flat with no significant change.										
						(28)				
NLbr										
Timing of services related to state and federal agency policy analysis, engagement, outreach, and customer support related to existing and proposed state and federal policies, laws and regulations concerning natural gas utilization.										
						201				
						173				

Note: Totals may include rounding differences.

hc - SS 2200-2396

**ORA DEFICIENCY DATA REQUEST  
SOCALGAS 2016 GRC – A.14-11-XXX  
SOCALGAS-ORA-DEF-028-TLG**

**PARTIAL RESPONSE**

**DATE RECEIVED: SEPTEMBER 3, 2014**

**DATE RESPONDED: SEPTEMBER 12, 2014**

**Deficiency Item #:** SCG-DEF-028-TLG

**Reference:** SCG-10, SCG-11, SCG-12, and SCG-13

**Deficiency:**

A. D.89-01-040 Appendix B, page B-21 item 5 requires SoCalGas to provide complete explanations of exhibits and special studies. Items 6 require SoCalGas to provide workpapers that show the calculation and documentation supporting the exhibits. The workpapers are also required to be arranged in an orderly sequence and be appropriately indexed and cross referenced. Appendix B, page B-21 item B requires SoCalGas to “Show the derivation of each individual estimate” that is included in the Test Year forecast. Number B-7 on page B-22 requires that SoCalGas’ “Supporting material must have a clear tieback to base data from the stated expenditure”.

SoCalGas needs to:

1. Provide complete and detailed explanations “**and**” a breakdown of the calculation for “**all**” forecast estimates, including detail on expected positions (i.e., provide all line item detail included in the calculation of the costs). SoCalGas needs to show complete explanations, calculations and documentations to support Test Year forecasts. For example in Exhibit SCG-12 pp. 2 through 9 of the workpapers SoCalGas requests an increase of \$7.556 million for Non-Shared expenses, an increase of 44.29% over 2013 expenses, yet SoCalGas did not provide the detailed documentation or the breakdown of each individual estimate included in the calculation for the requested increase of \$7.562 million. There are similar problems with lacking full explanations and documentation and workpapers failing to show the calculations for forecast in SCG-10, SCG-11, SCG-12, and SCG-13 (note that workpapers are arranged in a similar manner) that are too burdensome to mention.
2. Provide the detailed discussion on Test Year forecast in testimony as well as the associated calculations in workpapers showing the derivation of each individual estimate included in the forecast that is proposed to increase expenses over 2013 recorded expenses (the requested data should be provided for figures included in tables that are similar to the table on page 2 of workpapers and GRM-iii of testimony in SCG-12). Note that SoCalGas includes lump sum numbers and summarizes the expenses (for example see Table 5 on page GRM-18, Table 6 on page GRM-26, Table 8 on page GRM-34, and

**ORA DEFICIENCY DATA REQUEST  
SOCALGAS 2016 GRC – A.14-11-XXX  
SOCALGAS-ORA-DEF-028-TLG**

**PARTIAL RESPONSE**

**DATE RECEIVED: SEPTEMBER 3, 2014**

**DATE RESPONDED: SEPTEMBER 12, 2014**

Table 18 on page GRM-70 in SCG-12) but does not provide any documentation that demonstrates specifically how each of these costs and individual line items included in the forecast were calculated (also see workpapers pp. 7-9 in SCG-12 as an example).

**ORA DEFICIENCY DATA REQUEST  
SOCALGAS 2016 GRC – A.14-11-XXX  
SOCALGAS-ORA-DEF-028-TLG**

**PARTIAL RESPONSE**

**DATE RECEIVED: SEPTEMBER 3, 2014**

**DATE RESPONDED: SEPTEMBER 12, 2014**

**Question 1A (Continued)**

3. Provide the associated calculation and supporting documentation on the specifics of how the forecasts were determined/basis for numbers.

