

Application of SAN DIEGO GAS & ELECTRIC )  
COMPANY for authority to update its gas and )  
electric revenue requirement and base rates )  
effective January 1, 2016 (U 902-M) )

Application No. 14-11-003

Exhibit No.: (SDG&E-19-WP-R-Amended)

AMENDED  
REVISED WORKPAPERS TO  
PREPARED DIRECT TESTIMONY  
OF STEPHEN J. MIKOVITS  
ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA

MAY 2015



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

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**Overall Summary For Exhibit No. SDG&E-19-WP-R**

<b>Area:</b>	<b>INFORMATION TECHNOLOGY</b>
<b>Witness:</b>	<b>Stephen J. Mikovits</b>

Description	In 2013 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
<b>Non-Shared Services</b>	13,931	15,693	15,384	18,188
<b>Shared Services</b>	76,025	75,358	82,362	90,925
<b>Total</b>	<b>89,956</b>	<b>91,051</b>	<b>97,746</b>	<b>109,113</b>

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits

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

Description	In 2013 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
A. Applications	12,479	13,158	14,349	17,153
B. Infrastructure	224	224	224	224
C. Information Security	159	159	159	159
D. IT Support	1,069	2,152	652	652
<b>Total</b>	<b>13,931</b>	<b>15,693</b>	<b>15,384</b>	<b>18,188</b>

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Workpaper: 1IT001.000

**Summary for Category: A. Applications**

	In 2013\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	8,705	8,805	9,739	10,772
Non-Labor	3,774	4,353	4,610	6,381
NSE	0	0	0	0
<b>Total</b>	<b>12,479</b>	<b>13,158</b>	<b>14,349</b>	<b>17,153</b>
FTE	90.7	91.7	101.0	111.3

**Workpapers belonging to this Category:**

**1IT001.000 IT Applications NSS**

Labor	8,705	8,805	9,739	10,772
Non-Labor	3,774	4,353	4,610	6,381
NSE	0	0	0	0
<b>Total</b>	<b>12,479</b>	<b>13,158</b>	<b>14,349</b>	<b>17,153</b>
FTE	90.7	91.7	101.0	111.3

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**1IT001.000 - IT Applications NSS**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Workpaper: 1IT001.000 - IT Applications NSS

**Activity Description:**

This work group represents all the non-shared application costs for SDG&E, including customer care, SDGE field operations development, and other SDGE non-shared applications and related support.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		7,243	7,042	6,499	8,225	8,705	8,805	9,739	10,772	
Non-Labor		2,268	2,094	2,157	2,459	3,774	4,353	4,610	6,381	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>9,510</b>	<b>9,136</b>	<b>8,656</b>	<b>10,684</b>	<b>12,479</b>	<b>13,158</b>	<b>14,349</b>	<b>17,153</b>	
FTE		76.3	75.6	71.5	90.2	90.7	91.7	101.0	111.3	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Workpaper: 1IT001.000 - IT Applications NSS

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	8,705	8,705	8,705	100	1,034	2,067	8,805	9,739	10,772
Non-Labor	Base YR Rec	3,774	3,774	3,774	579	836	2,607	4,353	4,610	6,381
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>12,479</b>	<b>12,479</b>	<b>12,479</b>	<b>679</b>	<b>1,870</b>	<b>4,674</b>	<b>13,158</b>	<b>14,349</b>	<b>17,153</b>
FTE	Base YR Rec	90.7	90.7	90.7	1.0	10.3	20.6	91.7	101.0	111.3

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	100	100	0	200	1.0	1-Sided Adj

Operating and Maintenance expenses related to CISCO replacement Business Case Preparation.

Assumes 6 to 10 contractors would backfill for internal Subject Matter Experts (SMEs) assigned to core project team. Assumes non-negotiated vendor pricing for 3rd party consultants to assist core project team.

2014	0	479	0	479	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

<b>2014 Total</b>	<b>100</b>	<b>579</b>	<b>0</b>	<b>679</b>	<b>1.0</b>	
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2015	123	20	0	143	1.2	1-Sided Adj
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2.25 incremental FTEs to support new IT initiatives across the company in 2015 and in 2016. Assumes 56% O&C ratio and \$100k average salary plus \$10k per employee (2 employees) in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Workpaper: 1IT001.000 - IT Applications NSS

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2015	317	30	0	347	3.2	1-Sided Adj

6.3 FTEs at \$100k plus \$10k per employee in associated NL costs, added across 2015 and 2016.

4 FTEs for primary & secondary support positions for CPD and Powerworks, (2 headcount each, 100% O&C labor ratio). The remaining 2.3 FTEs are estimated to support the expansion of the IT Associate program (6 headcount, 38% O&C labor ratio).

2015	200	100	0	300	2.0	1-Sided Adj
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Operating and Maintenance expenses related to CISCO replacement Business Case Preparation.

Assumes 6 to 10 contractors would backfill for internal Subject Matter Experts (SMEs) assigned to core project team. Assumes non-negotiated vendor pricing for 3rd party consultants to assist core project team.

2015	0	646	0	646	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

2015	394	40	0	434	3.9	1-Sided Adj
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7.9 O&M FTEs at \$100k per employee and \$10k per employee in associated NL costs (8 employees) split across 2015 and 2016. Support includes 1 admin, 2 CRM developers, 1 CEN developer, 3 SPP analysts, and an additional FTE supporting additional production systems implemented via recently completed capital projects.

<b>2015 Total</b>	<b>1,034</b>	<b>836</b>	<b>0</b>	<b>1,870</b>	<b>10.3</b>	
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2016	123	20	0	143	1.2	1-Sided Adj
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Workpaper: 1IT001.000 - IT Applications NSS

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>
<p>2.25 incremental FTEs to support new IT initiatives across the company in 2015 and in 2016. Assumes 56% O&amp;C ratio and \$100k average salary plus \$10k per employee (2 employees) in associated NL costs.</p> <p>Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&amp;C labor ratio for the base year.</p>						
2016	634	60	0	694	6.3	1-Sided Adj
<p>6.3 FTEs at \$100k plus \$10k per employee in associated NL costs, added across 2015 and 2016.</p> <p>4 FTEs for primary &amp; secondary support positions for CPD and Powerworks, (2 headcount each, 100% O&amp;C labor ratio). The remaining 2.3 FTEs are estimated to support the expansion of the IT Associate program (6 headcount, 38% O&amp;C labor ratio).</p>						
2016	123	20	0	143	1.2	1-Sided Adj
<p>2.25 incremental FTEs to support new IT initiatives across the company in 2015 and in 2016. Assumes 56% O&amp;C ratio and \$100k average salary plus \$10k per employee (2 employees) in associated NL costs.</p> <p>Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&amp;C labor ratio for the base year.</p>						
2016	400	1,600	0	2,000	4.0	1-Sided Adj
<p>Operating and Maintenance expenses related to CISCO replacement Business Case Preparation.</p> <p>Assumes 6 to 10 contractors would backfill for internal Subject Matter Experts (SMEs) assigned to core project team. Assumes non-negotiated vendor pricing for 3rd party consultants to assist core project team.</p>						
2016	0	827	0	827	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 &amp; 2016 escalation based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.</p>						

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
 2016 GRC - REVISED  
 Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Workpaper: 1IT001.000 - IT Applications NSS

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>
2016	787	80	0	867	7.9	1-Sided Adj

7.9 O&M FTEs at \$100k per employee and \$10k per employee in associated NL costs (8 employees) split across 2015 and 2016. Support includes 1 admin, 2 CRM developers, 1 CEN developer, 3 SPP analysts, and an additional FTE supporting additional production systems implemented via recently completed capital projects.

<b>2016 Total</b>	<b>2,067</b>	<b>2,607</b>	<b>0</b>	<b>4,674</b>	<b>20.6</b>	
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Workpaper: 1IT001.000 - IT Applications NSS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	5,509	5,457	5,581	7,107	7,534
Non-Labor	2,047	1,931	2,073	2,641	4,265
NSE	0	0	0	0	0
<b>Total</b>	<b>7,556</b>	<b>7,388</b>	<b>7,654</b>	<b>9,748</b>	<b>11,799</b>
FTE	62.5	62.0	62.9	79.0	77.4
<b>Adjustments (Nominal \$) **</b>					
Labor	269	255	-139	-75	-20
Non-Labor	5	7	3	-220	-492
NSE	0	0	0	0	0
<b>Total</b>	<b>274</b>	<b>262</b>	<b>-136</b>	<b>-295</b>	<b>-512</b>
FTE	2.9	2.5	-1.5	-1.3	-0.2
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	5,778	5,713	5,442	7,032	7,513
Non-Labor	2,052	1,938	2,076	2,421	3,774
NSE	0	0	0	0	0
<b>Total</b>	<b>7,829</b>	<b>7,650</b>	<b>7,518</b>	<b>9,453</b>	<b>11,287</b>
FTE	65.4	64.5	61.4	77.7	77.2
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	892	909	802	1,019	1,192
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>892</b>	<b>909</b>	<b>802</b>	<b>1,019</b>	<b>1,192</b>
FTE	10.9	11.2	10.1	12.6	13.5
<b>Escalation to 2013\$</b>					
Labor	573	420	255	174	0
Non-Labor	216	156	81	38	0
NSE	0	0	0	0	0
<b>Total</b>	<b>789</b>	<b>576</b>	<b>336</b>	<b>212</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	7,243	7,042	6,499	8,225	8,705
Non-Labor	2,268	2,094	2,157	2,459	3,774
NSE	0	0	0	0	0
<b>Total</b>	<b>9,510</b>	<b>9,136</b>	<b>8,656</b>	<b>10,684</b>	<b>12,479</b>
FTE	76.3	75.7	71.5	90.3	90.7

\* 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.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Workpaper: 1IT001.000 - IT Applications NSS

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	269	255	-139	-75	-20
Non-Labor	5	7	3	-220	-492
NSE	0	0	0	0	0
<b>Total</b>	<b>274</b>	<b>262</b>	<b>-136</b>	<b>-295</b>	<b>-512</b>
FTE	2.9	2.5	-1.5	-1.3	-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	304	3	0	3.8	CCTR Transf	From 2100-0019.000	CSCHRAMM2013 1107221220710
Transfer labor, FTE, and non-labor costs associated with IT Tech Support function from cost center 2100-0019 in Work Paper Group 10O007 CCC Support to cost center 2100-0642 in Work Paper Group 1IT001 Information Technology to align function where activity resides.							
2009	232	5	0	1.8	CCTR Transf	From 2100-3611.000	CSCHRAMM2013 1107221601690
Transfer labor, FTE, and non-labor costs associated with IT Tech Manager function from cost center 2100-0019 in Work Paper Group 10O007 CCC Support to cost center 2100-0642 in Work Paper Group 1IT001 Information Technology to align function where activity resides.							
2009	-35	-3	0	-0.4	1-Sided Adj	N/A	LBROUGH201311 05164557723
IT employee transfer from SDGE to SCG, 2IT001							
2009	-232	0	0	-2.3	1-Sided Adj	N/A	LBROUGH201312 04104017257
Transfer of 4 employees to SCG Gas Ops, Wkpaper 2SP000. 4 x 100k x 58% O&M = \$232k							
<b>2009 Total</b>	<b>269</b>	<b>5</b>	<b>0</b>	<b>2.9</b>			

2010	298	12	0	3.5	CCTR Transf	From 2100-0019.000	CSCHRAMM2013 1107221328560
Transfer labor, FTE, and non-labor costs associated with IT Tech Support function from cost center 2100-0019 in Work Paper Group 10O007 CCC Support to cost center 2100-0642 in Work Paper Group 1IT001 Information Technology to align function where activity resides.							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Workpaper: 1IT001.000 - IT Applications NSS

<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	226	6	0	1.7	CCTR Transf	From 2100-3611.000	CSCHRAMM2013 1107221705560
Transfer labor, FTE, and non-labor costs associated with IT Tech Manager function from cost center 2100-0019 in Work Paper Group 100007 CCC Support to cost center 2100-0642 in Work Paper Group 1IT001 Information Technology to align function where activity resides.							
2010	-35	-3	0	-0.4	1-Sided Adj	N/A	LBROUGH201311 05164645730
IT employee transfer from SDGE to SCG, 2IT001							
2010	-232	0	0	-2.3	1-Sided Adj	N/A	LBROUGH201312 04104051257
Transfer of 4 employees to SCG Gas Ops, Wkpaper 2SP000. 4 x 100k x 58% O&M = \$232k							
2010	-2	-8	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 131659140
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							

<b>2010 Total</b>	<b>255</b>	<b>7</b>	<b>0</b>	<b>2.5</b>			
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2011	163	7	0	1.7	CCTR Transf	From 2100-0019.000	CSCHRAMM2013 1107221427490
Transfer labor, FTE, and non-labor costs associated with IT Tech Support function from cost center 2100-0019 in Work Paper Group 100007 CCC Support to cost center 2100-0642 in Work Paper Group 1IT001 Information Technology to align function where activity resides.							
2011	6	0.506	0	0.1	CCTR Transf	From 2100-3611.000	CSCHRAMM2013 1107221831967
Transfer labor, FTE, and non-labor costs associated with IT Tech Manager function from cost center 2100-0019 in Work Paper Group 100007 CCC Support to cost center 2100-0642 in Work Paper Group 1IT001 Information Technology to align function where activity resides.							
2011	-35	-3	0	-0.4	1-Sided Adj	N/A	LBROUGH201311 05164723943
IT employee transfer from SDGE to SCG, 2IT001							
2011	-232	0	0	-2.3	1-Sided Adj	N/A	LBROUGH201312 04104123227
Transfer of 4 employees to SCG Gas Ops, Wkpaper 2SP000. 4 x 100k x 58% O&M = \$232k							
2011	-42	-2	0	-0.6	1-Sided Adj	N/A	TP1JMY20150526 132906030
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							

Note: Totals may include rounding differences.



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Workpaper: 1IT001.000 - IT Applications NSS

<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>-139</b>	<b>3</b>	<b>0</b>	<b>-1.5</b>			
2012	-35	-3	0	-0.4	1-Sided Adj	N/A	LBROUGH201311 05164848587
IT employee transfer from SDGE to SCG, 2IT001							
2012	-40	-3	0	-0.9	1-Sided Adj	N/A	LBROUGH201311 05165048623
IT employee transfer from SDGE to SCG, 2200-2496							
2012	0	-214	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 133200817
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2012 Total</b>	<b>-75</b>	<b>-220</b>	<b>0</b>	<b>-1.3</b>			
2013	-20	-492	0	-0.2	1-Sided Adj	N/A	TP1JMY20150526 133426037
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2013 Total</b>	<b>-20</b>	<b>-492</b>	<b>0</b>	<b>-0.2</b>			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Workpaper: 1IT002.000

**Summary for Category: B. Infrastructure**

	In 2013\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	223	223	223	223
Non-Labor	1	1	1	1
NSE	0	0	0	0
<b>Total</b>	<b>224</b>	<b>224</b>	<b>224</b>	<b>224</b>
FTE	2.1	2.1	2.1	2.1

**Workpapers belonging to this Category:**

**1IT002.000 IT Infrastructue NSS**

Labor	223	223	223	223
Non-Labor	1	1	1	1
NSE	0	0	0	0
<b>Total</b>	<b>224</b>	<b>224</b>	<b>224</b>	<b>224</b>
FTE	2.1	2.1	2.1	2.1

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**1IT002.000 - IT Infrastructure NSS**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Workpaper: 1IT002.000 - IT Infrastructue NSS

**Activity Description:**

This work group supports non-shared network telecommunications and other infrastructure expenses for SDGE.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		770	41	53	333	223	223	223	223	
Non-Labor		39	8	0	18	1	1	1	1	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>809</b>	<b>50</b>	<b>53</b>	<b>350</b>	<b>224</b>	<b>224</b>	<b>224</b>	<b>224</b>	
FTE		9.8	1.0	0.8	3.0	2.1	2.1	2.1	2.1	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Workpaper: 1IT002.000 - IT Infrastructure NSS

**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	223	223	223	0	0	0	223	223	223
Non-Labor	Base YR Rec	1	1	1	0	0	0	1	1	1
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>224</b>	<b>224</b>	<b>224</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>224</b>	<b>224</b>	<b>224</b>
FTE	Base YR Rec	2.1	2.1	2.1	0.0	0.0	0.0	2.1	2.1	2.1

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Workpaper: 1IT002.000 - IT Infrastructure NSS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	727	146	157	397	192
Non-Labor	38	11	3	20	1
NSE	0	0	0	0	0
<b>Total</b>	<b>765</b>	<b>156</b>	<b>160</b>	<b>417</b>	<b>193</b>
FTE	9.2	1.6	1.5	3.4	1.8
<b>Adjustments (Nominal \$) **</b>					
Labor	-112	-112	-112	-112	0
Non-Labor	-3	-3	-3	-3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-115</b>	<b>-115</b>	<b>-115</b>	<b>-115</b>	<b>0</b>
FTE	-0.8	-0.8	-0.8	-0.8	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	614	34	44	284	192
Non-Labor	35	8	0	17	1
NSE	0	0	0	0	0
<b>Total</b>	<b>650</b>	<b>41</b>	<b>44</b>	<b>302</b>	<b>193</b>
FTE	8.4	0.8	0.7	2.6	1.8
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	95	5	7	41	31
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>95</b>	<b>5</b>	<b>7</b>	<b>41</b>	<b>31</b>
FTE	1.4	0.1	0.1	0.4	0.3
<b>Escalation to 2013\$</b>					
Labor	61	2	2	7	0
Non-Labor	4	1	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>65</b>	<b>3</b>	<b>2</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	770	41	53	333	223
Non-Labor	39	8	0	18	1
NSE	0	0	0	0	0
<b>Total</b>	<b>809</b>	<b>50</b>	<b>53</b>	<b>350</b>	<b>224</b>
FTE	9.8	0.9	0.8	3.0	2.1

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Workpaper: 1IT002.000 - IT Infrastructure NSS

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-112	-112	-112	-112	0
Non-Labor	-3	-3	-3	-3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-115</b>	<b>-115</b>	<b>-115</b>	<b>-115</b>	<b>0</b>
FTE	-0.8	-0.8	-0.8	-0.8	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	-112	-3	0	-0.8	1-Sided Adj	N/A	LBROUGH201311 06090424747
IT employee xfers from SDGE to SCG 2IT002.							
<b>2009 Total</b>	<b>-112</b>	<b>-3</b>	<b>0</b>	<b>-0.8</b>			
2010	-112	-3	0	-0.8	1-Sided Adj	N/A	LBROUGH201311 06090518323
IT employee xfers from SDGE to SCG 2IT002.							
<b>2010 Total</b>	<b>-112</b>	<b>-3</b>	<b>0</b>	<b>-0.8</b>			
2011	-112	-3	0	-0.8	1-Sided Adj	N/A	LBROUGH201311 06090600670
IT employee xfers from SDGE to SCG 2IT002.							
<b>2011 Total</b>	<b>-112</b>	<b>-3</b>	<b>0</b>	<b>-0.8</b>			
2012	-112	-3	0	-0.8	1-Sided Adj	N/A	LBROUGH201311 06090648600
IT employee xfers from SDGE to SCG 2IT002.							
<b>2012 Total</b>	<b>-112</b>	<b>-3</b>	<b>0</b>	<b>-0.8</b>			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Workpaper: 1IT002.000 - IT Infrastructure NSS

<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>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Workpaper: 1IT004.000

**Summary for Category: C. Information Security**

	In 2013\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	109	109	109	109
Non-Labor	50	50	50	50
NSE	0	0	0	0
<b>Total</b>	<u>159</u>	<u>159</u>	<u>159</u>	<u>159</u>
FTE	1.1	1.1	1.1	1.1

**Workpapers belonging to this Category:**

**1IT004.000 Information Security NSS**

Labor	109	109	109	109
Non-Labor	50	50	50	50
NSE	0	0	0	0
<b>Total</b>	<u>159</u>	<u>159</u>	<u>159</u>	<u>159</u>
FTE	1.1	1.1	1.1	1.1