**SoCalGas Response:**

Please see separate attachments as consolidated responses for A.1, A.2, and A.3 in one file per witness exhibit as described below:

SCG-ORA-DEF-028-TLG-SCG-10 (Sara Franke)\*  
SCG-ORA-DEF-028-TLG-SCG-11 (Evan Goldman)  
SCG-ORA-DEF-028-TLG-SCG-12 (Gwen Marelli)  
SCG-ORA-DEF-028-TLG-SCG-13 (Jeffrey Reed)

\*Response is forthcoming for SCG-ORA-DEF-028-TLG-SCG-10

Southern California Gas Company  
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ORA Deficiency  
SCG-ORA-DEF-028-TLG-SCG-13  
Summary

Witness Name	Jeff Reed					
Constant 2013\$ in Thousands	Base Year Adjusted Recorded 2013	Test Year Request 2016	Incremental Request	Testimony Pages	Workpaper Page	
SCG						
Exh No:SCG-13-WP						
<b>OM Total</b>	<b>13,066</b>	<b>20,857</b>	<b>7,791</b>			
<b>NSS</b>	<b>8,080</b>	<b>12,715</b>	<b>4,635</b>			
2RD001.001 - RD&D CS Technology Development (Refundable)						
Labor	1,135	1,575	440			
NLbr	6,946	11,140	4,194			
NSE	0	0	0			
2RD001.001 Total	8,080	12,715	4,635	JGR-6		Page 6 of 60
<b>USS</b>	<b>4,986</b>	<b>8,142</b>	<b>3,156</b>			
Category - Policy & Environmental Solutions						
2200-2288.000 - Environmental Affairs						
Labor	530	637	107			
NLbr	41	199	158			
NSE	0	0	0			
2200-2288.000 Sub-total	570	836	266	JGR-20		Page 15 of 60
2200-2396.000 - Policy and Environmental Solutions						
Labor	407	1,303	896			
NLbr	1,367	1,867	500			
NSE	0	0	0			
2200-2396.000 Sub-total	1,774	3,170	1,396	JGR-20		Page 25 of 60
Policy & Environmental Solutions Total	2,344	4,006	1,662	JGR-20		Page 13 of 60
2200-0234.000 - NGV Program						
Labor	618	1,111	493			
NLbr	815	1,161	346			
NSE	0	0	0			
2200-0234.000 Total	1,432	2,271	839	JGR-29		Page 32 of 60
2200-2286.000 - Bio-Fuels and Low-Carbon Resources Market Development						
Labor	133	415	282			
NLbr	94	250	156			
NSE	0	0	0			
2200-2286.000 Total	226	665	439	JGR-33		Page 42 of 60
2200-2229.000 - Business Strategy and Development						
Labor	510	727	217			
NLbr	474	474	0			
NSE	0	0	0			
2200-2229.000 Total	984	1,201	217	JGR-37		Page 54 of 60