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**1IT004.000 - Information Security NSS**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Workpaper: 1IT004.000 - Information Security NSS

**Activity Description:**

This work group includes all the non-shared IT Information Security charges, including regulatory compliance work as it relates to IT security.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	186	109	109	109	109	
Non-Labor		0	0	0	32	50	50	50	50	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>218</b>	<b>159</b>	<b>159</b>	<b>159</b>	<b>159</b>	
FTE		0.0	0.0	0.0	1.9	1.1	1.1	1.1	1.1	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Workpaper: 1IT004.000 - Information Security NSS

**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	109	109	109	0	0	0	109	109	109
Non-Labor	Base YR Rec	50	50	50	0	0	0	50	50	50
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>159</b>	<b>159</b>	<b>159</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>159</b>	<b>159</b>	<b>159</b>
FTE	Base YR Rec	1.1	1.1	1.1	0.0	0.0	0.0	1.1	1.1	1.1

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Workpaper: 1IT004.000 - Information Security NSS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	159	94
Non-Labor	0	0	0	32	50
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>191</b>	<b>144</b>
FTE	0.0	0.0	0.0	1.6	0.9
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	159	94
Non-Labor	0	0	0	32	50
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>191</b>	<b>144</b>
FTE	0.0	0.0	0.0	1.6	0.9
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	23	15
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>15</b>
FTE	0.0	0.0	0.0	0.3	0.2
<b>Escalation to 2013\$</b>					
Labor	0	0	0	4	0
Non-Labor	0	0	0	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	186	109
Non-Labor	0	0	0	32	50
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>218</b>	<b>159</b>
FTE	0.0	0.0	0.0	1.9	1.1

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Workpaper: 1IT004.000 - Information Security NSS

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Workpaper: 1IT003.000

**Summary for Category: D. IT Support**

	In 2013\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	385	468	468	468
Non-Labor	684	1,684	184	184
NSE	0	0	0	0
<b>Total</b>	<b>1,069</b>	<b>2,152</b>	<b>652</b>	<b>652</b>
FTE	3.0	3.0	3.0	3.0

**Workpapers belonging to this Category:**

**1IT003.000 IT Support**

Labor	385	468	468	468
Non-Labor	684	1,684	184	184
NSE	0	0	0	0
<b>Total</b>	<b>1,069</b>	<b>2,152</b>	<b>652</b>	<b>652</b>
FTE	3.0	3.0	3.0	3.0

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**1IT003.000 - IT Support**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Workpaper: 1IT003.000 - IT Support

**Activity Description:**

This work group contains all other IT support services, including the capital business optimization program, construction planning and design (CPD) work, and other miscellaneous IT charges.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		1,927	1,937	1,186	523	385	468	468	468	
Non-Labor		2,358	2,493	2,310	2,722	684	1,684	184	184	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>4,285</b>	<b>4,429</b>	<b>3,496</b>	<b>3,245</b>	<b>1,069</b>	<b>2,152</b>	<b>652</b>	<b>652</b>	
FTE		19.4	24.2	11.6	4.8	3.0	3.0	3.0	3.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Workpaper: 1IT003.000 - IT Support

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	385	385	385	83	83	83	468	468	468
Non-Labor	Base YR Rec	684	684	684	1,000	-500	-500	1,684	184	184
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>1,069</b>	<b>1,069</b>	<b>1,069</b>	<b>1,083</b>	<b>-417</b>	<b>-417</b>	<b>2,152</b>	<b>652</b>	<b>652</b>
FTE	Base YR Rec	3.0	3.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0

**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	83	1,000	0	1,083	0.0	1-Sided Adj

Capital Business Optimization Program - one-time increase of \$1,000k from base year in 2014, then decreases by \$500k from base year in 2015 and 2016 for consulting services.  
Labor support - Program started mid way through 2013, therefore incremental \$83k to cover annual O&M spend for 2 employees, assuming an O&C ratio of 73%, which continues into 2015 and 2016.

<b>2014 Total</b>	<b>83</b>	<b>1,000</b>	<b>0</b>	<b>1,083</b>	<b>0.0</b>	
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2015	83	-500	0	-417	0.0	1-Sided Adj
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Capital Business Optimization Program - one-time increase of \$1,000k from base year in 2014, then decreases by \$500k from base year in 2015 and 2016 for consulting services.  
Labor support - Program started mid way through 2013, therefore incremental \$83k to cover annual O&M spend for 2 employees, assuming an O&C ratio of 73%, which continues into 2015 and 2016.

<b>2015 Total</b>	<b>83</b>	<b>-500</b>	<b>0</b>	<b>-417</b>	<b>0.0</b>	
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2016	83	-500	0	-417	0.0	1-Sided Adj
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Capital Business Optimization Program - one-time increase of \$1,000k from base year in 2014, then decreases by \$500k from base year in 2015 and 2016 for consulting services.  
Labor support - Program started mid way through 2013, therefore incremental \$83k to cover annual O&M spend for 2 employees, assuming an O&C ratio of 73%, which continues into 2015 and 2016.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Workpaper: 1IT003.000 - IT Support

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
<b>2016 Total</b>	<b>83</b>	<b>-500</b>	<b>0</b>	<b>-417</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Workpaper: 1IT003.000 - IT Support

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	2,032	2,172	1,554	1,520	1,609
Non-Labor	638	4,573	224	9,991	1,669
NSE	0	0	0	0	0
<b>Total</b>	<b>2,670</b>	<b>6,745</b>	<b>1,778</b>	<b>11,511</b>	<b>3,279</b>
FTE	20.6	25.6	14.9	14.7	14.8
<b>Adjustments (Nominal \$) **</b>					
Labor	-495	-601	-561	-1,073	-1,277
Non-Labor	1,496	-2,266	2,000	-7,311	-985
NSE	0	0	0	0	0
<b>Total</b>	<b>1,001</b>	<b>-2,867</b>	<b>1,439</b>	<b>-8,384</b>	<b>-2,262</b>
FTE	-4.0	-5.0	-4.9	-10.5	-12.3
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	1,537	1,571	993	447	332
Non-Labor	2,134	2,307	2,224	2,680	684
NSE	0	0	0	0	0
<b>Total</b>	<b>3,671</b>	<b>3,878</b>	<b>3,216</b>	<b>3,127</b>	<b>1,017</b>
FTE	16.6	20.6	10.0	4.2	2.5
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	237	250	146	65	53
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>237</b>	<b>250</b>	<b>146</b>	<b>65</b>	<b>53</b>
FTE	2.8	3.6	1.6	0.7	0.4
<b>Escalation to 2013\$</b>					
Labor	152	115	47	11	0
Non-Labor	224	186	86	43	0
NSE	0	0	0	0	0
<b>Total</b>	<b>377</b>	<b>301</b>	<b>133</b>	<b>54</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	1,927	1,937	1,186	523	385
Non-Labor	2,358	2,493	2,310	2,722	684
NSE	0	0	0	0	0
<b>Total</b>	<b>4,285</b>	<b>4,429</b>	<b>3,496</b>	<b>3,245</b>	<b>1,069</b>
FTE	19.4	24.2	11.6	4.9	2.9

\* 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.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Workpaper: 1IT003.000 - IT Support

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-495	-601	-561	-1,073	-1,277
Non-Labor	1,496	-2,266	2,000	-7,311	-985
NSE	0	0	0	0	0
<b>Total</b>	<b>1,001</b>	<b>-2,867</b>	<b>1,439</b>	<b>-8,384</b>	<b>-2,262</b>
FTE	-4.0	-5.0	-4.9	-10.5	-12.3

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
2009	0	1,521	0	0.0	1-Sided Adj	N/A	LBROUGH201311 05152558700
Reversal of credit related to cost centers 2100-3172 & 2100-3339 for IT Inventory Adjustments.							
2009	-495	-25	0	-4.0	1-Sided Adj	N/A	LBROUGH201405 15161346787
Transfer of CPD costs from 1IT003 to 2100-3713 as part of IT reorg and to align with reorganization.							
<b>2009 Total</b>	<b>-495</b>	<b>1,496</b>	<b>0</b>	<b>-4.0</b>			
2010	0	-2,149	0	0.0	1-Sided Adj	N/A	LBROUGH201311 05152710553
Adjustment of IT Inventory balancing account for cost centers 2100-3172 and 2100-3339							
2010	0	-25	0	0.0	CCTR Transf	To 2100-3064.000	LBROUGH201402 27152956327
Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013)							
2010	-495	-25	0	-4.0	1-Sided Adj	N/A	LBROUGH201405 15161302000
Transfer of CPD costs from 1IT003 to 2100-3713 as part of IT reorg and to align with reorganization.							
2010	-106	-67	0	-1.0	1-Sided Adj	N/A	TP1JMY20150526 132021737
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Workpaper: 1IT003.000 - IT Support

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From Cctr</u>	<u>RefID</u>
<b>2010 Total</b>	<b>-601</b>	<b>-2,266</b>	<b>0</b>	<b>-5.0</b>			
2011	0	2,214	0	0.0	1-Sided Adj	N/A	LBROUGH201311 05152759987
Adjustment of IT Inventory balancing account credit for cost centers 2100-3172 and 2100-3339							
2011	-66	-189	0	-0.9	CCTR Transf	To 2100-3064.000	LBROUGH201402 27152907963
Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013)							
2011	-495	-25	0	-4.0	1-Sided Adj	N/A	LBROUGH201405 15161237933
Transfer of CPD costs from 1IT003 to 2100-3713 as part of IT reorg and to align with reorganization.							
<b>2011 Total</b>	<b>-561</b>	<b>2,000</b>	<b>0</b>	<b>-4.9</b>			
2012	0	-5,984	0	0.0	1-Sided Adj	N/A	LBROUGH201311 05152838510
Adjustment of IT Inventory balancing account for cost centers 2100-3172 and 2100-3339							
2012	-574	-1,262	0	-6.5	CCTR Transf	To 2100-3067.000	LBROUGH201402 27152306670
Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013)							
2012	-4	-40	0	0.0	CCTR Transf	To 2100-3604.000	LBROUGH201402 27155929367
Transfer of the O&M portion of IT CPD costs to SDGE Electric Distribution wkgrp 1ED013							
2012	-495	-25	0	-4.0	1-Sided Adj	N/A	LBROUGH201405 15161212877
Transfer of CPD costs from 1IT003 to 2100-3713 as part of IT reorg and to align with 2014 budget.							
<b>2012 Total</b>	<b>-1,073</b>	<b>-7,311</b>	<b>0</b>	<b>-10.5</b>			
2013	-488	-818	0	-5.3	CCTR Transf	To 2100-3064.000	LBROUGH201402 27151439333
Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013)							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
 2016 GRC - REVISED  
 Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Workpaper: 1IT003.000 - IT Support

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From Cctr</u>	<u>RefID</u>
2013	-294	-142	0	-3.0	CCTR Transf	To 2100-3604.000	LBROUGH201402 27155703640
Transfer of the O&M portion of IT CPD costs to SDGE Electric Distribution (wkgrp 1ED013)							
2013	-495	-25	0	-4.0	1-Sided Adj	N/A	LBROUGH201405 15161129497
Transfer of CPD costs from 1IT003 to 2100-3713 as part of IT reorg.							
<b>2013 Total</b>	<b>-1,277</b>	<b>-985</b>	<b>0</b>	<b>-12.3</b>			

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits

**Summary of Shared Services Workpapers:**

Description	In 2013 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
A. Applications	18,517	18,705	20,412	24,924
B. Infrastructure	48,614	47,361	51,295	55,048
C. Information Security	3,586	3,949	5,312	5,610
D. IT Support	5,308	5,343	5,343	5,343
<b>Total</b>	<b>76,025</b>	<b>75,358</b>	<b>82,362</b>	<b>90,925</b>

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Cost Center: VARIOUS

**Summary for Category: A. Applications**

	In 2013\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	8,659	8,659	9,284	9,910
Non-Labor	9,857	10,045	11,127	15,013
NSE	0	0	0	0
<b>Total</b>	<b>18,516</b>	<b>18,704</b>	<b>20,411</b>	<b>24,923</b>
FTE	80.8	80.8	87.0	93.3

**Cost Centers belonging to this Category:**

**2100-3071.000 SAP ACCOUNTING & FINANCIAL SYSTEMS**

Labor	1,219	1,219	1,219	1,219
Non-Labor	74	74	74	74
NSE	0	0	0	0
<b>Total</b>	<b>1,293</b>	<b>1,293</b>	<b>1,293</b>	<b>1,293</b>
FTE	11.1	11.1	11.1	11.1

**2100-3072.000 SUPPLY CHAIN & LOGISTICS SYSTEMS**

Labor	606	606	606	606
Non-Labor	302	302	302	302
NSE	0	0	0	0
<b>Total</b>	<b>908</b>	<b>908</b>	<b>908</b>	<b>908</b>
FTE	5.6	5.6	5.6	5.6

**2100-3073.000 ENTERPRISE INTEGRATION SERVICES**

Labor	774	774	774	774
Non-Labor	168	168	168	168
NSE	0	0	0	0
<b>Total</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>942</b>
FTE	7.5	7.5	7.5	7.5

**2100-3074.000 SSDS PROJECT OFFICE**

Labor	262	262	262	262
Non-Labor	29	29	29	29
NSE	0	0	0	0
<b>Total</b>	<b>291</b>	<b>291</b>	<b>291</b>	<b>291</b>
FTE	2.2	2.2	2.2	2.2

**2100-3076.000 CORPORATE SYSTEMS**

Labor	1,317	1,317	1,317	1,317
Non-Labor	7	7	7	7
NSE	0	0	0	0
<b>Total</b>	<b>1,324</b>	<b>1,324</b>	<b>1,324</b>	<b>1,324</b>
FTE	13.1	13.1	13.1	13.1

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Cost Center: VARIOUS

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

**2100-3079.000 SCG CUSTOMER CARE PROJECT OFFICE**

Labor	33	33	33	33
Non-Labor	30	30	30	30
NSE	0	0	0	0
<b>Total</b>	<b>63</b>	<b>63</b>	<b>63</b>	<b>63</b>
FTE	0.3	0.3	0.3	0.3

**2100-3080.000 MAJOR MARKETS & CUSTOMER SELF SERVICE**

Labor	2	2	2	2
Non-Labor	16	16	16	16
NSE	0	0	0	0
<b>Total</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>
FTE	0.0	0.0	0.0	0.0

**2100-3082.000 SCG CUSTOMER INFORMATION SYSTEMS**

Labor	-3	-3	-3	-3
Non-Labor	53	53	53	53
NSE	0	0	0	0
<b>Total</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>
FTE	0.0	0.0	0.0	0.0

**2100-3083.000 SCG CUSTOMER FIELD**

Labor	-2	-2	-2	-2
Non-Labor	0	0	0	0
NSE	0	0	0	0
<b>Total</b>	<b>-2</b>	<b>-2</b>	<b>-2</b>	<b>-2</b>
FTE	0.0	0.0	0.0	0.0

**2100-3086.000 CUSTOMER ASSISTANCE AND RELATIONSHIP**

Labor	485	485	485	485
Non-Labor	298	298	298	298
NSE	0	0	0	0
<b>Total</b>	<b>783</b>	<b>783</b>	<b>783</b>	<b>783</b>
FTE	4.6	4.6	4.6	4.6

**2100-3087.000 UTILITY OPS SW DEVELOP SERVICES DIRECTOR**

Labor	375	375	556	737
Non-Labor	27	27	57	87
NSE	0	0	0	0
<b>Total</b>	<b>402</b>	<b>402</b>	<b>613</b>	<b>824</b>
FTE	3.0	3.0	4.8	6.6

**2100-3088.000 SOFTWARE DEV - WORK MEAS SYSTEMS**

Labor	158	158	158	158
Non-Labor	30	30	30	30
NSE	0	0	0	0
<b>Total</b>	<b>188</b>	<b>188</b>	<b>188</b>	<b>188</b>
FTE	1.6	1.6	1.6	1.6

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Cost Center: VARIOUS

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

**2100-3089.000 BUSINESS INTELLIGENCE GROUP**

Labor	772	772	772	772
Non-Labor	221	221	221	221
NSE	0	0	0	0
<b>Total</b>	<b>993</b>	<b>993</b>	<b>993</b>	<b>993</b>
FTE	7.3	7.3	7.3	7.3

**2100-3091.000 SOFTWARE DEV - DATABASE ADMINISTRATOR**

Labor	1,299	1,299	1,299	1,299
Non-Labor	3,069	3,257	3,683	4,752
NSE	0	0	0	0
<b>Total</b>	<b>4,368</b>	<b>4,556</b>	<b>4,982</b>	<b>6,051</b>
FTE	11.0	11.0	11.0	11.0

**2100-3093.000 SOFTWARE DEV - WORK MEAS & ELECTRIC SYST**

Labor	546	546	546	546
Non-Labor	469	469	469	469
NSE	0	0	0	0
<b>Total</b>	<b>1,015</b>	<b>1,015</b>	<b>1,015</b>	<b>1,015</b>
FTE	5.6	5.6	5.6	5.6

**2100-3102.000 INFRASTRUCTURE ENG & OPS DIRECTOR**

Labor	263	263	641	1,020
Non-Labor	24	24	64	104
NSE	0	0	0	0
<b>Total</b>	<b>287</b>	<b>287</b>	<b>705</b>	<b>1,124</b>
FTE	2.1	2.1	5.8	9.6

**2100-3623.000 SHARED SOFTWARE DEVELOPMENT CONTRACTS**

Labor	0	0	0	0
Non-Labor	4,954	4,954	5,350	8,092
NSE	0	0	0	0
<b>Total</b>	<b>4,954</b>	<b>4,954</b>	<b>5,350</b>	<b>8,092</b>
FTE	0.0	0.0	0.0	0.0

**2100-3754.000 CUSTOMER CARE PROJECT OFFICE**

Labor	1	1	1	1
Non-Labor	5	5	5	5
NSE	0	0	0	0
<b>Total</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>
FTE	0.0	0.0	0.0	0.0

**2100-3846.000 SCG APPS MAJOR MARKET APP**

Labor	-5	-5	-5	-5
Non-Labor	11	11	11	11
NSE	0	0	0	0
<b>Total</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>
FTE	0.0	0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Cost Center: VARIOUS

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

**2100-3848.000 CUSTOMER ANALYTICS SYSTEM**

Labor	124	124	124	124
Non-Labor	6	6	6	6
NSE	0	0	0	0
<b>Total</b>	<b>130</b>	<b>130</b>	<b>130</b>	<b>130</b>
FTE	1.1	1.1	1.1	1.1

**2100-3905.000 ENTERPRISE MODELING TEST TEAM**

Labor	18	18	18	18
Non-Labor	0	0	0	0
NSE	0	0	0	0
<b>Total</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>
FTE	0.2	0.2	0.2	0.2

**2100-4001.000 Collaboration Services**

Labor	415	415	481	547
Non-Labor	64	64	254	259
NSE	0	0	0	0
<b>Total</b>	<b>479</b>	<b>479</b>	<b>735</b>	<b>806</b>
FTE	4.5	4.5	5.2	5.9

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3071.000 - SAP ACCOUNTING & FINANCIAL SYSTEMS**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3071.000 - SAP ACCOUNTING & FINANCIAL SYSTEMS

**Activity Description:**

This cost center is responsible for maintenance, enhancements and application security for SAP and non-SAP financial systems. Business Units supported include SDGE, SoCal Gas and Sempra Corporate Center.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		1,300	1,008	764	1,022	1,219	1,219	1,219	1,219	
Non-Labor		116	93	162	180	74	74	74	74	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1,416</b>	<b>1,101</b>	<b>926</b>	<b>1,201</b>	<b>1,293</b>	<b>1,293</b>	<b>1,293</b>	<b>1,293</b>	
FTE		12.9	9.8	7.3	9.5	11.1	11.1	11.1	11.1	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3071.000 - SAP ACCOUNTING & FINANCIAL SYSTEMS

**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	23	0	0	23	0.10	23	0	0	23	0.10
Directly Allocated	0	0	0	0	0.00	0	0	0	0	-0.01
Subj. To % Alloc.	1,197	74	0	1,271	11.00	1,197	74	0	1,271	11.00
<b>Total Incurred</b>	<b>1,220</b>	<b>74</b>	<b>0</b>	<b>1,294</b>	<b>11.10</b>	<b>1,220</b>	<b>74</b>	<b>0</b>	<b>1,294</b>	<b>11.09</b>
<b>% Allocation</b>										
Retained	36.44%	36.44%				37.00%	37.00%			
SEU	45.94%	45.94%				47.00%	47.00%			
CORP	17.62%	17.62%				16.00%	16.00%			
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	23	0	0	23	0.10	23	0	0	23	0.10
Directly Allocated	0	0	0	0	-0.01	0	0	0	0	-0.01
Subj. To % Alloc.	1,197	74	0	1,271	11.00	1,197	74	0	1,271	11.00
<b>Total Incurred</b>	<b>1,220</b>	<b>74</b>	<b>0</b>	<b>1,294</b>	<b>11.09</b>	<b>1,220</b>	<b>74</b>	<b>0</b>	<b>1,294</b>	<b>11.09</b>
<b>% Allocation</b>										
Retained	37.00%	37.00%				37.00%	37.00%			
SEU	47.00%	47.00%				47.00%	47.00%			
CORP	16.00%	16.00%				16.00%	16.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3071.000 - SAP ACCOUNTING & FINANCIAL SYSTEMS

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

**Cost Center Allocation Percentage for 2013**

Allocations are based on a labor study of all applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

**Cost Center Allocation Percentage for 2014**

Allocations are based on a labor study of all applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

**Cost Center Allocation Percentage for 2015**

Allocations are based on a labor study of all applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

**Cost Center Allocation Percentage for 2016**

Allocations are based on a labor study of all applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3071.000 - SAP ACCOUNTING & FINANCIAL SYSTEMS

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	1,219	1,219	1,219	0	0	0	1,219	1,219	1,219
Non-Labor	Base YR Rec	74	74	74	0	0	0	74	74	74
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>1,293</b>	<b>1,293</b>	<b>1,293</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,293</b>	<b>1,293</b>	<b>1,293</b>
FTE	Base YR Rec	11.1	11.1	11.1	0.0	0.0	0.0	11.1	11.1	11.1

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3071.000 - SAP ACCOUNTING & FINANCIAL SYSTEMS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	1,029	812	641	877	1,052
Non-Labor	106	87	156	177	74
NSE	0	0	0	0	0
<b>Total</b>	<b>1,135</b>	<b>899</b>	<b>797</b>	<b>1,054</b>	<b>1,126</b>
FTE	11.0	8.4	6.3	8.1	9.4
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	1,029	812	641	877	1,052
Non-Labor	106	87	156	177	74
NSE	0	0	0	0	0
<b>Total</b>	<b>1,135</b>	<b>899</b>	<b>797</b>	<b>1,054</b>	<b>1,126</b>
FTE	11.0	8.4	6.3	8.1	9.4
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	159	129	94	127	167
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>159</b>	<b>129</b>	<b>94</b>	<b>127</b>	<b>167</b>
FTE	1.8	1.5	1.0	1.3	1.7
<b>Escalation to 2013\$</b>					
Labor	113	67	29	17	0
Non-Labor	10	6	6	3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>123</b>	<b>73</b>	<b>35</b>	<b>20</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	1,300	1,008	764	1,022	1,219
Non-Labor	116	93	162	180	74
NSE	0	0	0	0	0
<b>Total</b>	<b>1,416</b>	<b>1,101</b>	<b>926</b>	<b>1,201</b>	<b>1,293</b>
FTE	12.8	9.9	7.3	9.4	11.1

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3071.000 - SAP ACCOUNTING & FINANCIAL SYSTEMS

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3072.000 - SUPPLY CHAIN & LOGISTICS SYSTEMS**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3072.000 - SUPPLY CHAIN & LOGISTICS SYSTEMS

**Activity Description:**

This cost center supports system-wide Supply Chain & Logistics Applications for the Utilities and Corporate Center.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		441	680	365	600	606	606	606	606	
Non-Labor		524	399	311	575	302	302	302	302	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>965</b>	<b>1,079</b>	<b>676</b>	<b>1,175</b>	<b>908</b>	<b>908</b>	<b>908</b>	<b>908</b>	
FTE		4.3	7.1	3.6	5.4	5.6	5.6	5.6	5.6	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3072.000 - SUPPLY CHAIN & LOGISTICS SYSTEMS

**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	1	0	1	0.00	0	1	0	1	0.01
Directly Allocated	77	16	0	93	0.75	77	16	0	93	0.75
Subj. To % Alloc.	529	286	0	815	4.87	529	286	0	815	4.87
<b>Total Incurred</b>	<b>606</b>	<b>303</b>	<b>0</b>	<b>909</b>	<b>5.62</b>	<b>606</b>	<b>303</b>	<b>0</b>	<b>909</b>	<b>5.63</b>
<b>% Allocation</b>										
Retained	38.25%	38.25%				38.08%	38.08%			
SEU	60.96%	60.96%				58.32%	58.32%			
CORP	0.79%	0.79%				3.60%	3.60%			
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	1	0	1	0.01	0	1	0	1	0.01
Directly Allocated	77	16	0	93	0.75	77	16	0	93	0.75
Subj. To % Alloc.	529	286	0	815	4.87	529	286	0	815	4.87
<b>Total Incurred</b>	<b>606</b>	<b>303</b>	<b>0</b>	<b>909</b>	<b>5.63</b>	<b>606</b>	<b>303</b>	<b>0</b>	<b>909</b>	<b>5.63</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3072.000 - SUPPLY CHAIN & LOGISTICS SYSTEMS

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

**Cost Center Allocation Percentage for 2013**

The percentage calculation assumptions are based on the total number of LAN login ID's for SDGE, SCG and parent. This cost center provides database administration services for all SDGE, SCG and parent employees. Using LAN login ID counts for each respective company accurately determines the use of services by each company.

**Cost Center Allocation Percentage for 2014**

The percentage calculation assumptions are based on the total number of LAN login ID's for SDGE, SCG and parent. This cost center provides database administration services for all SDGE, SCG and parent employees. Using LAN login ID counts for each respective company accurately determines the use of services by each company.

**Cost Center Allocation Percentage for 2015**

The percentage calculation assumptions are based on the total number of LAN login ID's for SDGE, SCG and parent. This cost center provides database administration services for all SDGE, SCG and parent employees. Using LAN login ID counts for each respective company accurately determines the use of services by each company.

**Cost Center Allocation Percentage for 2016**

The percentage calculation assumptions are based on the total number of LAN login ID's for SDGE, SCG and parent. This cost center provides database administration services for all SDGE, SCG and parent employees. Using LAN login ID counts for each respective company accurately determines the use of services by each company.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3072.000 - SUPPLY CHAIN & LOGISTICS SYSTEMS

**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	606	606	606	0	0	0	606	606	606
Non-Labor	Base YR Rec	302	302	302	0	0	0	302	302	302
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>908</b>	<b>908</b>	<b>908</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>908</b>	<b>908</b>	<b>908</b>
FTE	Base YR Rec	5.6	5.6	5.6	0.0	0.0	0.0	5.6	5.6	5.6

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3072.000 - SUPPLY CHAIN & LOGISTICS SYSTEMS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	595	795	553	823	523
Non-Labor	494	388	314	583	302
NSE	0	0	0	0	0
<b>Total</b>	<b>1,089</b>	<b>1,183</b>	<b>867</b>	<b>1,406</b>	<b>825</b>
FTE	6.3	8.6	5.7	7.7	4.8
<b>Adjustments (Nominal \$) **</b>					
Labor	-247	-248	-247	-308	0
Non-Labor	-15	-15	-15	-18	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-262</b>	<b>-263</b>	<b>-262</b>	<b>-326</b>	<b>0</b>
FTE	-2.6	-2.6	-2.6	-3.1	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	349	548	307	515	523
Non-Labor	479	373	299	565	302
NSE	0	0	0	0	0
<b>Total</b>	<b>828</b>	<b>920</b>	<b>606</b>	<b>1,081</b>	<b>825</b>
FTE	3.7	6.0	3.1	4.6	4.8
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	54	87	45	75	83
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>54</b>	<b>87</b>	<b>45</b>	<b>75</b>	<b>83</b>
FTE	0.6	1.0	0.5	0.7	0.8
<b>Escalation to 2013\$</b>					
Labor	38	45	14	10	0
Non-Labor	45	26	12	10	0
NSE	0	0	0	0	0
<b>Total</b>	<b>84</b>	<b>71</b>	<b>25</b>	<b>20</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	441	680	365	600	606
Non-Labor	524	399	311	575	302
NSE	0	0	0	0	0
<b>Total</b>	<b>965</b>	<b>1,079</b>	<b>676</b>	<b>1,175</b>	<b>908</b>
FTE	4.3	7.0	3.6	5.3	5.6

\* 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.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3072.000 - SUPPLY CHAIN & LOGISTICS SYSTEMS

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-247	-248	-247	-308	0
Non-Labor	-15	-15	-15	-18	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-262</b>	<b>-263</b>	<b>-262</b>	<b>-326</b>	<b>0</b>
FTE	-2.6	-2.6	-2.6	-3.1	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	247	15	0	2.6	CCTR Transf	To 2200-2444.000	FFIGUERO20131 031103044950
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-247	-15	0	-2.6	CCTR Transf	To 2200-2444.000	FFIGUERO20131 031104418897
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-247	-15	0	-2.6	CCTR Transf	To 2200-2444.000	FFIGUERO20131 031105147117
fix prior adjmt made in error							
<b>2009 Total</b>	<b>-247</b>	<b>-15</b>	<b>0</b>	<b>-2.6</b>			
2010	247	0.015	0	2.6	CCTR Transf	To 2200-2444.000	FFIGUERO20131 031103212367
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-248	-15	0	-2.6	CCTR Transf	To 2200-2444.000	FFIGUERO20131 031104506163
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-247	-0.015	0	-2.6	CCTR Transf	To 2200-2444.000	FFIGUERO20131 031105310457
fix prior admnt made in error							
<b>2010 Total</b>	<b>-248</b>	<b>-15</b>	<b>0</b>	<b>-2.6</b>			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3072.000 - SUPPLY CHAIN & LOGISTICS SYSTEMS

<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	247	15	0	2.6	CCTR Transf	To 2200-2444.000	FFIGUERO20131 031103618560
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-247	-15	0	-2.6	CCTR Transf	To 2200-2444.000	FFIGUERO20131 031104543813
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-247	-15	0	-2.6	CCTR Transf	To 2200-2444.000	FFIGUERO20131 031105407313
fix adjmt made in error							
<b>2011 Total</b>	<b>-247</b>	<b>-15</b>	<b>0</b>	<b>-2.6</b>			
2012	-308	-18	0	-3.1	CCTR Transf	To 2200-2444.000	FFIGUERO20131 031104620837
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-308</b>	<b>-18</b>	<b>0</b>	<b>-3.1</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

**Beginning of Workpaper**  
**2100-3073.000 - ENTERPRISE INTEGRATION SERVICES**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3073.000 - ENTERPRISE INTEGRATION SERVICES

**Activity Description:**

This cost center is responsible for performance monitoring, tuning, problem resolution and software installation for the SAP environment.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		1,076	1,085	986	746	774	774	774	774	
Non-Labor		296	285	280	390	168	168	168	168	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1,372</b>	<b>1,369</b>	<b>1,266</b>	<b>1,136</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	
FTE		9.8	10.2	9.4	7.1	7.5	7.5	7.5	7.5	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3073.000 - ENTERPRISE INTEGRATION SERVICES

**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	4	0	0	4	0.03	0	0	0	0	0.03
Directly Allocated	0	2	0	2	0.00	0	2	0	2	0.00
Subj. To % Alloc.	774	166	0	940	7.46	774	166	0	940	7.46
<b>Total Incurred</b>	<b>778</b>	<b>168</b>	<b>0</b>	<b>946</b>	<b>7.49</b>	<b>774</b>	<b>168</b>	<b>0</b>	<b>942</b>	<b>7.49</b>
<b>% Allocation</b>										
Retained	39.75%	39.75%				33.40%	33.40%			
SEU	54.86%	54.86%				62.10%	62.10%			
CORP	5.39%	5.39%				4.50%	4.50%			
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	0.03	0	0	0	0	0.03
Directly Allocated	0	2	0	2	0.00	0	2	0	2	0.00
Subj. To % Alloc.	774	166	0	940	7.46	774	166	0	940	7.46
<b>Total Incurred</b>	<b>774</b>	<b>168</b>	<b>0</b>	<b>942</b>	<b>7.49</b>	<b>774</b>	<b>168</b>	<b>0</b>	<b>942</b>	<b>7.49</b>
<b>% Allocation</b>										
Retained	33.40%	33.40%				33.40%	33.40%			
SEU	62.10%	62.10%				62.10%	62.10%			
CORP	4.50%	4.50%				4.50%	4.50%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3073.000 - ENTERPRISE INTEGRATION SERVICES

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

**Cost Center Allocation Percentage for 2013**

Allocations are based on the number of active SAP R3 Login ID's for SDGE, SCG and Parent. Since this cost center supports SAP shared applications, using the number of active SAP R3 Login ID's for each company is the best method to accurately determine the use of services by each company.

**Cost Center Allocation Percentage for 2014**

Allocations are based on the number of active SAP R3 Login ID's for SDGE, SCG and Parent. Since this cost center supports SAP shared applications, using the number of active SAP R3 Login ID's for each company is the best method to accurately determine the use of services by each company.

**Cost Center Allocation Percentage for 2015**

Allocations are based on the number of active SAP R3 Login ID's for SDGE, SCG and Parent. Since this cost center supports SAP shared applications, using the number of active SAP R3 Login ID's for each company is the best method to accurately determine the use of services by each company.

**Cost Center Allocation Percentage for 2016**

Allocations are based on the number of active SAP R3 Login ID's for SDGE, SCG and Parent. Since this cost center supports SAP shared applications, using the number of active SAP R3 Login ID's for each company is the best method to accurately determine the use of services by each company.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3073.000 - ENTERPRISE INTEGRATION SERVICES

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	774	774	774	0	0	0	774	774	774
Non-Labor	Base YR Rec	168	168	168	0	0	0	168	168	168
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>941</b>	<b>941</b>	<b>941</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>941</b>	<b>941</b>	<b>941</b>
FTE	Base YR Rec	7.5	7.5	7.5	0.0	0.0	0.0	7.5	7.5	7.5

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3073.000 - ENTERPRISE INTEGRATION SERVICES

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	851	874	827	640	671
Non-Labor	270	266	270	384	168
NSE	0	0	0	0	0
<b>Total</b>	<b>1,121</b>	<b>1,140</b>	<b>1,097</b>	<b>1,024</b>	<b>839</b>
FTE	8.4	8.7	8.1	6.1	6.4
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	-3
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-3</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	851	874	827	640	668
Non-Labor	270	266	270	384	168
NSE	0	0	0	0	0
<b>Total</b>	<b>1,121</b>	<b>1,140</b>	<b>1,097</b>	<b>1,024</b>	<b>836</b>
FTE	8.4	8.7	8.1	6.1	6.4
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	131	139	122	93	106
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>131</b>	<b>139</b>	<b>122</b>	<b>93</b>	<b>106</b>
FTE	1.4	1.5	1.3	1.0	1.1
<b>Escalation to 2013\$</b>					
Labor	93	72	37	13	0
Non-Labor	26	19	11	7	0
NSE	0	0	0	0	0
<b>Total</b>	<b>119</b>	<b>91</b>	<b>47</b>	<b>19</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	1,076	1,085	986	746	774
Non-Labor	296	285	280	390	168
NSE	0	0	0	0	0
<b>Total</b>	<b>1,372</b>	<b>1,369</b>	<b>1,266</b>	<b>1,136</b>	<b>941</b>
FTE	9.8	10.2	9.4	7.1	7.5

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3073.000 - ENTERPRISE INTEGRATION SERVICES

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	0	0	-3
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-3</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2009 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2010 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2011 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2012 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
2013	-3	0	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 141947507
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2013 Total</b>	<b>-3</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3074.000 - SSDS PROJECT OFFICE**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3074.000 - SSDS PROJECT OFFICE

**Activity Description:**

This cost center is responsible for architecture and design of new systems and major enhancements to existing systems in the Shared application services department. Business Units supported include SDGE and SoCal Gas.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		160	233	205	171	262	262	262	262	
Non-Labor		-21	241	16	41	29	29	29	29	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>139</b>	<b>474</b>	<b>220</b>	<b>212</b>	<b>291</b>	<b>291</b>	<b>291</b>	<b>291</b>	
FTE		3.8	2.2	2.3	1.8	2.2	2.2	2.2	2.2	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3074.000 - SSDS PROJECT OFFICE

**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	0.00
Subj. To % Alloc.	259	28	0	287	2.25	259	28	0	287	2.25
<b>Total Incurred</b>	<b>262</b>	<b>28</b>	<b>0</b>	<b>290</b>	<b>2.25</b>	<b>262</b>	<b>28</b>	<b>0</b>	<b>290</b>	<b>2.25</b>
<b>% Allocation</b>										
Retained	45.14%	45.14%				76.08%	76.08%			
SEU	51.13%	51.13%				23.92%	23.92%			
CORP	3.73%	3.73%				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	0.00	0	0	0	0	0.00
Subj. To % Alloc.	259	28	0	287	2.25	259	28	0	287	2.25
<b>Total Incurred</b>	<b>262</b>	<b>28</b>	<b>0</b>	<b>290</b>	<b>2.25</b>	<b>262</b>	<b>28</b>	<b>0</b>	<b>290</b>	<b>2.25</b>
<b>% Allocation</b>										
Retained	76.08%	76.08%				76.08%	76.08%			
SEU	23.92%	23.92%				23.92%	23.92%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3074.000 - SSDS PROJECT OFFICE

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

**Cost Center Allocation Percentage for 2013**

Allocations are based on a labor study of all projects supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all projects supported by this cost center is appropriate as it defines how the resources in the department will be allocated.

**Cost Center Allocation Percentage for 2014**

Allocations are based on a labor study of all projects supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all projects supported by this cost center is appropriate as it defines how the resources in the department will be allocated.

**Cost Center Allocation Percentage for 2015**

Allocations are based on a labor study of all projects supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all projects supported by this cost center is appropriate as it defines how the resources in the department will be allocated.

**Cost Center Allocation Percentage for 2016**

Allocations are based on a labor study of all projects supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all projects supported by this cost center is appropriate as it defines how the resources in the department will be allocated.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3074.000 - SSDS PROJECT OFFICE

**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	262	262	262	0	0	0	262	262	262
Non-Labor	Base YR Rec	29	29	29	0	0	0	29	29	29
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>291</b>	<b>291</b>	<b>291</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>291</b>	<b>291</b>	<b>291</b>
FTE	Base YR Rec	2.2	2.2	2.2	0.0	0.0	0.0	2.2	2.2	2.2

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3074.000 - SSDS PROJECT OFFICE

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	88	188	172	147	226
Non-Labor	14	225	15	41	29
NSE	0	0	0	0	0
<b>Total</b>	<b>102</b>	<b>413</b>	<b>187</b>	<b>187</b>	<b>255</b>
FTE	0.8	1.9	1.9	1.6	1.9
<b>Adjustments (Nominal \$) **</b>					
Labor	38	0	0	0	0
Non-Labor	-33	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	2.4	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	127	188	172	147	226
Non-Labor	-19	225	15	41	29
NSE	0	0	0	0	0
<b>Total</b>	<b>107</b>	<b>413</b>	<b>187</b>	<b>187</b>	<b>255</b>
FTE	3.2	1.9	1.9	1.6	1.9
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	20	30	25	21	36
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>20</b>	<b>30</b>	<b>25</b>	<b>21</b>	<b>36</b>
FTE	0.5	0.3	0.3	0.3	0.3
<b>Escalation to 2013\$</b>					
Labor	14	15	8	3	0
Non-Labor	-2	16	1	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>12</b>	<b>31</b>	<b>8</b>	<b>4</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	160	233	205	171	262
Non-Labor	-21	241	16	41	29
NSE	0	0	0	0	0
<b>Total</b>	<b>139</b>	<b>474</b>	<b>220</b>	<b>212</b>	<b>291</b>
FTE	3.7	2.2	2.2	1.9	2.2

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

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

Note: Totals may include rounding differences.