**Note: Totals may include rounding differences.**

QRA Delivery  
SCG-QRA-APP-GRC-13-SCG-13  
Details by Workgroup

Testimony	Testimony Page #	Workpaper Group	Workpaper Page #	Forecast Methodology	Work Group Name	Cost Driver	Total (\$000)	Labour (\$000)	Non-Labour (\$000)	NSE	FTE	Notes
II A	JGR-5-7	2RD001.001	6-7	Testimony pg. 7 and Workpaper pg. 5	R-RD&D CS Technology Development		4,635	440	4,194	-	4	<p>Labour: The RD&amp;D program forecasts an increase of 4.4 full-time equivalents (FTEs) in TY2016 relative to BY2011 at an incremental cost of \$9.44 million (average salary range per FTE is \$100K annually). The increase reflects the addition of 1.5 FTEs in the operations area to focus on gas quality analysis and testing for various new renewable natural gas and hydrogen resources and increased participation in industry and research collaborative committee meetings and events. The remaining 2.9 FTEs increment is composed of one staff member added in early 2014 to focus on renewable natural gas and low carbon resources, one staff member addition to focus on low-emission transportation solutions and 0.4 FTEs related to full-year staffing of a vacancy resulting from a 2013 retirement and additional part-time hours charged to the program for commercial support (budget, contracts, and transactions).</p> <p>Non-Labour: The difference in non-labour is created by normal year-to-year spending variation during the program cycle and by incremental project work as described in testimony, JGR 5-8. The difference between 2013 non-labour expense and the program cycle average of \$8,100 is attributable to normal year-to-year spending variations related to project timing and payment schedules. The remaining difference between the 2012-2015 program cycle average spend and the TY 2016 expense is attributable to incremental request changes in planned project activity as described in testimony, JGR 15-18. The year-to-year incremental change related to the program cycle average of \$1,154 and the incremental request related to changes in planned project activities of \$3,040 add to the 4 BY 2013 to TY 2016 non-labour difference of \$4,194.</p>
<b>Total Non-Shared Services</b>							<b>4,635</b>	<b>440</b>	<b>4,194</b>	<b>-</b>	<b>4</b>	
III B	JGR-20	2200-2288	17-18	Testimony pg. 23 and Workpaper pg. 15	Policy and Environmental Solutions-Environmental Affairs	Full year salary effect for CARB project manager and employee expense to support Air Agency Liaison & Customer Support	137	107	30	-	0.9	<p>Labour: CARB Manager: 0.9 FTE (full year effect \$107K). Non-Labour: Increased travel for employees to Sacramento for meetings with ARB. The group has picked up primary contact responsibilities with ARB staff requiring more travel to Sacramento for meetings and workshops held by the agency. The type of engagement at ARB requires more technical air quality expertise. Average employee expense per FTE is \$10K and the increase of \$4K for all FTEs.</p>
		2200-2288			Policy and Environmental Solutions-Environmental Affairs	External support for analysis and studies on policies and regulations to support Air Agency Liaison & Customer Support	128		128			<p>Estimates are based on prior experience and judgment. Non-Labour: Engineering &amp; environmental support needed for customers to understand impact related to AQMP:SP and ARS2 (estimate \$128K).</p>
	JGR-20	2200-2396	25-26	Testimony pg. 23 and Workpaper pg. 23	Policy and Environmental Solutions-P&ES	Staff to support Energy & Environmental Policy	556	556			5.3	<p>Labour: 2 policy advisor at \$109K &amp; 95%L, 1 energy advisor at \$105K, and 1 administrative assistant annual salary \$66K. 7 FTE manager hired in July 2014 (full year effect \$104K) and 3 FTE advisor (full year effect \$77K).</p>
		2200-2396			Policy and Environmental Solutions-P&ES	Staff to support Legislative Analysis & Public Policy	340	340			3.0	<p>Labour: 1 manager hired in 2014 at \$125K; 2 advisors (1 hired in 2014 at \$105K; 1 planned in 2015 at \$110K) annual salary.</p>
		2200-2396			Policy and Environmental Solutions	Support increase employee related costs and increased use of external expert resources to support policy analysis and customer compliance matters.	500		500			<p>Non-Labour: Estimates are based on prior experience and judgment. External support for AQMP analysis \$140K, science-based analytical studies \$120K, environmental and opinion leader research \$50K, 4 annual environmental dialogue sessions \$50K, and multi-stakeholder material \$15K. Employee expense is based on employee average \$10K (8 FTE x \$10K = \$80K).</p>
<b>Sub-Total Policy and Environmental Solutions</b>							<b>1,661</b>	<b>1,603</b>	<b>658</b>	<b>-</b>	<b>9.2</b>	
III C	JGR-29	2200-6234	35-36	Testimony pg. 30-31 and Workpaper pg. 32	Natural Gas Vehicle Program	Staff to support Natural Gas Vehicle Program and employee expense	577	493	84	-	5	<p>Labour: 2 account executives at \$83K (2 x \$83K = \$166K) and 3 market advisors at \$109K (3 x \$109K = \$327K). Non-Labour: Employee expense is based on employee average \$16.8K (5 FTE x \$16.8K = \$84K).</p>
		2200-6234			Natural Gas Vehicle Program	External support to assist with customer outreach which includes the development and delivery of customer information, education, training and facilitation of customer new service requests for transportation applications.	262		262			<p>Non-Labour: Estimates are based on prior cost, experience and judgment - commuter and BIA market education and outreach program costs of \$52K, natural gas vehicle off-road cost of \$52K, Low Carbon Fuel Standard Administration, education and outreach cost of \$48K and customer safety training courses cost of \$10K.</p>
<b>Sub-Total Natural Gas Vehicle Program</b>							<b>839</b>	<b>493</b>	<b>346</b>	<b>-</b>	<b>5</b>	
III D	JGR-33	2200-2286	45-46	Testimony pg. 35 and Workpaper pg. 42	Biofeed & Low-Carbon Resources Market Development	Staff to support Biofeed & Low-Carbon Resources Market Development	317	282	35	-	3	<p>Labour: Manager's labor shifted from non GRC program to GRC of 37K, 1 FTE project manager at \$105K, 1 project manager at \$85K and 3 FTE direct at \$07K. Non-Labour: Employee travel expense is based on employee average of \$10K each (\$10K x 3 = 3.0 FTE = \$30K).</p>
		2200-2286			Biofeed & Low-Carbon Resources Market Development	External engineering support to assist with market assessment and evaluation of commercial technologies	121		121			<p>Non-labour: Industry experts and consulting firms are utilized to conduct general market assessment studies - \$60K per year. Engineering studies to evaluate various technological options - \$60K. Estimates are based on a two-year average historical spend in 2010 and 2011. As stated in Testimony, SoCalGas expects to see similar types of activity levels as it did when the biogas program was fully staffed in 2010 and 2011. These amounts are incremental over 2013 base year.</p>
<b>Sub-Total Biofeed &amp; Low-Carbon Resources Market Development</b>							<b>438</b>	<b>282</b>	<b>156</b>	<b>-</b>	<b>3</b>	
III E	JGR-37	2200-2229	54	Testimony pg. 38 and Workpaper pg. 52	Business Strategy and Development	Staff to support Business Strategy and Development	217	217			2	<p>Labour: 1 Manager at \$152K annual salary and 1 analyst at \$65K annual salary.</p>
<b>Sub-Total Business Strategy and Development</b>							<b>217</b>	<b>217</b>	<b>-</b>	<b>-</b>	<b>2</b>	
<b>Total Shared Services</b>							<b>3,105</b>	<b>1,713</b>	<b>1,004</b>	<b>-</b>	<b>16</b>	
<b>Total NNS + USN</b>							<b>7,790</b>	<b>2,153</b>	<b>5,198</b>	<b>-</b>	<b>21</b>	