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3074.000 - SSDS PROJECT OFFICE

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	38	0	0	0	0
Non-Labor	-33	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	2.4	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	38	-33	0	2.4	1-Sided Adj	N/A	LBROUGH201311 22143551247
Adjust to 2013 Outlook (as of Nov, 2013)							

<b>2009 Total</b>	<b>38</b>	<b>-33</b>	<b>0</b>	<b>2.4</b>
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<b>2010 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>
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<b>2011 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>
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<b>2012 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>
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<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>
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*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3076.000 - CORPORATE SYSTEMS**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3076.000 - CORPORATE SYSTEMS

**Activity Description:**

This cost center supports Business and Corporate services, providing software development and system support services for specific applications that are not system-wide for SDGE, SCG and Sempra.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		1,345	1,303	1,214	1,279	1,317	1,317	1,317	1,317	
Non-Labor		152	307	49	39	7	7	7	7	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1,497</b>	<b>1,610</b>	<b>1,264</b>	<b>1,318</b>	<b>1,324</b>	<b>1,324</b>	<b>1,324</b>	<b>1,324</b>	
FTE		13.3	13.0	12.2	12.8	13.1	13.1	13.1	13.1	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3076.000 - CORPORATE SYSTEMS

**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	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.	1,317	7	0	1,324	13.08	1,317	7	0	1,324	13.08
<b>Total Incurred</b>	<b>1,317</b>	<b>7</b>	<b>0</b>	<b>1,324</b>	<b>13.08</b>	<b>1,317</b>	<b>7</b>	<b>0</b>	<b>1,324</b>	<b>13.08</b>
<b>% Allocation</b>										
Retained	54.42%	54.42%				54.42%	54.42%			
SEU	39.58%	39.58%				39.58%	39.58%			
CORP	6.00%	6.00%				6.00%	6.00%			
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.	1,317	7	0	1,324	13.08	1,317	7	0	1,324	13.08
<b>Total Incurred</b>	<b>1,317</b>	<b>7</b>	<b>0</b>	<b>1,324</b>	<b>13.08</b>	<b>1,317</b>	<b>7</b>	<b>0</b>	<b>1,324</b>	<b>13.08</b>
<b>% Allocation</b>										
Retained	54.42%	54.42%				54.42%	54.42%			
SEU	39.58%	39.58%				39.58%	39.58%			
CORP	6.00%	6.00%				6.00%	6.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3076.000 - CORPORATE SYSTEMS

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

**Cost Center Allocation Percentage for 2013**

Allocations are based on a labor study of all applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

**Cost Center Allocation Percentage for 2014**

Allocations are based on a labor study of all applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

**Cost Center Allocation Percentage for 2015**

Allocations are based on a labor study of all applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

**Cost Center Allocation Percentage for 2016**

Allocations are based on a labor study of all applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3076.000 - CORPORATE SYSTEMS

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	1,317	1,317	1,317	0	0	0	1,317	1,317	1,317
Non-Labor	Base YR Rec	7	7	7	0	0	0	7	7	7
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>1,324</b>	<b>1,324</b>	<b>1,324</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,324</b>	<b>1,324</b>	<b>1,324</b>
FTE	Base YR Rec	13.1	13.1	13.1	0.0	0.0	0.0	13.1	13.1	13.1

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3076.000 - CORPORATE SYSTEMS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	1,064	1,050	1,019	1,098	1,137
Non-Labor	139	286	47	38	7
NSE	0	0	0	0	0
<b>Total</b>	<b>1,203</b>	<b>1,336</b>	<b>1,066</b>	<b>1,136</b>	<b>1,144</b>
FTE	11.4	11.1	10.5	11.0	11.1
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	1,064	1,050	1,019	1,098	1,137
Non-Labor	139	286	47	38	7
NSE	0	0	0	0	0
<b>Total</b>	<b>1,203</b>	<b>1,336</b>	<b>1,066</b>	<b>1,136</b>	<b>1,144</b>
FTE	11.4	11.1	10.5	11.0	11.1
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	164	167	150	159	180
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>164</b>	<b>167</b>	<b>150</b>	<b>159</b>	<b>180</b>
FTE	1.9	1.9	1.7	1.8	2.0
<b>Escalation to 2013\$</b>					
Labor	116	86	46	22	0
Non-Labor	13	20	2	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>130</b>	<b>106</b>	<b>47</b>	<b>22</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	1,345	1,303	1,214	1,279	1,317
Non-Labor	152	307	49	39	7
NSE	0	0	0	0	0
<b>Total</b>	<b>1,497</b>	<b>1,610</b>	<b>1,264</b>	<b>1,318</b>	<b>1,324</b>
FTE	13.3	13.0	12.2	12.8	13.1

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3076.000 - CORPORATE SYSTEMS

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*



**Beginning of Workpaper**  
**2100-3079.000 - SCG CUSTOMER CARE PROJECT OFFICE**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3079.000 - SCG CUSTOMER CARE PROJECT OFFICE

**Activity Description:**

This cost center manages and supports data transfers between applications used by SCG, SDGE, and Corporate Center and over 200 external business partners.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		165	124	69	189	33	33	33	33	
Non-Labor		7	7	48	429	30	30	30	30	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>173</b>	<b>131</b>	<b>117</b>	<b>618</b>	<b>63</b>	<b>63</b>	<b>63</b>	<b>63</b>	
FTE		1.5	1.0	0.6	2.2	0.3	0.3	0.3	0.3	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3079.000 - SCG CUSTOMER CARE PROJECT OFFICE

**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	1	0	1	0.00	0	1	0	1	0.00
Directly Allocated	15	7	0	22	0.14	15	7	0	22	0.14
Subj. To % Alloc.	18	21	0	39	0.16	18	21	0	39	0.16
<b>Total Incurred</b>	<b>33</b>	<b>29</b>	<b>0</b>	<b>62</b>	<b>0.30</b>	<b>33</b>	<b>29</b>	<b>0</b>	<b>62</b>	<b>0.30</b>
<b>% Allocation</b>										
Retained	0.00%	0.00%				38.08%	38.08%			
SEU	100.00%	100.00%				58.32%	58.32%			
CORP	0.00%	0.00%				3.60%	3.60%			
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	1	0	1	0.00	0	1	0	1	0.00
Directly Allocated	15	7	0	22	0.14	15	7	0	22	0.14
Subj. To % Alloc.	18	21	0	39	0.16	18	21	0	39	0.16
<b>Total Incurred</b>	<b>33</b>	<b>29</b>	<b>0</b>	<b>62</b>	<b>0.30</b>	<b>33</b>	<b>29</b>	<b>0</b>	<b>62</b>	<b>0.30</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3079.000 - SCG CUSTOMER CARE PROJECT OFFICE

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

**Cost Center Allocation Percentage for 2013**

The systems & applications supported in this cost center are used by SCG employees for SCG and their customers, so an allocation, by resource usage, of this cost center's costs are allocable to SCG.

**Cost Center Allocation Percentage for 2014**

The percentage calculation assumptions are based on the total number of LAN login ID's for SDGE, SCG and parent. The LAN ID count calculation is appropriate based on the employee count. Using LAN login ID counts for each respective company accurately determines the use of services by each company.

**Cost Center Allocation Percentage for 2015**

The percentage calculation assumptions are based on the total number of LAN login ID's for SDGE, SCG and parent. The LAN ID count calculation is appropriate based on the employee count. Using LAN login ID counts for each respective company accurately determines the use of services by each company.

**Cost Center Allocation Percentage for 2016**

The percentage calculation assumptions are based on the total number of LAN login ID's for SDGE, SCG and parent. The LAN ID count calculation is appropriate based on the employee count. Using LAN login ID counts for each respective company accurately determines the use of services by each company.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3079.000 - SCG CUSTOMER CARE PROJECT OFFICE

**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	33	33	33	0	0	0	33	33	33
Non-Labor	Base YR Rec	30	30	30	0	0	0	30	30	30
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>63</b>	<b>63</b>	<b>63</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>63</b>	<b>63</b>	<b>63</b>
FTE	Base YR Rec	0.3	0.3	0.3	0.0	0.0	0.0	0.3	0.3	0.3

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3079.000 - SCG CUSTOMER CARE PROJECT OFFICE

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	131	100	58	162	28
Non-Labor	7	6	46	456	30
NSE	0	0	0	0	0
<b>Total</b>	<b>137</b>	<b>106</b>	<b>104</b>	<b>618</b>	<b>58</b>
FTE	1.3	0.9	0.5	1.9	0.3
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	-34	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-34</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	131	100	58	162	28
Non-Labor	7	6	46	422	30
NSE	0	0	0	0	0
<b>Total</b>	<b>137</b>	<b>106</b>	<b>104</b>	<b>584</b>	<b>58</b>
FTE	1.3	0.9	0.5	1.9	0.3
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	20	16	9	24	5
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>20</b>	<b>16</b>	<b>9</b>	<b>24</b>	<b>5</b>
FTE	0.2	0.1	0.1	0.3	0.0
<b>Escalation to 2013\$</b>					
Labor	14	8	3	3	0
Non-Labor	1	0	2	7	0
NSE	0	0	0	0	0
<b>Total</b>	<b>15</b>	<b>9</b>	<b>4</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	165	124	69	189	33
Non-Labor	7	7	48	429	30
NSE	0	0	0	0	0
<b>Total</b>	<b>173</b>	<b>131</b>	<b>117</b>	<b>618</b>	<b>63</b>
FTE	1.5	1.0	0.6	2.2	0.3

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3079.000 - SCG CUSTOMER CARE PROJECT OFFICE

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	0	0	0
Non-Labor	0	0	0	-34	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-34</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2009 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2010 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2011 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
2012	0	-34	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 141750863
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2012 Total</b>	<b>0</b>	<b>-34</b>	<b>0</b>	<b>0.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3080.000 - MAJOR MARKETS & CUSTOMER SELF SERVICE**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3080.000 - MAJOR MARKETS & CUSTOMER SELF SERVICE

**Activity Description:**

This cost center provides maintenance and enhancement programming support of HECT & GRC2 applications for SDG&E customers systems supported. It also supports MyAccount for SDG&E and SCG users.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		693	17	111	134	2	2	2	2	
Non-Labor		700	360	251	487	16	16	16	16	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1,392</b>	<b>377</b>	<b>362</b>	<b>621</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	
FTE		7.6	1.1	1.0	1.6	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3080.000 - MAJOR MARKETS & CUSTOMER SELF SERVICE

**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	0	0	-1	-0.01	-1	0	0	-1	-0.01
Directly Allocated	-5	14	0	9	-0.05	-5	14	0	9	-0.05
Subj. To % Alloc.	9	2	0	11	0.10	9	2	0	11	0.10
<b>Total Incurred</b>	<b>3</b>	<b>16</b>	<b>0</b>	<b>19</b>	<b>0.04</b>	<b>3</b>	<b>16</b>	<b>0</b>	<b>19</b>	<b>0.04</b>
<b>% Allocation</b>										
Retained	26.50%	26.50%				26.50%	26.50%			
SEU	73.50%	73.50%				73.50%	73.50%			
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	0	0	-1	-0.01	-1	0	0	-1	-0.01
Directly Allocated	-5	14	0	9	-0.05	-5	14	0	9	-0.05
Subj. To % Alloc.	9	2	0	11	0.10	9	2	0	11	0.10
<b>Total Incurred</b>	<b>3</b>	<b>16</b>	<b>0</b>	<b>19</b>	<b>0.04</b>	<b>3</b>	<b>16</b>	<b>0</b>	<b>19</b>	<b>0.04</b>
<b>% Allocation</b>										
Retained	26.50%	26.50%				26.50%	26.50%			
SEU	73.50%	73.50%				73.50%	73.50%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3080.000 - MAJOR MARKETS & CUSTOMER SELF SERVICE

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

**Cost Center Allocation Percentage for 2013**

The allocations are calculated by projecting by systems supported by this cost center, the number of employee labor and contractor-agency FTEs supporting the systems. These FTE numbers by system are then multiplied by the affiliate percentages assigned to each system. These amounts are totaled by affiliate and a weighted-average is calculated for each affiliate. This allocation method cost center supports the HECT & GRC2 applications. These systems are used exclusively by SDG&E . This cost center also supports MyAccount applications and projects for both SCG and SDGE.

**Cost Center Allocation Percentage for 2014**

The allocations are calculated by projecting by systems supported by this cost center, the number of employee labor and contractor-agency FTEs supporting the systems. These FTE numbers by system are then multiplied by the affiliate percentages assigned to each system. These amounts are totaled by affiliate and a weighted-average is calculated for each affiliate. This allocation method cost center supports the HECT & GRC2 applications. These systems are used exclusively by SDG&E . This cost center also supports MyAccount applications and projects for both SCG and SDGE.

**Cost Center Allocation Percentage for 2015**

The allocations are calculated by projecting by systems supported by this cost center, the number of employee labor and contractor-agency FTEs supporting the systems. These FTE numbers by system are then multiplied by the affiliate percentages assigned to each system. These amounts are totaled by affiliate and a weighted-average is calculated for each affiliate. This allocation method cost center supports the HECT & GRC2 applications. These systems are used exclusively by SDG&E . This cost center also supports MyAccount applications and projects for both SCG and SDGE.

**Cost Center Allocation Percentage for 2016**

The allocations are calculated by projecting by systems supported by this cost center, the number of employee labor and contractor-agency FTEs supporting the systems. These FTE numbers by system are then multiplied by the affiliate percentages assigned to each system. These amounts are totaled by affiliate and a weighted-average is calculated for each affiliate. This allocation method cost center supports the HECT & GRC2 applications. These systems are used exclusively by SDG&E . This cost center also supports MyAccount applications and projects for both SCG and SDGE.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3080.000 - MAJOR MARKETS & CUSTOMER SELF SERVICE

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	2	2	2	0	0	0	2	2	2
Non-Labor	Base YR Rec	16	16	16	0	0	0	16	16	16
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>18</b>	<b>18</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>18</b>	<b>18</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3080.000 - MAJOR MARKETS & CUSTOMER SELF SERVICE

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	879	676	425	495	2
Non-Labor	660	378	262	503	16
NSE	0	0	0	0	0
<b>Total</b>	<b>1,539</b>	<b>1,054</b>	<b>687</b>	<b>998</b>	<b>18</b>
FTE	9.5	6.9	3.9	4.4	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	-331	-662	-332	-380	0
Non-Labor	-21	-42	-21	-24	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-352</b>	<b>-704</b>	<b>-353</b>	<b>-404</b>	<b>0</b>
FTE	-3.0	-6.0	-3.0	-3.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	548	14	93	115	2
Non-Labor	639	336	241	479	16
NSE	0	0	0	0	0
<b>Total</b>	<b>1,187</b>	<b>350</b>	<b>334</b>	<b>594</b>	<b>18</b>
FTE	6.5	0.9	0.9	1.4	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	85	2	14	17	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>85</b>	<b>2</b>	<b>14</b>	<b>17</b>	<b>0</b>
FTE	1.1	0.2	0.1	0.2	0.0
<b>Escalation to 2013\$</b>					
Labor	60	1	4	2	0
Non-Labor	61	24	9	8	0
NSE	0	0	0	0	0
<b>Total</b>	<b>121</b>	<b>25</b>	<b>14</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	693	17	111	134	2
Non-Labor	700	360	251	487	16
NSE	0	0	0	0	0
<b>Total</b>	<b>1,392</b>	<b>377</b>	<b>362</b>	<b>621</b>	<b>18</b>
FTE	7.6	1.1	1.0	1.6	0.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3080.000 - MAJOR MARKETS & CUSTOMER SELF SERVICE

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-331	-662	-332	-380	0
Non-Labor	-21	-42	-21	-24	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-352</b>	<b>-704</b>	<b>-353</b>	<b>-404</b>	<b>0</b>
FTE	-3.0	-6.0	-3.0	-3.0	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	-331	-21	0	-3.0	CCTR Transf	To 2200-2405.000	FFIGUERO20131 031110123160
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-331</b>	<b>-21</b>	<b>0</b>	<b>-3.0</b>			
2010	-331	-21	0	-3.0	CCTR Transf	To 2200-2405.000	FFIGUERO20131 031111317563
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-331	-21	0	-3.0	CCTR Transf	To 2200-2405.000	FFIGUERO20131 031111540997
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-662</b>	<b>-42</b>	<b>0</b>	<b>-6.0</b>			
2011	-331	-21	0	-3.0	CCTR Transf	To 2200-2405.000	FFIGUERO20131 101095450973
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-0.783	0	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 140356007
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2011 Total</b>	<b>-332</b>	<b>-21</b>	<b>0</b>	<b>-3.0</b>			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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 Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
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 Cost Center: 2100-3080.000 - MAJOR MARKETS & CUSTOMER SELF SERVICE

<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	-380	-24	0	-3.0	CCTR Transf	To 2200-2405.000	FFIGUERO20131 101095603390
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-0.146	0	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 141832143
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2012 Total</b>	<b>-380</b>	<b>-24</b>	<b>0</b>	<b>-3.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3082.000 - SCG CUSTOMER INFORMATION SYSTEMS**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3082.000 - SCG CUSTOMER INFORMATION SYSTEMS

**Activity Description:**

This cost center provides maintenance and enhancement programming support of finance, collections, revenue reporting and and billing functions of SoCalGas Customer Information system.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		789	950	110	494	-3	-3	-3	-3	
Non-Labor		40	246	562	472	53	53	53	53	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>829</b>	<b>1,197</b>	<b>672</b>	<b>966</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	
FTE		9.3	11.1	3.8	7.2	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3082.000 - SCG CUSTOMER INFORMATION SYSTEMS

**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	-5	8	0	3	-0.05	-5	8	0	3	-0.05
Directly Allocated	0	0	0	0	0.00	0	0	0	0	-0.01
Subj. To % Alloc.	2	46	0	48	0.02	2	46	0	48	0.02
<b>Total Incurred</b>	<b>-3</b>	<b>54</b>	<b>0</b>	<b>51</b>	<b>-0.03</b>	<b>-3</b>	<b>54</b>	<b>0</b>	<b>51</b>	<b>-0.04</b>
<b>% Allocation</b>										
Retained	0.00%	0.00%				0.00%	0.00%			
SEU	100.00%	100.00%				100.00%	100.00%			
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	-5	8	0	3	-0.05	-5	8	0	3	-0.05
Directly Allocated	0	0	0	0	-0.01	0	0	0	0	-0.01
Subj. To % Alloc.	2	46	0	48	0.02	2	46	0	48	0.02
<b>Total Incurred</b>	<b>-3</b>	<b>54</b>	<b>0</b>	<b>51</b>	<b>-0.04</b>	<b>-3</b>	<b>54</b>	<b>0</b>	<b>51</b>	<b>-0.04</b>
<b>% Allocation</b>										
Retained	0.00%	0.00%				0.00%	0.00%			
SEU	100.00%	100.00%				100.00%	100.00%			
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**

This cost center supports the SCG Gas Customer Information System (CIS). These systems are used exclusively by SCG employees for SCG customers.

**Cost Center Allocation Percentage for 2014**

This cost center supports the SCG Gas Customer Information System (CIS). These systems are used exclusively by SCG employees for SCG customers.

**Cost Center Allocation Percentage for 2015**

This cost center supports the SCG Gas Customer Information System (CIS). These systems are used exclusively by SCG employees for SCG customers.

**Cost Center Allocation Percentage for 2016**

This cost center supports the SCG Gas Customer Information System (CIS). These systems are used exclusively by SCG employees for SCG customers.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3082.000 - SCG CUSTOMER INFORMATION SYSTEMS

**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	-3	-3	-3	0	0	0	-3	-3	-3
Non-Labor	Base YR Rec	53	53	53	0	0	0	53	53	53
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>50</b>	<b>50</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>50</b>	<b>50</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3082.000 - SCG CUSTOMER INFORMATION SYSTEMS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	1,545	1,686	1,818	1,429	-3
Non-Labor	76	269	616	506	53
NSE	0	0	0	0	0
<b>Total</b>	<b>1,620</b>	<b>1,955</b>	<b>2,434</b>	<b>1,935</b>	<b>51</b>
FTE	17.0	18.5	19.3	15.2	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	-920	-920	-1,725	-1,005	0
Non-Labor	-39	-39	-75	-42	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-959</b>	<b>-959</b>	<b>-1,800</b>	<b>-1,047</b>	<b>0</b>
FTE	-9.0	-9.0	-16.0	-9.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	624	766	92	424	-3
Non-Labor	37	230	541	464	53
NSE	0	0	0	0	0
<b>Total</b>	<b>661</b>	<b>996</b>	<b>633</b>	<b>888</b>	<b>51</b>
FTE	8.0	9.5	3.3	6.2	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	96	122	14	61	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>96</b>	<b>122</b>	<b>14</b>	<b>61</b>	<b>0</b>
FTE	1.3	1.6	0.5	1.0	0.0
<b>Escalation to 2013\$</b>					
Labor	68	63	4	8	0
Non-Labor	3	16	21	8	0
NSE	0	0	0	0	0
<b>Total</b>	<b>72</b>	<b>79</b>	<b>25</b>	<b>16</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	789	950	110	494	-3
Non-Labor	40	246	562	472	53
NSE	0	0	0	0	0
<b>Total</b>	<b>829</b>	<b>1,197</b>	<b>672</b>	<b>966</b>	<b>50</b>
FTE	9.3	11.1	3.8	7.2	0.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3082.000 - SCG CUSTOMER INFORMATION SYSTEMS

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-920	-920	-1,725	-1,005	0
Non-Labor	-39	-39	-75	-42	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-959</b>	<b>-959</b>	<b>-1,800</b>	<b>-1,047</b>	<b>0</b>
FTE	-9.0	-9.0	-16.0	-9.0	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	-641	-30	0	-6.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031112002920
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-200	-6	0	-2.0	CCTR Transf	To 2200-2452.000	FFIGUERO20131 105153007700
IT Employee Transfer from SDGE to SCG as of 2013 Zero out 2010 thru 2013: GRID 2009 Data is Zero Per Finance/delete entries from 2100-4001 for 2010 thru 2013 Entries will now appear in cctr 2100-3082 from 2009 to 2013							
2009	-79	-3	0	-1.0	CCTR Transf	To 2200-2047.000	FFIGUERO20131 105154218113
IT Employee Transfer from SDGE to SCG as of 2013 Zero out 2010 thru 2013: GRID 2009 Data is Zero Per Finance/delete entries from 2100-4003 for 2010 thru 2013 Entries will now appear in cctr 2100-3082 from 2009 to 2013							

<b>2009 Total</b>	<b>-920</b>	<b>-39</b>	<b>0</b>	<b>-9.0</b>			
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2010	-641	-30	0	-6.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031112101933
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-200	-6	0	-2.0	CCTR Transf	To 2200-2452.000	FFIGUERO20131 105153400750
IT Employee Transfer from SDGE to SCG as of 2013 Zero out 2010 thru 2013: GRID 2009 Data is Zero Per Finance/delete entries from 2100-4001 for 2010 thru 2013 Entries will now appear in cctr 2100-3082 from 2009 to 2013							

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3082.000 - SCG CUSTOMER INFORMATION SYSTEMS

<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	-79	-3	0	-1.0	CCTR Transf	To 2200-2047.000	FFIGUERO20131 105154247810
IT Employee Transfer from SDGE to SCG as of 2013 Zero out 2010 thru 2013: GRID 2009 Data is Zero Per Finance/delete entries from 2100-4003 for 2010 thru 2013 Entries will now appear in cctr 2100-3082 from 2009 to 2013							
<b>2010 Total</b>	<b>-920</b>	<b>-39</b>	<b>0</b>	<b>-9.0</b>			

2011	-641	-30	0	-6.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031112144720
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IT Employee Transfer from SDGE to SCG as of 2013

2011	-641	-30	0	-6.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031112232487
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IT Employee Transfer from SDGE to SCG as of 2013

2011	-285	-9	0	-2.0	CCTR Transf	To 2200-2452.000	FFIGUERO20131 105153443183
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IT Employee Transfer from SDGE to SCG as of 2013  
 Zero out 2010 thru 2013: GRID 2009 Data is Zero  
 Per Finance/delete entries from 2100-4001 for 2010 thru 2013  
 Entries will now appear in cctr 2100-3082 from 2009 to 2013

2011	-79	-3	0	-1.0	CCTR Transf	To 2200-2047.000	FFIGUERO20131 105154317213
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IT Employee Transfer from SDGE to SCG as of 2013  
 Zero out 2010 thru 2013: GRID 2009 Data is Zero  
 Per Finance/delete entries from 2100-4003 for 2010 thru 2013  
 Entries will now appear in cctr 2100-3082 from 2009 to 2013

2011	-79	-3	0	-1.0	CCTR Transf	To 2200-2047.000	FFIGUERO20131 105154607187
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Duplicate Entry Error

<b>2011 Total</b>	<b>-1,725</b>	<b>-75</b>	<b>0</b>	<b>-16.0</b>			
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2012	-641	-30	0	-6.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031112327313
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IT Employee Transfer from SDGE to SCG as of 2013

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3082.000 - SCG CUSTOMER INFORMATION SYSTEMS

<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	-285	-9	0	-2.0	CCTR Transf	To 2200-2452.000	FFIGUERO20131 105153529347
IT Employee Transfer from SDGE to SCG as of 2013 Zero out 2010 thru 2013: GRID 2009 Data is Zero Per Finance/delete entries from 2100-4001 for 2010 thru 2013 Entries will now appear in cctr 2100-3082 from 2009 to 2013							
2012	-79	-3	0	-1.0	CCTR Transf	To 2200-2047.000	FFIGUERO20131 105154347990
IT Employee Transfer from SDGE to SCG as of 2013 Zero out 2010 thru 2013: GRID 2009 Data is Zero Per Finance/delete entries from 2100-4003 for 2010 thru 2013 Entries will now appear in cctr 2100-3082 from 2009 to 2013							
<b>2012 Total</b>	<b>-1,005</b>	<b>-42</b>	<b>0</b>	<b>-9.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3083.000 - SCG CUSTOMER FIELD**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3083.000 - SCG CUSTOMER FIELD

**Activity Description:**

Provide maintenance and enhancement programming support of automated dispatch, routing and scheduling systems for SoCalGas customer service orders. Systems supported - PACER, MCS. and Amigo - Maintenance, Enhancements and Upgrades.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		778	870	722	201	-2	-2	-2	-2	
Non-Labor		-1	13	227	61	0	0	0	0	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>778</b>	<b>883</b>	<b>949</b>	<b>262</b>	<b>-2</b>	<b>-2</b>	<b>-2</b>	<b>-2</b>	
FTE		8.8	10.1	8.2	2.2	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3083.000 - SCG CUSTOMER FIELD

**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	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.	-2	0	0	-2	-0.01	-2	0	0	-2	-0.01
<b>Total Incurred</b>	<b>-2</b>	<b>0</b>	<b>0</b>	<b>-2</b>	<b>-0.01</b>	<b>-2</b>	<b>0</b>	<b>0</b>	<b>-2</b>	<b>-0.01</b>
<b>% Allocation</b>										
Retained	0.00%	0.00%				0.00%	0.00%			
SEU	100.00%	100.00%				100.00%	100.00%			
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.	-2	0	0	-2	-0.01	-2	0	0	-2	-0.01
<b>Total Incurred</b>	<b>-2</b>	<b>0</b>	<b>0</b>	<b>-2</b>	<b>-0.01</b>	<b>-2</b>	<b>0</b>	<b>0</b>	<b>-2</b>	<b>-0.01</b>
<b>% Allocation</b>										
Retained	0.00%	0.00%				0.00%	0.00%			
SEU	100.00%	100.00%				100.00%	100.00%			
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**

This cost center supports the SCG Routing & Dispatch systems: PACER, MCS and Amigo, which are for capital work by applications used by SCG only.

**Cost Center Allocation Percentage for 2014**

This cost center supports the SCG Routing & Dispatch systems: PACER, MCS and Amigo, which are for capital work by applications used by SCG only.

**Cost Center Allocation Percentage for 2015**

This cost center supports the SCG Routing & Dispatch systems: PACER, MCS and Amigo, which are for capital work by applications used by SCG only.

**Cost Center Allocation Percentage for 2016**

This cost center supports the SCG Routing & Dispatch systems: PACER, MCS and Amigo, which are for capital work by applications used by SCG only.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3083.000 - SCG CUSTOMER FIELD

**Forecast Summary:**

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

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3083.000 - SCG CUSTOMER FIELD

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	915	1,000	905	472	-2
Non-Labor	15	27	234	45	0
NSE	0	0	0	0	0
<b>Total</b>	<b>930</b>	<b>1,028</b>	<b>1,139</b>	<b>517</b>	<b>-2</b>
FTE	10.5	11.6	10.1	4.9	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	-299	-299	-299	-299	0
Non-Labor	-15	-15	-15	15	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-314</b>	<b>-314</b>	<b>-314</b>	<b>-284</b>	<b>0</b>
FTE	-3.0	-3.0	-3.0	-3.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	616	701	605	173	-2
Non-Labor	0	12	219	60	0
NSE	0	0	0	0	0
<b>Total</b>	<b>615</b>	<b>713</b>	<b>824</b>	<b>233</b>	<b>-2</b>
FTE	7.5	8.6	7.1	1.9	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	95	112	89	25	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>95</b>	<b>112</b>	<b>89</b>	<b>25</b>	<b>0</b>
FTE	1.3	1.5	1.2	0.3	0.0
<b>Escalation to 2013\$</b>					
Labor	67	57	27	3	0
Non-Labor	0	1	9	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>67</b>	<b>58</b>	<b>36</b>	<b>4</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	778	870	722	201	-2
Non-Labor	-1	13	227	61	0
NSE	0	0	0	0	0
<b>Total</b>	<b>778</b>	<b>883</b>	<b>949</b>	<b>262</b>	<b>-2</b>
FTE	8.8	10.1	8.3	2.2	0.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3083.000 - SCG CUSTOMER FIELD

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-299	-299	-299	-299	0
Non-Labor	-15	-15	-15	15	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-314</b>	<b>-314</b>	<b>-314</b>	<b>-284</b>	<b>0</b>
FTE	-3.0	-3.0	-3.0	-3.0	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	-299	-15	0	-3.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031113955710
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-299</b>	<b>-15</b>	<b>0</b>	<b>-3.0</b>			
2010	-299	-15	0	-3.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031114143000
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-299</b>	<b>-15</b>	<b>0</b>	<b>-3.0</b>			
2011	-299	-15	0	-3.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031114230427
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-299</b>	<b>-15</b>	<b>0</b>	<b>-3.0</b>			
2012	-299	15	0	-3.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031114312693
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-299</b>	<b>15</b>	<b>0</b>	<b>-3.0</b>			

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3083.000 - SCG CUSTOMER FIELD

<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 Total	0	0	0	0.0			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3086.000 - CUSTOMER ASSISTANCE AND RELATIONSHIP**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3086.000 - CUSTOMER ASSISTANCE AND RELATIONSHIP

**Activity Description:**

Maintenance and enhancement programming support of technical framework associated with Customer Relationship Management (CRM). Supports SCG Mobile Application. My Account SDG&E, and a host of microsites like IEBMS, SDG&E Mobile Application.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		318	260	285	452	485	485	485	485	
Non-Labor		-161	92	114	605	298	298	298	298	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>156</b>	<b>352</b>	<b>398</b>	<b>1,057</b>	<b>782</b>	<b>782</b>	<b>782</b>	<b>782</b>	
FTE		4.3	2.8	3.1	5.0	4.6	4.6	4.6	4.6	

*Note: Totals may include rounding differences.*



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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3086.000 - CUSTOMER ASSISTANCE AND RELATIONSHIP

**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	41	95	0	136	0.48	41	95	0	136	0.48
Directly Allocated	5	0	0	5	0.05	5	0	0	5	0.05
Subj. To % Alloc.	442	270	0	712	4.07	438	203	0	641	4.07
<b>Total Incurred</b>	<b>488</b>	<b>365</b>	<b>0</b>	<b>853</b>	<b>4.60</b>	<b>484</b>	<b>298</b>	<b>0</b>	<b>782</b>	<b>4.60</b>
<b>% Allocation</b>										
Retained	84.39%	84.39%				84.39%	84.39%			
SEU	15.61%	15.61%				15.61%	15.61%			
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	41	95	0	136	0.48	41	95	0	136	0.48
Directly Allocated	5	0	0	5	0.05	5	0	0	5	0.05
Subj. To % Alloc.	438	203	0	641	4.07	438	203	0	641	4.07
<b>Total Incurred</b>	<b>484</b>	<b>298</b>	<b>0</b>	<b>782</b>	<b>4.60</b>	<b>484</b>	<b>298</b>	<b>0</b>	<b>782</b>	<b>4.60</b>
<b>% Allocation</b>										
Retained	84.39%	84.39%				84.39%	84.39%			
SEU	15.61%	15.61%				15.61%	15.61%			
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**

Current year budgeted activities as it most accurately represents the allocation rates for this cost center.

**Cost Center Allocation Percentage for 2014**

Current year budgeted activities as it most accurately represents the allocation rates for this cost center.

**Cost Center Allocation Percentage for 2015**

Current year budgeted activities as it most accurately represents the allocation rates for this cost center.

**Cost Center Allocation Percentage for 2016**

Current year budgeted activities as it most accurately represents the allocation rates for this cost center.

Note: Totals may include rounding differences.

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 Cost Center: 2100-3086.000 - CUSTOMER ASSISTANCE AND RELATIONSHIP

**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	485	485	485	0	0	0	485	485	485
Non-Labor	Base YR Rec	298	298	298	0	0	0	298	298	298
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>782</b>	<b>782</b>	<b>782</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>782</b>	<b>782</b>	<b>782</b>
FTE	Base YR Rec	4.6	4.6	4.6	0.0	0.0	0.0	4.6	4.6	4.6

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

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Cost Center: 2100-3086.000 - CUSTOMER ASSISTANCE AND RELATIONSHIP

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	291	261	301	450	421
Non-Labor	165	92	118	604	365
NSE	0	0	0	0	0
<b>Total</b>	<b>455</b>	<b>353</b>	<b>419</b>	<b>1,054</b>	<b>786</b>
FTE	3.2	2.4	2.6	4.3	3.9
<b>Adjustments (Nominal \$) **</b>					
Labor	-39	-52	-62	-62	-3
Non-Labor	-312	-6	-9	-9	-67
NSE	0	0	0	0	0
<b>Total</b>	<b>-351</b>	<b>-58</b>	<b>-71</b>	<b>-71</b>	<b>-70</b>
FTE	0.4	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	251	209	239	388	418
Non-Labor	-147	86	109	595	298
NSE	0	0	0	0	0
<b>Total</b>	<b>104</b>	<b>295</b>	<b>348</b>	<b>983</b>	<b>716</b>
FTE	3.6	2.4	2.6	4.3	3.9
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	39	33	35	56	66
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>39</b>	<b>33</b>	<b>35</b>	<b>56</b>	<b>66</b>
FTE	0.6	0.4	0.4	0.7	0.7
<b>Escalation to 2013\$</b>					
Labor	28	17	11	8	0
Non-Labor	-14	6	4	10	0
NSE	0	0	0	0	0
<b>Total</b>	<b>14</b>	<b>23</b>	<b>15</b>	<b>18</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	318	260	285	452	485
Non-Labor	-161	92	114	605	298
NSE	0	0	0	0	0
<b>Total</b>	<b>156</b>	<b>352</b>	<b>398</b>	<b>1,057</b>	<b>782</b>
FTE	4.2	2.8	3.0	5.0	4.6

\* 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: 2100-3086.000 - CUSTOMER ASSISTANCE AND RELATIONSHIP

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-39	-52	-62	-62	-3
Non-Labor	-312	-6	-9	-9	-67
NSE	0	0	0	0	0
<b>Total</b>	<b>-351</b>	<b>-58</b>	<b>-71</b>	<b>-71</b>	<b>-70</b>
FTE	0.4	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	-42	-3	0	0.0	CCTR Transf	To 2200-2405.000	FFIGUERO20131 031115221130
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-10	-3	0	0.0	CCTR Transf	To 2200-2468.000	FFIGUERO20131 031115706627
IT Employee Transfer from SDGE to SCG as of 2013							
2009	12	-306	0	0.4	1-Sided Adj	N/A	LBROUGH201311 22145638913
Adjust to 2013 Outlook (as of Nov, 2013)							
<b>2009 Total</b>	<b>-39</b>	<b>-312</b>	<b>0</b>	<b>0.4</b>			

2010	-42	-3	0	0.0	CCTR Transf	To 2200-2405.000	FFIGUERO20131 031115309610
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-10	-3	0	0.0	CCTR Transf	To 2200-2468.000	FFIGUERO20131 031115920343
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-0.695	-0.006	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 134544737
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2010 Total</b>	<b>-52</b>	<b>-6</b>	<b>0</b>	<b>0.0</b>			

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	-42	-3	0	0.0	CCTR Transf	To 2200-2405.000	FFIGUERO20131 031115345383
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-20	-6	0	0.0	CCTR Transf	To 2200-2468.000	FFIGUERO20131 101101030463
IT Employee Transfer from SDGE to SCG as of 2013							
2011	0	-0.160	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 140502083
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2011 Total</b>	<b>-62</b>	<b>-9</b>	<b>0</b>	<b>0.0</b>			
2012	-42	-3	0	0.0	CCTR Transf	To 2200-2405.000	FFIGUERO20131 101100730283
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-20	-6	0	0.0	CCTR Transf	To 2200-2468.000	FFIGUERO20131 101101219313
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-62</b>	<b>-9</b>	<b>0</b>	<b>0.0</b>			
2013	-3	-67	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 142058040
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2013 Total</b>	<b>-3</b>	<b>-67</b>	<b>0</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

**Beginning of Workpaper**  
**2100-3087.000 - UTILITY OPS SW DEVELOP SERVICES DIRECTOR**

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Area: INFORMATION TECHNOLOGY  
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 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3087.000 - UTILITY OPS SW DEVELOP SERVICES DIRECTOR

**Activity Description:**

This cost center includes the labor and associated non labor for the Director of SDGE Application Services

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		150	362	125	106	375	375	556	737	
Non-Labor		22	-6	41	47	27	27	57	87	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>172</b>	<b>356</b>	<b>165</b>	<b>153</b>	<b>402</b>	<b>402</b>	<b>613</b>	<b>824</b>	
FTE		1.3	-2.1	1.1	0.8	3.0	3.0	4.8	6.6	

*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	5	0	0	5	0.00	5	0	0	5	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	370	27	0	397	3.00	370	27	0	397	3.00
<b>Total Incurred</b>	<b>375</b>	<b>27</b>	<b>0</b>	<b>402</b>	<b>3.00</b>	<b>375</b>	<b>27</b>	<b>0</b>	<b>402</b>	<b>3.00</b>
<b>% Allocation</b>										
Retained	97.88%	97.88%				97.88%	97.88%			
SEU	2.12%	2.12%				2.12%	2.12%			
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	5	0	0	5	0.00	5	0	0	5	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	551	57	0	608	4.80	732	87	0	819	6.60
<b>Total Incurred</b>	<b>556</b>	<b>57</b>	<b>0</b>	<b>613</b>	<b>4.80</b>	<b>737</b>	<b>87</b>	<b>0</b>	<b>824</b>	<b>6.60</b>
<b>% Allocation</b>										
Retained	97.88%	97.88%				97.88%	97.88%			
SEU	2.12%	2.12%				2.12%	2.12%			
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**

Weighted average of department cost centers. This is the director's cost center which supports the entire organization.