Note: Totals may include rounding differences.

ORA Deficiency  
 SCG-ORA-DEF-028-TLG-SCG-13  
 SCG CS Tech, Pol & Sol

Functional Area	Testimony Area	Work Paper Group	Ex. SCG-13 Testimony Pages	Ex. SCG-13-WP Workpaper Pages X of 60	MDR Chapter 10 Question #	WP Group FERC Accounts	FERC Allocation %	Cost Centers in Group	Cost Center Name
Customer Service Technologies, Policies and Solutions; Witness: Jeffrey G. Reed									
	Introduction -Section I Non-Shared Costs -Section II		JGR-1-4						
	A.-D. -Research, Development and Demonstration Appendix A RD&D Summary of Significant Recent Projects Appendix B Technology Needs Assessment Summary Appendix C RD&D Benefit/Cost Analysis Summary	2RD001.001 - R-RD&D CS Technology Development	JGR-5 - 19 JGR-A-1 - 13 JGR-B-1 - 6 JGR-C-1 - 2	2-11	Q.1-2,4,7; Audit Chap 34, Q.34	930.2	100%	2200-2059	Technology Development
	Shared Costs (USS) - Section III A. Introduction B. Policy & Environmental Solutions C. Natural Gas Vehicle Program D. Biofuels and Low-Carbon Energy Resources Market Development E. Business Strategy and Development	2200-2288.000 - Environmental Affairs 2200-2396.000 - Policy and Environmental Solutions 2200-0234.000 - Natural Gas Vehicle Program 2200-2286.000 - Biofuels and Low-Carbon Resources Market Development 2200-2229.000 - Business Strategy and Development	JGR 20-28 JGR 29-32 JGR 33-36 JGR 37-38	13-21 22-29 30-39 40-49 50-59	Q.2-8,10	908.0 908.0 910.0 880.0 908.0 920.0 921.0	100% 100% 100% 38% 62% 61% 39%		see "Work Paper Group" section
	Appendix D Glossary of Terms		JGR-D-1 - 2						

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

Area:

Witness:

**Appendix A: List of Non-Shared Cost Centers**

<u>Cost Center</u>	<u>Sub</u>	<u>Description</u>
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