**Cost Center Allocation Percentage for 2014**

Weighted average of department cost centers. This is the director's cost center which supports the entire organization.

**Cost Center Allocation Percentage for 2015**

Weighted average of department cost centers. This is the director's cost center which supports the entire organization.

**Cost Center Allocation Percentage for 2016**

Weighted average of department cost centers. This is the director's cost center which supports the entire organization.

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	375	375	375	0	181	362	375	556	737
Non-Labor	Base YR Rec	27	27	27	0	30	60	27	57	87
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>402</b>	<b>402</b>	<b>402</b>	<b>0</b>	<b>211</b>	<b>422</b>	<b>402</b>	<b>613</b>	<b>824</b>
FTE	Base YR Rec	3.0	3.0	3.0	0.0	1.8	3.6	3.0	4.8	6.6

**Forecast Adjustment Details:**

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

2015                      181                      30                      0                      211                      1.8      1-Sided Adj

2.9 incremental FTEs to support new IT initiatives across the company in 2015 and in 2016. Assumes 62% O&C ratio and \$100k average salary plus \$10k per employee (3 employees) in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

<b>2015 Total</b>	<b>181</b>	<b>30</b>	<b>0</b>	<b>211</b>	<b>1.8</b>	
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2016                      181                      30                      0                      211                      1.8      1-Sided Adj

2.9 incremental FTEs to support new IT initiatives across the company in 2015 and in 2016. Assumes 62% O&C ratio and \$100k average salary plus \$10k per employee (3 employees) in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

2016                      181                      30                      0                      211                      1.8      1-Sided Adj

*Note: Totals may include rounding differences.*

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<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
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2.9 incremental FTEs to support new IT initiatives across the company in 2015 and in 2016. Assumes 62% O&C ratio and \$100k average salary plus \$10k per employee (3 employees) in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

<b>2016 Total</b>	<b>362</b>	<b>60</b>	<b>0</b>	<b>422</b>	<b>3.6</b>	
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*Note: Totals may include rounding differences.*

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Category-Sub: 1. Applications  
Cost Center: 2100-3087.000 - UTILITY OPS SW DEVELOP SERVICES DIRECTOR

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	119	65	104	91	324
Non-Labor	20	18	39	47	27
NSE	0	0	0	0	0
<b>Total</b>	<b>139</b>	<b>83</b>	<b>144</b>	<b>137</b>	<b>350</b>
FTE	1.1	0.6	0.9	0.6	2.6
<b>Adjustments (Nominal \$) **</b>					
Labor	0	227	0	0	0
Non-Labor	0	-24	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>203</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	-2.4	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	119	292	104	91	324
Non-Labor	20	-5	39	47	27
NSE	0	0	0	0	0
<b>Total</b>	<b>139</b>	<b>286</b>	<b>144</b>	<b>137</b>	<b>350</b>
FTE	1.1	-1.8	0.9	0.6	2.6
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	18	46	15	13	51
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>18</b>	<b>46</b>	<b>15</b>	<b>13</b>	<b>51</b>
FTE	0.2	-0.3	0.1	0.1	0.4
<b>Escalation to 2013\$</b>					
Labor	13	24	5	2	0
Non-Labor	2	0	2	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>15</b>	<b>24</b>	<b>6</b>	<b>3</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	150	362	125	106	375
Non-Labor	22	-6	41	47	27
NSE	0	0	0	0	0
<b>Total</b>	<b>172</b>	<b>356</b>	<b>165</b>	<b>153</b>	<b>402</b>
FTE	1.3	-2.1	1.0	0.7	3.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3087.000 - UTILITY OPS SW DEVELOP SERVICES DIRECTOR

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	227	0	0	0
Non-Labor	0	-24	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>203</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	-2.4	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	227	-24	0	-2.4	1-Sided Adj	N/A	LBROUGH201311
Adjust to 2013 Outlook (as of Nov, 2013)							22145953743
<b>2010 Total</b>	<b>227</b>	<b>-24</b>	<b>0</b>	<b>-2.4</b>			
<b>2011 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2012 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3088.000 - SOFTWARE DEV - WORK MEAS SYSTEMS**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3088.000 - SOFTWARE DEV - WORK MEAS SYSTEMS

**Activity Description:**

This cost center represents support services for a broad range of client organizations, including: Gas Operations / Distribution, Construction, Generation and Environmental Services. The application services are based on several enterprise systems, including: SAP Plant Maintenance and Click Scheduling and Mobility. In addition, the legacy support services include Distribution Planning Scheduling System (DPSS).

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		162	-371	120	195	158	158	158	158	
Non-Labor		190	52	170	78	30	30	30	30	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>352</b>	<b>-318</b>	<b>290</b>	<b>274</b>	<b>188</b>	<b>188</b>	<b>188</b>	<b>188</b>	
FTE		3.7	-2.0	2.1	2.1	1.6	1.6	1.6	1.6	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3088.000 - SOFTWARE DEV - WORK MEAS SYSTEMS

**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	0	0	0	0.00	0	0	0	0	0.00
Directly Allocated	0	1	0	1	0.00	0	1	0	1	0.00
Subj. To % Alloc.	158	29	0	187	1.59	158	29	0	187	1.59
<b>Total Incurred</b>	<b>158</b>	<b>30</b>	<b>0</b>	<b>188</b>	<b>1.59</b>	<b>158</b>	<b>30</b>	<b>0</b>	<b>188</b>	<b>1.59</b>
<b>% Allocation</b>										
Retained	44.32%	44.32%				44.45%	44.45%			
SEU	55.68%	55.68%				55.55%	55.55%			
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	1	0	1	0.00	0	1	0	1	0.00
Subj. To % Alloc.	158	29	0	187	1.59	158	29	0	187	1.59
<b>Total Incurred</b>	<b>158</b>	<b>30</b>	<b>0</b>	<b>188</b>	<b>1.59</b>	<b>158</b>	<b>30</b>	<b>0</b>	<b>188</b>	<b>1.59</b>
<b>% Allocation</b>										
Retained	44.45%	44.45%				44.45%	44.45%			
SEU	55.55%	55.55%				55.55%	55.55%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3088.000 - SOFTWARE DEV - WORK MEAS SYSTEMS

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

**Cost Center Allocation Percentage for 2013**

Allocations are based on a labor study of applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. The applications are split across BU's based on assumptions. A labor study of applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

**Cost Center Allocation Percentage for 2014**

Allocations are based on a labor study of applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. The applications are split across BU's based on assumptions. A labor study of applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

**Cost Center Allocation Percentage for 2015**

Allocations are based on a labor study of applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. The applications are split across BU's based on assumptions. A labor study of applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

**Cost Center Allocation Percentage for 2016**

Allocations are based on a labor study of applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. The applications are split across BU's based on assumptions. A labor study of applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3088.000 - SOFTWARE DEV - WORK MEAS SYSTEMS

**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	158	158	158	0	0	0	158	158	158
Non-Labor	Base YR Rec	30	30	30	0	0	0	30	30	30
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>188</b>	<b>188</b>	<b>188</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>188</b>	<b>188</b>	<b>188</b>
FTE	Base YR Rec	1.6	1.6	1.6	0.0	0.0	0.0	1.6	1.6	1.6

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3088.000 - SOFTWARE DEV - WORK MEAS SYSTEMS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	826	399	855	989	136
Non-Labor	204	79	197	113	30
NSE	0	0	0	0	0
<b>Total</b>	<b>1,030</b>	<b>478</b>	<b>1,052</b>	<b>1,102</b>	<b>166</b>
FTE	9.1	4.3	8.8	9.8	1.4
<b>Adjustments (Nominal \$) **</b>					
Labor	-698	-698	-754	-821	0
Non-Labor	-30	-30	-33	-36	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-728</b>	<b>-728</b>	<b>-787</b>	<b>-857</b>	<b>0</b>
FTE	-6.0	-6.0	-7.0	-8.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	128	-299	101	168	136
Non-Labor	174	49	164	77	30
NSE	0	0	0	0	0
<b>Total</b>	<b>302</b>	<b>-250</b>	<b>265</b>	<b>245</b>	<b>166</b>
FTE	3.1	-1.7	1.8	1.8	1.4
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	20	-48	15	24	22
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>20</b>	<b>-48</b>	<b>15</b>	<b>24</b>	<b>22</b>
FTE	0.5	-0.3	0.3	0.3	0.2
<b>Escalation to 2013\$</b>					
Labor	14	-25	4	3	0
Non-Labor	16	3	6	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>30</b>	<b>-21</b>	<b>11</b>	<b>5</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	162	-371	120	195	158
Non-Labor	190	52	170	78	30
NSE	0	0	0	0	0
<b>Total</b>	<b>352</b>	<b>-318</b>	<b>290</b>	<b>274</b>	<b>188</b>
FTE	3.6	-2.0	2.1	2.1	1.6

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3088.000 - SOFTWARE DEV - WORK MEAS SYSTEMS

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-698	-698	-754	-821	0
Non-Labor	-30	-30	-33	-36	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-728</b>	<b>-728</b>	<b>-787</b>	<b>-857</b>	<b>0</b>
FTE	-6.0	-6.0	-7.0	-8.0	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	-698	-30	0	-6.0	CCTR Transf	To 2200-2445.000	FFIGUERO20131 031121705673
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-698</b>	<b>-30</b>	<b>0</b>	<b>-6.0</b>			
2010	-698	-30	0	-6.0	CCTR Transf	To 2200-2445.000	FFIGUERO20131 031122049517
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-698</b>	<b>-30</b>	<b>0</b>	<b>-6.0</b>			
2011	-754	-33	0	-7.0	CCTR Transf	To 2200-2445.000	FFIGUERO20131 031122157597
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-754</b>	<b>-33</b>	<b>0</b>	<b>-7.0</b>			
2012	-821	-36	0	-8.0	CCTR Transf	To 2200-2445.000	FFIGUERO20131 031122351440
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-821</b>	<b>-36</b>	<b>0</b>	<b>-8.0</b>			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3088.000 - SOFTWARE DEV - WORK MEAS SYSTEMS

<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 Total	0	0	0	0.0			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3089.000 - BUSINESS INTELLIGENCE GROUP**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3089.000 - BUSINESS INTELLIGENCE GROUP

**Activity Description:**

This cost center supports IT business Intelligence, including enterprise-wide software support, BI strategy and project services, as well as project management

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
	Labor	783	899	991	696	772	772	772	772	
	Non-Labor	137	19	60	170	221	221	221	221	
	NSE	0	0	0	0	0	0	0	0	
	<b>Total</b>	<b>920</b>	<b>918</b>	<b>1,051</b>	<b>865</b>	<b>992</b>	<b>992</b>	<b>992</b>	<b>992</b>	
	FTE	7.6	8.8	9.5	8.8	7.3	7.3	7.3	7.3	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3089.000 - BUSINESS INTELLIGENCE GROUP

**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	-1	0	2	0.02	3	-1	0	2	0.02
Directly Allocated	-3	7	0	4	-0.02	-3	7	0	4	-0.02
Subj. To % Alloc.	772	215	0	987	7.33	771	215	0	986	7.33
<b>Total Incurred</b>	<b>772</b>	<b>221</b>	<b>0</b>	<b>993</b>	<b>7.33</b>	<b>771</b>	<b>221</b>	<b>0</b>	<b>992</b>	<b>7.33</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
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	-1	0	2	0.02	3	-1	0	2	0.02
Directly Allocated	-3	7	0	4	-0.02	-3	7	0	4	-0.02
Subj. To % Alloc.	771	215	0	986	7.33	771	215	0	986	7.33
<b>Total Incurred</b>	<b>771</b>	<b>221</b>	<b>0</b>	<b>992</b>	<b>7.33</b>	<b>771</b>	<b>221</b>	<b>0</b>	<b>992</b>	<b>7.33</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3089.000 - BUSINESS INTELLIGENCE GROUP

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3089.000 - BUSINESS INTELLIGENCE GROUP

**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	772	772	772	0	0	0	772	772	772
Non-Labor	Base YR Rec	221	221	221	0	0	0	221	221	221
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>992</b>	<b>992</b>	<b>992</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>992</b>	<b>992</b>	<b>992</b>
FTE	Base YR Rec	7.3	7.3	7.3	0.0	0.0	0.0	7.3	7.3	7.3

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3089.000 - BUSINESS INTELLIGENCE GROUP

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	961	1,065	1,172	991	667
Non-Labor	149	42	82	557	221
NSE	0	0	0	0	0
<b>Total</b>	<b>1,109</b>	<b>1,107</b>	<b>1,254</b>	<b>1,548</b>	<b>887</b>
FTE	9.5	10.5	11.2	9.4	6.2
<b>Adjustments (Nominal \$) **</b>					
Labor	-341	-341	-341	-394	0
Non-Labor	-24	-24	-24	-390	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-365</b>	<b>-365</b>	<b>-365</b>	<b>-784</b>	<b>0</b>
FTE	-3.0	-3.0	-3.0	-1.8	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	620	724	831	597	666
Non-Labor	125	18	58	167	221
NSE	0	0	0	0	0
<b>Total</b>	<b>745</b>	<b>742</b>	<b>889</b>	<b>764</b>	<b>887</b>
FTE	6.5	7.5	8.2	7.6	6.2
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	96	115	122	87	106
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>96</b>	<b>115</b>	<b>122</b>	<b>87</b>	<b>106</b>
FTE	1.1	1.3	1.3	1.2	1.1
<b>Escalation to 2013\$</b>					
Labor	68	59	37	12	0
Non-Labor	12	1	2	3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>80</b>	<b>61</b>	<b>39</b>	<b>15</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	783	899	991	696	772
Non-Labor	137	19	60	170	221
NSE	0	0	0	0	0
<b>Total</b>	<b>920</b>	<b>918</b>	<b>1,051</b>	<b>865</b>	<b>992</b>
FTE	7.6	8.8	9.5	8.8	7.3

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3089.000 - BUSINESS INTELLIGENCE GROUP

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-341	-341	-341	-394	-0.457
Non-Labor	-24	-24	-24	-390	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-365</b>	<b>-365</b>	<b>-365</b>	<b>-784</b>	<b>-0.457</b>
FTE	-3.0	-3.0	-3.0	-1.8	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	-299	-21	0	-3.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031123118437
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-42	-3	0	0.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 101114814200
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-341</b>	<b>-24</b>	<b>0</b>	<b>-3.0</b>			
2010	-299	-21	0	-3.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031123218627
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-42	-3	0	0.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 101114858840
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-341</b>	<b>-24</b>	<b>0</b>	<b>-3.0</b>			
2011	-299	-21	0	-3.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031123321693
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-42	-3	0	0.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 101114929203
IT Employee Transfer from SDGE to SCG as of 2013							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3089.000 - BUSINESS INTELLIGENCE GROUP

<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>-341</b>	<b>-24</b>	<b>0</b>	<b>-3.0</b>			
2012	-299	-21	0	-3.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031123410370
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-42	-3	0	0.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 101115002737
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-53	0	0	1.2	1-Sided Adj	N/A	LBROUGH201311 22150200560
Adjust to 2013 Outlook (as of Nov, 2013)							
2012	0	-366	0	0.0	1-Sided Adj	N/A	LBROUGH201311 22150228420
Adjust to 2013 Outlook (as of Nov, 2013)							
<b>2012 Total</b>	<b>-394</b>	<b>-390</b>	<b>0</b>	<b>-1.8</b>			
2013	-0.457	0	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 142151110
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2013 Total</b>	<b>-0.457</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

**Beginning of Workpaper**  
**2100-3091.000 - SOFTWARE DEV - DATABASE ADMINISTRATOR**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3091.000 - SOFTWARE DEV - DATABASE ADMINISTRATOR

**Activity Description:**

This cost center provides maintenance and enhancement support for system wide database administration.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		1,075	1,046	1,137	1,148	1,299	1,299	1,299	1,299	
Non-Labor		389	394	11	198	3,069	3,257	3,683	4,752	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1,463</b>	<b>1,440</b>	<b>1,148</b>	<b>1,346</b>	<b>4,368</b>	<b>4,556</b>	<b>4,982</b>	<b>6,051</b>	
FTE		10.0	9.6	10.4	10.1	11.0	11.0	11.0	11.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3091.000 - SOFTWARE DEV - DATABASE ADMINISTRATOR

**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	5	0	0	5	0.04	5	0	0	5	0.04
Directly Allocated	0	238	0	238	0.00	0	238	0	238	0.00
Subj. To % Alloc.	1,294	2,831	0	4,125	10.97	1,294	3,019	0	4,313	10.97
<b>Total Incurred</b>	<b>1,299</b>	<b>3,069</b>	<b>0</b>	<b>4,368</b>	<b>11.01</b>	<b>1,299</b>	<b>3,257</b>	<b>0</b>	<b>4,556</b>	<b>11.01</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				38.08%	38.08%			
SEU	54.70%	54.70%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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	5	0	0	5	0.04	5	0	0	5	0.04
Directly Allocated	0	238	0	238	0.00	0	238	0	238	0.00
Subj. To % Alloc.	1,294	3,445	0	4,739	10.97	1,294	4,514	0	5,808	10.97
<b>Total Incurred</b>	<b>1,299</b>	<b>3,683</b>	<b>0</b>	<b>4,982</b>	<b>11.01</b>	<b>1,299</b>	<b>4,752</b>	<b>0</b>	<b>6,051</b>	<b>11.01</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
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Cost Center: 2100-3091.000 - SOFTWARE DEV - DATABASE ADMINISTRATOR

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

**Cost Center Allocation Percentage for 2013**

The percentage calculation assumptions are based on the total number of LAN login ID's for SDGE, SCG and parent. This cost center provides database administration services for all SDGE, SCG and parent employees. Using LAN login ID counts for each respective company accurately determines the use of services by each company.

**Cost Center Allocation Percentage for 2014**

The percentage calculation assumptions are based on the total number of LAN login ID's for SDGE, SCG and parent. This cost center provides database administration services for all SDGE, SCG and parent employees. Using LAN login ID counts for each respective company accurately determines the use of services by each company.

**Cost Center Allocation Percentage for 2015**

The percentage calculation assumptions are based on the total number of LAN login ID's for SDGE, SCG and parent. This cost center provides database administration services for all SDGE, SCG and parent employees. Using LAN login ID counts for each respective company accurately determines the use of services by each company.

**Cost Center Allocation Percentage for 2016**

The percentage calculation assumptions are based on the total number of LAN login ID's for SDGE, SCG and parent. This cost center provides database administration services for all SDGE, SCG and parent employees. Using LAN login ID counts for each respective company accurately determines the use of services by each company.

*Note: Totals may include rounding differences.*



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 Category: A. Applications  
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 Cost Center: 2100-3091.000 - SOFTWARE DEV - DATABASE ADMINISTRATOR

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	1,299	1,299	1,299	0	0	0	1,299	1,299	1,299
Non-Labor	Base YR Rec	3,069	3,069	3,069	188	614	1,683	3,257	3,683	4,752
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>4,368</b>	<b>4,368</b>	<b>4,368</b>	<b>188</b>	<b>614</b>	<b>1,683</b>	<b>4,556</b>	<b>4,982</b>	<b>6,051</b>
FTE	Base YR Rec	11.0	11.0	11.0	0.0	0.0	0.0	11.0	11.0	11.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>
2014	0	188	0	188	0.0	1-Sided Adj

6.3% contract escalation based upon a combination of historical averages, warranty expirations, and business-driven growth.

<b>2014 Total</b>	<b>0</b>	<b>188</b>	<b>0</b>	<b>188</b>	<b>0.0</b>	
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2015	0	614	0	614	0.0	1-Sided Adj
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8% escalation in 2015 & 2016 based upon a combination of historical averages, warranty expirations, and business-driven growth.

<b>2015 Total</b>	<b>0</b>	<b>614</b>	<b>0</b>	<b>614</b>	<b>0.0</b>	
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2016	0	683	0	683	0.0	1-Sided Adj
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8% escalation in 2015 & 2016 based upon a combination of historical averages, warranty expirations, and business-driven growth.

2016	0	1,000	0	1,000	0.0	1-Sided Adj
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Estimated contractual obligation to support Oracle database software. Estimate of incremental maintenance costs to support the User License Agreement (ULA) extension, anticipated in 2016. Growth driven by business expansion, project capitalization, and thru organic growth of existing database assets.

<b>2016 Total</b>	<b>0</b>	<b>1,683</b>	<b>0</b>	<b>1,683</b>	<b>0.0</b>	
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3091.000 - SOFTWARE DEV - DATABASE ADMINISTRATOR

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	1,504	1,580	1,691	1,723	1,121
Non-Labor	382	398	41	225	3,069
NSE	0	0	0	0	0
<b>Total</b>	<b>1,886</b>	<b>1,978</b>	<b>1,732</b>	<b>1,948</b>	<b>4,190</b>
FTE	13.6	14.2	14.9	14.7	9.4
<b>Adjustments (Nominal \$) **</b>					
Labor	-654	-738	-738	-738	0
Non-Labor	-27	-30	-30	-30	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-681</b>	<b>-768</b>	<b>-768</b>	<b>-768</b>	<b>0</b>
FTE	-5.0	-6.0	-6.0	-6.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	850	843	953	985	1,121
Non-Labor	355	368	11	195	3,069
NSE	0	0	0	0	0
<b>Total</b>	<b>1,205</b>	<b>1,210</b>	<b>964</b>	<b>1,180</b>	<b>4,190</b>
FTE	8.6	8.2	8.9	8.7	9.4
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	131	134	140	143	178
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>131</b>	<b>134</b>	<b>140</b>	<b>143</b>	<b>178</b>
FTE	1.4	1.4	1.5	1.4	1.6
<b>Escalation to 2013\$</b>					
Labor	93	69	43	20	0
Non-Labor	34	26	0	3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>127</b>	<b>95</b>	<b>43</b>	<b>23</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	1,075	1,046	1,137	1,148	1,299
Non-Labor	389	394	11	198	3,069
NSE	0	0	0	0	0
<b>Total</b>	<b>1,463</b>	<b>1,440</b>	<b>1,148</b>	<b>1,346</b>	<b>4,368</b>
FTE	10.0	9.6	10.4	10.1	11.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3091.000 - SOFTWARE DEV - DATABASE ADMINISTRATOR

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-654	-738	-738	-738	0
Non-Labor	-27	-30	-30	-30	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-681</b>	<b>-768</b>	<b>-768</b>	<b>-768</b>	<b>0</b>
FTE	-5.0	-6.0	-6.0	-6.0	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	-654	-27	0	-5.0	CCTR Transf	To 2200-2447.000	FFIGUERO20131 031123631930
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-654</b>	<b>-27</b>	<b>0</b>	<b>-5.0</b>			
2010	-738	-30	0	-6.0	CCTR Transf	To 2200-2447.000	FFIGUERO20131 031123733517
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-738</b>	<b>-30</b>	<b>0</b>	<b>-6.0</b>			
2011	-738	-30	0	-6.0	CCTR Transf	To 2200-2447.000	FFIGUERO20131 031123833363
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-738</b>	<b>-30</b>	<b>0</b>	<b>-6.0</b>			
2012	-738	-30	0	-6.0	CCTR Transf	To 2200-2447.000	FFIGUERO20131 031123958550
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-738</b>	<b>-30</b>	<b>0</b>	<b>-6.0</b>			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3091.000 - SOFTWARE DEV - DATABASE ADMINISTRATOR

<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>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3093.000 - SOFTWARE DEV - WORK MEAS & ELECTRIC SYST**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3093.000 - SOFTWARE DEV - WORK MEAS & ELECTRIC SYST

**Activity Description:**

This cost center supports GIS and CAD Applications services for both SDGE & SCG.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		635	285	262	356	546	546	546	546	
Non-Labor		268	246	106	481	469	469	469	469	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>903</b>	<b>531</b>	<b>367</b>	<b>836</b>	<b>1,015</b>	<b>1,015</b>	<b>1,015</b>	<b>1,015</b>	
FTE		5.8	2.5	2.7	3.1	5.6	5.6	5.6	5.6	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3093.000 - SOFTWARE DEV - WORK MEAS & ELECTRIC SYST

**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	0	0	0	0.00	0	0	0	0	0.00
Directly Allocated	0	3	0	3	0.00	0	3	0	3	0.00
Subj. To % Alloc.	547	466	0	1,013	5.60	547	466	0	1,013	5.60
<b>Total Incurred</b>	<b>547</b>	<b>469</b>	<b>0</b>	<b>1,016</b>	<b>5.60</b>	<b>547</b>	<b>469</b>	<b>0</b>	<b>1,016</b>	<b>5.60</b>
<b>% Allocation</b>										
Retained	67.64%	67.64%				63.00%	63.00%			
SEU	32.36%	32.36%				37.00%	37.00%			
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	3	0	3	0.00	0	3	0	3	0.00
Subj. To % Alloc.	547	466	0	1,013	5.60	547	466	0	1,013	5.60
<b>Total Incurred</b>	<b>547</b>	<b>469</b>	<b>0</b>	<b>1,016</b>	<b>5.60</b>	<b>547</b>	<b>469</b>	<b>0</b>	<b>1,016</b>	<b>5.60</b>
<b>% Allocation</b>										
Retained	63.00%	63.00%				63.00%	63.00%			
SEU	37.00%	37.00%				37.00%	37.00%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3093.000 - SOFTWARE DEV - WORK MEAS & ELECTRIC SYST

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

**Cost Center Allocation Percentage for 2013**

Allocations are based on a labor study of all applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

**Cost Center Allocation Percentage for 2014**

Allocations are based on a labor study of all applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

**Cost Center Allocation Percentage for 2015**

Allocations are based on a labor study of all applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

**Cost Center Allocation Percentage for 2016**

Allocations are based on a labor study of all applications that will be supported by this cost center. FTE requirements are then assigned and using an average labor cost for Shared Apps, a total support cost for each application is derived. A labor study of all applications used by this cost center is appropriate as it defines how the resources in the department will be allocated.

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3093.000 - SOFTWARE DEV - WORK MEAS & ELECTRIC SYST

**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	546	546	546	0	0	0	546	546	546
Non-Labor	Base YR Rec	469	469	469	0	0	0	469	469	469
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>1,015</b>	<b>1,015</b>	<b>1,015</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,015</b>	<b>1,015</b>	<b>1,015</b>
FTE	Base YR Rec	5.6	5.6	5.6	0.0	0.0	0.0	5.6	5.6	5.6

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3093.000 - SOFTWARE DEV - WORK MEAS & ELECTRIC SYST

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	670	397	432	571	472
Non-Labor	254	239	114	487	469
NSE	0	0	0	0	0
<b>Total</b>	<b>924</b>	<b>636</b>	<b>546</b>	<b>1,059</b>	<b>941</b>
FTE	7.0	4.1	4.3	5.6	4.8
<b>Adjustments (Nominal \$) **</b>					
Labor	-167	-167	-213	-266	0
Non-Labor	-9	-9	-12	-15	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-176</b>	<b>-176</b>	<b>-225</b>	<b>-281</b>	<b>0</b>
FTE	-2.0	-2.0	-2.0	-3.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	502	229	220	305	472
Non-Labor	245	230	102	472	469
NSE	0	0	0	0	0
<b>Total</b>	<b>747</b>	<b>459</b>	<b>321</b>	<b>778</b>	<b>941</b>
FTE	5.0	2.1	2.3	2.6	4.8
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	78	37	32	44	75
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>78</b>	<b>37</b>	<b>32</b>	<b>44</b>	<b>75</b>
FTE	0.8	0.4	0.4	0.4	0.8
<b>Escalation to 2013\$</b>					
Labor	55	19	10	6	0
Non-Labor	23	16	4	8	0
NSE	0	0	0	0	0
<b>Total</b>	<b>78</b>	<b>35</b>	<b>14</b>	<b>14</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	635	285	262	356	546
Non-Labor	268	246	106	481	469
NSE	0	0	0	0	0
<b>Total</b>	<b>903</b>	<b>531</b>	<b>367</b>	<b>836</b>	<b>1,015</b>
FTE	5.8	2.5	2.7	3.0	5.6

\* 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.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3093.000 - SOFTWARE DEV - WORK MEAS & ELECTRIC SYST

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-167	-167	-213	-266	0
Non-Labor	-9	-9	-12	-15	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-176</b>	<b>-176</b>	<b>-225</b>	<b>-281</b>	<b>0</b>
FTE	-2.0	-2.0	-2.0	-3.0	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	-167	-9	0	-2.0	CCTR Transf	To 2200-2446.000	FFIGUERO20131 031124151380
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-167</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
2010	-167	-9	0	-2.0	CCTR Transf	To 2200-2446.000	FFIGUERO20131 031124251980
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-167</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
2011	-213	-12	0	-2.0	CCTR Transf	To 2200-2446.000	FFIGUERO20131 031124340870
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-213</b>	<b>-12</b>	<b>0</b>	<b>-2.0</b>			
2012	-266	-15	0	-3.0	CCTR Transf	To 2200-2446.000	FFIGUERO20131 031124435723
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-266</b>	<b>-15</b>	<b>0</b>	<b>-3.0</b>			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3093.000 - SOFTWARE DEV - WORK MEAS & ELECTRIC SYST

<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>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3102.000 - INFRASTRUCTURE ENG & OPS DIRECTOR**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3102.000 - INFRASTRUCTURE ENG & OPS DIRECTOR

**Activity Description:**

The infrastructure and engineering operations director cost center manages the work activities and prioritization of the Shared Applications department for project, operational and system support activities.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		260	275	234	238	263	263	641	1,020	
Non-Labor		46	37	35	36	24	24	64	104	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>306</b>	<b>312</b>	<b>269</b>	<b>273</b>	<b>287</b>	<b>287</b>	<b>705</b>	<b>1,124</b>	
FTE		2.0	2.3	1.5	1.5	2.1	2.1	5.8	9.6	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3102.000 - INFRASTRUCTURE ENG & OPS DIRECTOR

**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	7	1	0	8	0.00	7	1	0	8	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	256	23	0	279	2.10	256	23	0	279	2.11
<b>Total Incurred</b>	<b>263</b>	<b>24</b>	<b>0</b>	<b>287</b>	<b>2.10</b>	<b>263</b>	<b>24</b>	<b>0</b>	<b>287</b>	<b>2.11</b>
<b>% Allocation</b>										
Retained	45.14%	45.14%				43.04%	43.04%			
SEU	51.13%	51.13%				52.93%	52.93%			
CORP	3.73%	3.73%				4.03%	4.03%			
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	7	1	0	8	0.00	7	1	0	8	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	634	63	0	697	5.81	1,013	103	0	1,116	9.61
<b>Total Incurred</b>	<b>641</b>	<b>64</b>	<b>0</b>	<b>705</b>	<b>5.81</b>	<b>1,020</b>	<b>104</b>	<b>0</b>	<b>1,124</b>	<b>9.61</b>
<b>% Allocation</b>										
Retained	43.04%	43.04%				43.04%	43.04%			
SEU	52.93%	52.93%				52.93%	52.93%			
CORP	4.03%	4.03%				4.03%	4.03%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3102.000 - INFRASTRUCTURE ENG & OPS DIRECTOR

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

**Cost Center Allocation Percentage for 2013**

Allocations are based on a weighted average of dept allocations for the cost centers in this department that provide application support across the various companies. The weighted average of all Dept. cost centers Shared Service Allocations reflects the level of support provided to each affiliate by this cost center.

**Cost Center Allocation Percentage for 2014**

Allocations are based on a weighted average of dept allocations for the cost centers in this department that provide application support across the various companies. The weighted average of all Dept. cost centers Shared Service Allocations reflects the level of support provided to each affiliate by this cost center.

**Cost Center Allocation Percentage for 2015**

Allocations are based on a weighted average of dept allocations for the cost centers in this department that provide application support across the various companies. The weighted average of all Dept. cost centers Shared Service Allocations reflects the level of support provided to each affiliate by this cost center.

**Cost Center Allocation Percentage for 2016**

Allocations are based on a weighted average of dept allocations for the cost centers in this department that provide application support across the various companies. The weighted average of all Dept. cost centers Shared Service Allocations reflects the level of support provided to each affiliate by this cost center.

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3102.000 - INFRASTRUCTURE ENG & OPS DIRECTOR

**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	263	263	263	0	378	757	263	641	1,020
Non-Labor	Base YR Rec	24	24	24	0	40	80	24	64	104
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>287</b>	<b>287</b>	<b>287</b>	<b>0</b>	<b>418</b>	<b>837</b>	<b>287</b>	<b>705</b>	<b>1,124</b>
FTE	Base YR Rec	2.1	2.1	2.1	0.0	3.7	7.5	2.1	5.8	9.6

**Forecast Adjustment Details:**

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

2015                      184                      20                      0                      204                      1.8      1-Sided Adj

2.8 incremental FTEs to support new IT initiatives across the company in 2015 and in 2016. Assumes 66% O&C ratio and \$100k average salary plus \$10k per employee (3 employees at \$10k in 2015 and 2 employees at \$10k in 2016) in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

2015                      194                      20                      0                      214                      1.9      1-Sided Adj

3.9 incremental FTEs to support 3 software developers and 1 other FTE supporting recently completed capital projects in 2015 and in 2016. Assumes 97% O&C ratio and \$100k average salary plus \$10k per employee (4 employees) in associated NL costs.

<b>2015 Total</b>	<b>378</b>	<b>40</b>	<b>0</b>	<b>418</b>	<b>3.7</b>	
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2016                      184                      20                      0                      204                      1.8      1-Sided Adj

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3102.000 - INFRASTRUCTURE ENG & OPS DIRECTOR

<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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2.8 incremental FTEs to support new IT initiatives across the company in 2015 and in 2016. Assumes 66% O&C ratio and \$100k average salary plus \$10k per employee (3 employees at \$10k in 2015 and 2 employees at \$10k in 2016) in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

2016	389	40	0	429	3.9	1-Sided Adj
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3.9 incremental FTEs to support 3 software developers and 1 other FTE supporting recently completed capital projects in 2015 and in 2016. Assumes 97% O&C ratio and \$100k average salary plus \$10k per employee (4 employees) in associated NL costs.

2016	184	20	0	204	1.8	1-Sided Adj
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2.8 incremental FTEs to support new IT initiatives across the company in 2015 and in 2016. Assumes 66% O&C ratio and \$100k average salary plus \$10k per employee (3 employees at \$10k in 2015 and 2 employees at \$10k in 2016) in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

<b>2016 Total</b>	<b>757</b>	<b>80</b>	<b>0</b>	<b>837</b>	<b>7.5</b>	
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3102.000 - INFRASTRUCTURE ENG & OPS DIRECTOR

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	206	221	196	204	227
Non-Labor	42	34	34	35	24
NSE	0	0	0	0	0
<b>Total</b>	<b>248</b>	<b>256</b>	<b>230</b>	<b>239</b>	<b>251</b>
FTE	1.8	1.9	1.3	1.3	1.8
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	206	221	196	204	227
Non-Labor	42	34	34	35	24
NSE	0	0	0	0	0
<b>Total</b>	<b>248</b>	<b>256</b>	<b>230</b>	<b>239</b>	<b>251</b>
FTE	1.8	1.9	1.3	1.3	1.8
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	32	35	29	30	36
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>32</b>	<b>35</b>	<b>29</b>	<b>30</b>	<b>36</b>
FTE	0.3	0.3	0.2	0.2	0.3
<b>Escalation to 2013\$</b>					
Labor	22	18	9	4	0
Non-Labor	4	2	1	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>26</b>	<b>21</b>	<b>10</b>	<b>5</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	260	275	234	238	263
Non-Labor	46	37	35	36	24
NSE	0	0	0	0	0
<b>Total</b>	<b>306</b>	<b>312</b>	<b>269</b>	<b>273</b>	<b>287</b>
FTE	2.1	2.2	1.5	1.5	2.1

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3102.000 - INFRASTRUCTURE ENG & OPS DIRECTOR

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3623.000 - SHARED SOFTWARE DEVELOPMENT CONTRACTS**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3623.000 - SHARED SOFTWARE DEVELOPMENT CONTRACTS

**Activity Description:**

This Cost Center is responsible for paying the maintenance for software product supported by the Shared Software Development department.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		3,195	4,328	4,481	5,997	4,954	4,954	5,350	8,092	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>3,195</b>	<b>4,328</b>	<b>4,481</b>	<b>5,997</b>	<b>4,954</b>	<b>4,954</b>	<b>5,350</b>	<b>8,092</b>	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3623.000 - SHARED SOFTWARE DEVELOPMENT CONTRACTS

**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	0	0	0	0.00	0	0	0	0	0.00
Directly Allocated	0	967	0	967	0.00	0	967	0	967	0.00
Subj. To % Alloc.	0	3,987	0	3,987	0.00	0	3,987	0	3,987	0.00
<b>Total Incurred</b>	<b>0</b>	<b>4,954</b>	<b>0</b>	<b>4,954</b>	<b>0.00</b>	<b>0</b>	<b>4,954</b>	<b>0</b>	<b>4,954</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	45.14%	45.14%				41.13%	41.13%			
SEU	51.13%	51.13%				54.54%	54.54%			
CORP	3.73%	3.73%				4.33%	4.33%			
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	967	0	967	0.00	0	967	0	967	0.00
Subj. To % Alloc.	0	4,383	0	4,383	0.00	0	7,125	0	7,125	0.00
<b>Total Incurred</b>	<b>0</b>	<b>5,350</b>	<b>0</b>	<b>5,350</b>	<b>0.00</b>	<b>0</b>	<b>8,092</b>	<b>0</b>	<b>8,092</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	41.13%	41.13%				41.13%	41.13%			
SEU	54.54%	54.54%				54.54%	54.54%			
CORP	4.33%	4.33%				4.33%	4.33%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
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Cost Center: 2100-3623.000 - SHARED SOFTWARE DEVELOPMENT CONTRACTS

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

**Cost Center Allocation Percentage for 2013**

Allocations are based on a weighted average of the usage of the software by company as provided by client, as well as the shared asset percentages. The weighted average of application usage by company is appropriate because it identifies the value that each organization is receiving from the application.

**Cost Center Allocation Percentage for 2014**

Allocations are based on a weighted average of the usage of the software by company as provided by client, as well as the shared asset percentages. The weighted average of application usage by company is appropriate because it identifies the value that each organization is receiving from the application.

**Cost Center Allocation Percentage for 2015**

Allocations are based on a weighted average of the usage of the software by company as provided by client, as well as the shared asset percentages. The weighted average of application usage by company is appropriate because it identifies the value that each organization is receiving from the application.

**Cost Center Allocation Percentage for 2016**

Allocations are based on a weighted average of the usage of the software by company as provided by client, as well as the shared asset percentages. The weighted average of application usage by company is appropriate because it identifies the value that each organization is receiving from the application.

*Note: Totals may include rounding differences.*



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 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3623.000 - SHARED SOFTWARE DEVELOPMENT CONTRACTS

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	4,954	4,954	4,954	0	396	3,138	4,954	5,350	8,092
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>4,954</b>	<b>4,954</b>	<b>4,954</b>	<b>0</b>	<b>396</b>	<b>3,138</b>	<b>4,954</b>	<b>5,350</b>	<b>8,092</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
2015	0	396	0	396	0.0	1-Sided Adj
<p>8% escalation in 2015 &amp; 2016 based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.</p>						
<b>2015 Total</b>	<b>0</b>	<b>396</b>	<b>0</b>	<b>396</b>	<b>0.0</b>	
2016	0	824	0	824	0.0	1-Sided Adj
<p>8% escalation in 2015 &amp; 2016 based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.</p>						
2016	0	2,314	0	2,314	0.0	1-Sided Adj
<p>Contractual Obligation to support GIS system software. These costs were previously recorded in 2013 and forecasted in 2014-2015 in Electric Operations.</p>						
<b>2016 Total</b>	<b>0</b>	<b>3,138</b>	<b>0</b>	<b>3,138</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3623.000 - SHARED SOFTWARE DEVELOPMENT CONTRACTS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	0
Non-Labor	2,918	4,042	4,313	5,895	4,954
NSE	0	0	0	0	0
<b>Total</b>	<b>2,918</b>	<b>4,042</b>	<b>4,313</b>	<b>5,895</b>	<b>4,954</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	2,918	4,042	4,313	5,895	4,954
NSE	0	0	0	0	0
<b>Total</b>	<b>2,918</b>	<b>4,042</b>	<b>4,313</b>	<b>5,895</b>	<b>4,954</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	277	286	168	102	0
NSE	0	0	0	0	0
<b>Total</b>	<b>277</b>	<b>286</b>	<b>168</b>	<b>102</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	0
Non-Labor	3,195	4,328	4,481	5,997	4,954
NSE	0	0	0	0	0
<b>Total</b>	<b>3,195</b>	<b>4,328</b>	<b>4,481</b>	<b>5,997</b>	<b>4,954</b>
FTE	0.0	0.0	0.0	0.0	0.0

\* After company-wide exclusions of Non-GRC costs  
 \*\* Refer to "Detail of Adjustments to Recorded" page for line item adjustments  
 Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3623.000 - SHARED SOFTWARE DEVELOPMENT CONTRACTS

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3754.000 - CUSTOMER CARE PROJECT OFFICE**

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3754.000 - CUSTOMER CARE PROJECT OFFICE

**Activity Description:**

Plan and develop business cases and project plans for life cycle replacement and new systems to support Customer Operations and Customer Services business SCG capital processes.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		146	214	271	425	1	1	1	1	
Non-Labor		10	182	379	48	5	5	5	5	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>156</b>	<b>396</b>	<b>650</b>	<b>472</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	
FTE		1.5	2.1	2.8	4.3	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3754.000 - CUSTOMER CARE PROJECT OFFICE

**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	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.	1	5	0	6	0.00	1	5	0	6	0.00
<b>Total Incurred</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>6</b>	<b>0.00</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>6</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	0.00%	0.00%				0.00%	0.00%			
SEU	100.00%	100.00%				100.00%	100.00%			
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.	1	5	0	6	0.00	1	5	0	6	0.00
<b>Total Incurred</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>6</b>	<b>0.00</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>6</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	0.00%	0.00%				0.00%	0.00%			
SEU	100.00%	100.00%				100.00%	100.00%			
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**

This cost center supports only the SCG Customer Care capital Project Office through project lifecycle.  
 The systems supported in this cost center and capital work by applications are used by SCG only.

**Cost Center Allocation Percentage for 2014**

This cost center supports only the SCG Customer Care capital Project Office through project lifecycle.  
 The systems supported in this cost center and capital work by applications are used by SCG only.

**Cost Center Allocation Percentage for 2015**

This cost center supports only the SCG Customer Care capital Project Office through project lifecycle.  
 The systems supported in this cost center and capital work by applications are used by SCG only.

**Cost Center Allocation Percentage for 2016**

This cost center supports only the SCG Customer Care capital Project Office through project lifecycle.  
 The systems supported in this cost center and capital work by applications are used by SCG only.

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3754.000 - CUSTOMER CARE PROJECT OFFICE

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	1	1	1	0	0	0	1	1	1
Non-Labor	Base YR Rec	5	5	5	0	0	0	5	5	5
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>6</b>	<b>6</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>6</b>	<b>6</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3754.000 - CUSTOMER CARE PROJECT OFFICE

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	254	338	365	503	1
Non-Labor	16	176	371	53	5
NSE	0	0	0	0	0
<b>Total</b>	<b>269</b>	<b>514</b>	<b>736</b>	<b>556</b>	<b>6</b>
FTE	2.3	3.0	3.4	4.7	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	-138	-166	-138	-138	0
Non-Labor	-6	-6	-6	-6	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-144</b>	<b>-172</b>	<b>-144</b>	<b>-144</b>	<b>0</b>
FTE	-1.0	-1.2	-1.0	-1.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	115	172	227	365	1
Non-Labor	10	170	365	47	5
NSE	0	0	0	0	0
<b>Total</b>	<b>125</b>	<b>342</b>	<b>592</b>	<b>411</b>	<b>6</b>
FTE	1.3	1.8	2.4	3.7	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	18	27	33	53	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>18</b>	<b>27</b>	<b>33</b>	<b>53</b>	<b>0</b>
FTE	0.2	0.3	0.4	0.6	0.0
<b>Escalation to 2013\$</b>					
Labor	13	14	10	7	0
Non-Labor	1	12	14	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>14</b>	<b>26</b>	<b>24</b>	<b>8</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	146	214	271	425	1
Non-Labor	10	182	379	48	5
NSE	0	0	0	0	0
<b>Total</b>	<b>156</b>	<b>396</b>	<b>650</b>	<b>472</b>	<b>6</b>
FTE	1.5	2.1	2.8	4.3	0.0

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

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

Note: Totals may include rounding differences.



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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3754.000 - CUSTOMER CARE PROJECT OFFICE

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-138	-166	-138	-138	0
Non-Labor	-6	-6	-6	-6	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-144</b>	<b>-172</b>	<b>-144</b>	<b>-144</b>	<b>0</b>
FTE	-1.0	-1.2	-1.0	-1.0	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	-138	-6	0	-1.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031145637953
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-138</b>	<b>-6</b>	<b>0</b>	<b>-1.0</b>			
2010	-138	-6	0	-1.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031145722480
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-28	0	0	-0.2	1-Sided Adj	N/A	TP1JMY20150526 135752327
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2010 Total</b>	<b>-166</b>	<b>-6</b>	<b>0</b>	<b>-1.2</b>			
2011	-138	-6	0	-1.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031145748963
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-138</b>	<b>-6</b>	<b>0</b>	<b>-1.0</b>			
2012	-138	-6	0	-1.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031145823080
IT Employee Transfer from SDGE to SCG as of 2013							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3754.000 - CUSTOMER CARE PROJECT OFFICE

<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>2012 Total</b>	<b>-138</b>	<b>-6</b>	<b>0</b>	<b>-1.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3846.000 - SCG APPS MAJOR MARKET APP**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3846.000 - SCG APPS MAJOR MARKET APP

**Activity Description:**

Provide maintenance and enhancement programming support of contract, gas flow, measurement collection, and billing functions of MCS, ENVOY, SCBS, CCS, and CAT.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**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		0	0	0	1,064	-5	-5	-5	-5	
Non-Labor		0	0	0	288	11	11	11	11	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>1,352</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	
FTE		0.0	0.0	0.0	10.4	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3846.000 - SCG APPS MAJOR MARKET APP

**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	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.	-5	11	0	6	-0.04	-5	11	0	6	-0.04
<b>Total Incurred</b>	<b>-5</b>	<b>11</b>	<b>0</b>	<b>6</b>	<b>-0.04</b>	<b>-5</b>	<b>11</b>	<b>0</b>	<b>6</b>	<b>-0.04</b>
<b>% Allocation</b>										
Retained	2.86%	2.86%				2.86%	2.86%			
SEU	97.14%	97.14%				97.14%	97.14%			
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.	-5	11	0	6	-0.04	-5	11	0	6	-0.04
<b>Total Incurred</b>	<b>-5</b>	<b>11</b>	<b>0</b>	<b>6</b>	<b>-0.04</b>	<b>-5</b>	<b>11</b>	<b>0</b>	<b>6</b>	<b>-0.04</b>
<b>% Allocation</b>										
Retained	2.86%	2.86%				2.86%	2.86%			
SEU	97.14%	97.14%				97.14%	97.14%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3846.000 - SCG APPS MAJOR MARKET APP

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

**Cost Center Allocation Percentage for 2013**

The allocations are calculated by projecting by application systems ( MCS, ENVOY, SCBS, CCS, and CAT) supported by this cost center, the number of employee labor and contractor-agency FTEs supporting the systems. These FTE numbers by system are then multiplied by the affiliate percentages assigned to each system. These amounts are totaled by affiliate and a weighted-average is calculated for each affiliate. These systems are used exclusively by SCG employees for SCG customers. Envoy and MCS is used primarily by SCG, but can be accessed by SDG&E. These systems are used exclusively by SCG employees for SCG customers. Envoy and MCS is used primarily by SCG, but can be accessed by SDG&E.

**Cost Center Allocation Percentage for 2014**

The allocations are calculated by projecting by application systems ( MCS, ENVOY, SCBS, CCS, and CAT) supported by this cost center, the number of employee labor and contractor-agency FTEs supporting the systems. These FTE numbers by system are then multiplied by the affiliate percentages assigned to each system. These amounts are totaled by affiliate and a weighted-average is calculated for each affiliate. These systems are used exclusively by SCG employees for SCG customers. Envoy and MCS is used primarily by SCG, but can be accessed by SDG&E. These systems are used exclusively by SCG employees for SCG customers. Envoy and MCS is used primarily by SCG, but can be accessed by SDG&E.

**Cost Center Allocation Percentage for 2015**

The allocations are calculated by projecting by application systems ( MCS, ENVOY, SCBS, CCS, and CAT) supported by this cost center, the number of employee labor and contractor-agency FTEs supporting the systems. These FTE numbers by system are then multiplied by the affiliate percentages assigned to each system. These amounts are totaled by affiliate and a weighted-average is calculated for each affiliate. These systems are used exclusively by SCG employees for SCG customers. Envoy and MCS is used primarily by SCG, but can be accessed by SDG&E. These systems are used exclusively by SCG employees for SCG customers. Envoy and MCS is used primarily by SCG, but can be accessed by SDG&E.

**Cost Center Allocation Percentage for 2016**

The allocations are calculated by projecting by application systems ( MCS, ENVOY, SCBS, CCS, and CAT) supported by this cost center, the number of employee labor and contractor-agency FTEs supporting the systems. These FTE numbers by system are then multiplied by the affiliate percentages assigned to each system. These amounts are totaled by affiliate and a weighted-average is calculated for each affiliate. These systems are used exclusively by SCG employees for SCG customers. Envoy and MCS is used primarily by SCG, but can be accessed by SDG&E. These systems are used exclusively by SCG employees for SCG customers. Envoy and MCS is used primarily by SCG, but can be accessed by SDG&E.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3846.000 - SCG APPS MAJOR MARKET APP

**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	-5	-5	-5	0	0	0	-5	-5	-5
Non-Labor	Base YR Rec	11	11	11	0	0	0	11	11	11
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>6</b>	<b>6</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>6</b>	<b>6</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3846.000 - SCG APPS MAJOR MARKET APP

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	914	-4
Non-Labor	0	0	0	283	11
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,197</b>	<b>7</b>
FTE	0.0	0.0	0.0	8.9	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	914	-4
Non-Labor	0	0	0	283	11
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,197</b>	<b>7</b>
FTE	0.0	0.0	0.0	8.9	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	132	-1
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>132</b>	<b>-1</b>
FTE	0.0	0.0	0.0	1.4	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	18	0
Non-Labor	0	0	0	5	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	1,064	-5
Non-Labor	0	0	0	288	11
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,352</b>	<b>6</b>
FTE	0.0	0.0	0.0	10.3	0.0

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

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

Note: Totals may include rounding differences.



San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3846.000 - SCG APPS MAJOR MARKET APP

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3848.000 - CUSTOMER ANALYTICS SYSTEM**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3848.000 - CUSTOMER ANALYTICS SYSTEM

**Activity Description:**

This cost center provides enterprise wide IT support and delivery of advanced analytics for customer and grid data.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	58	124	124	124	124	
Non-Labor		0	0	0	423	6	6	6	6	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>480</b>	<b>131</b>	<b>131</b>	<b>131</b>	<b>131</b>	
FTE		0.0	0.0	0.0	0.5	1.1	1.1	1.1	1.1	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3848.000 - CUSTOMER ANALYTICS SYSTEM

**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	0	0	0	0.00	0	0	0	0	0.00
Directly Allocated	-4	0	0	-4	-0.03	-4	0	0	-4	-0.03
Subj. To % Alloc.	128	6	0	134	1.16	128	6	0	134	1.16
<b>Total Incurred</b>	<b>124</b>	<b>6</b>	<b>0</b>	<b>130</b>	<b>1.13</b>	<b>124</b>	<b>6</b>	<b>0</b>	<b>130</b>	<b>1.13</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
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	-4	0	0	-4	-0.03	-4	0	0	-4	-0.03
Subj. To % Alloc.	128	6	0	134	1.16	128	6	0	134	1.16
<b>Total Incurred</b>	<b>124</b>	<b>6</b>	<b>0</b>	<b>130</b>	<b>1.13</b>	<b>124</b>	<b>6</b>	<b>0</b>	<b>130</b>	<b>1.13</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3848.000 - CUSTOMER ANALYTICS SYSTEM

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3848.000 - CUSTOMER ANALYTICS SYSTEM

**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	124	124	124	0	0	0	124	124	124
Non-Labor	Base YR Rec	6	6	6	0	0	0	6	6	6
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>131</b>	<b>131</b>	<b>131</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>131</b>	<b>131</b>	<b>131</b>
FTE	Base YR Rec	1.1	1.1	1.1	0.0	0.0	0.0	1.1	1.1	1.1

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3848.000 - CUSTOMER ANALYTICS SYSTEM

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	49	107
Non-Labor	0	0	0	416	6
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>465</b>	<b>114</b>
FTE	0.0	0.0	0.0	0.5	1.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	49	107
Non-Labor	0	0	0	416	6
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>465</b>	<b>114</b>
FTE	0.0	0.0	0.0	0.5	1.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	7	17
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>17</b>
FTE	0.0	0.0	0.0	0.1	0.2
<b>Escalation to 2013\$</b>					
Labor	0	0	0	1	0
Non-Labor	0	0	0	7	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	58	124
Non-Labor	0	0	0	423	6
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>480</b>	<b>131</b>
FTE	0.0	0.0	0.0	0.6	1.2

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3848.000 - CUSTOMER ANALYTICS SYSTEM

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*



**Beginning of Workpaper**  
**2100-3905.000 - ENTERPRISE MODELING TEST TEAM**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3905.000 - ENTERPRISE MODELING TEST TEAM

**Activity Description:**

The Enterprise, Modeling & Test Team provides technical support to all functional areas within Information Technology

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	18	18	18	18	
Non-Labor		0	0	0	0	0	0	0	0	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	
FTE		0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3905.000 - ENTERPRISE MODELING TEST TEAM

**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	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.	18	0	0	18	0.19	18	0	0	18	0.19
<b>Total Incurred</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0.19</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0.19</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
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.	18	0	0	18	0.19	18	0	0	18	0.19
<b>Total Incurred</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0.19</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0.19</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3905.000 - ENTERPRISE MODELING TEST TEAM

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3905.000 - ENTERPRISE MODELING TEST TEAM

**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	18	18	18	0	0	0	18	18	18
Non-Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>18</b>	<b>18</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>18</b>	<b>18</b>
FTE	Base YR Rec	0.2	0.2	0.2	0.0	0.0	0.0	0.2	0.2	0.2

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-3905.000 - ENTERPRISE MODELING TEST TEAM

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	16
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16</b>
FTE	0.0	0.0	0.0	0.0	0.2
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	16
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16</b>
FTE	0.0	0.0	0.0	0.0	0.2
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	3
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	18
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>
FTE	0.0	0.0	0.0	0.0	0.2

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-3905.000 - ENTERPRISE MODELING TEST TEAM

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-4001.000 - Collaboration Services**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-4001.000 - Collaboration Services

**Activity Description:**

This cost center provides enterprise documentum and collaboration services for corporate and utility companies.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	301	225	329	415	415	481	547	
Non-Labor		0	89	89	409	64	64	254	259	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>391</b>	<b>314</b>	<b>738</b>	<b>479</b>	<b>479</b>	<b>735</b>	<b>806</b>	
FTE		0.0	3.1	3.1	4.1	4.5	4.5	5.2	5.9	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-4001.000 - Collaboration Services

**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	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	64	0	479	4.45	415	64	0	479	4.45
<b>Total Incurred</b>	<b>415</b>	<b>64</b>	<b>0</b>	<b>479</b>	<b>4.45</b>	<b>415</b>	<b>64</b>	<b>0</b>	<b>479</b>	<b>4.45</b>
<b>% Allocation</b>										
Retained	53.16%	53.16%				55.67%	55.67%			
SEU	30.67%	30.67%				29.00%	29.00%			
CORP	16.17%	16.17%				15.33%	15.33%			
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.	481	254	0	735	5.15	547	259	0	806	5.85
<b>Total Incurred</b>	<b>481</b>	<b>254</b>	<b>0</b>	<b>735</b>	<b>5.15</b>	<b>547</b>	<b>259</b>	<b>0</b>	<b>806</b>	<b>5.85</b>
<b>% Allocation</b>										
Retained	55.67%	55.67%				55.67%	55.67%			
SEU	29.00%	29.00%				29.00%	29.00%			
CORP	15.33%	15.33%				15.33%	15.33%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-4001.000 - Collaboration Services

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

**Cost Center Allocation Percentage for 2013**

The allocations are calculated by projecting by systems (Documentum, Sharepoint) supported by this cost center, the number of employee labor and contractor-agency FTEs supporting the systems. These FTE numbers by system are then multiplied by the affiliate percentages assigned to each system based on the number of licenses for the Documentum product as well as the number of sites and storage used by each company for the SharePoint service. These amounts are totaled by affiliate and a weighted-average is calculated for each affiliate. Since these two application/functions are the only source of support in this cost center it is appropriate to determine allocations based on the number of users for each application.

**Cost Center Allocation Percentage for 2014**

The allocations are calculated by projecting by systems (Documentum, Sharepoint) supported by this cost center, the number of employee labor and contractor-agency FTEs supporting the systems. These FTE numbers by system are then multiplied by the affiliate percentages assigned to each system based on the number of licenses for the Documentum product as well as the number of sites and storage used by each company for the SharePoint service. These amounts are totaled by affiliate and a weighted-average is calculated for each affiliate. Since these two application/functions are the only source of support in this cost center it is appropriate to determine allocations based on the number of users for each application.

**Cost Center Allocation Percentage for 2015**

The allocations are calculated by projecting by systems (Documentum, Sharepoint) supported by this cost center, the number of employee labor and contractor-agency FTEs supporting the systems. These FTE numbers by system are then multiplied by the affiliate percentages assigned to each system based on the number of licenses for the Documentum product as well as the number of sites and storage used by each company for the SharePoint service. These amounts are totaled by affiliate and a weighted-average is calculated for each affiliate. Since these two application/functions are the only source of support in this cost center it is appropriate to determine allocations based on the number of users for each application.

**Cost Center Allocation Percentage for 2016**

The allocations are calculated by projecting by systems (Documentum, Sharepoint) supported by this cost center, the number of employee labor and contractor-agency FTEs supporting the systems. These FTE numbers by system are then multiplied by the affiliate percentages assigned to each system based on the number of licenses for the Documentum product as well as the number of sites and storage used by each company for the SharePoint service. These amounts are totaled by affiliate and a weighted-average is calculated for each affiliate. Since these two application/functions are the only source of support in this cost center it is appropriate to determine allocations based on the number of users for each application.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-4001.000 - Collaboration Services

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	415	415	415	0	66	132	415	481	547
Non-Labor	Base YR Rec	64	64	64	0	190	195	64	254	259
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>479</b>	<b>479</b>	<b>479</b>	<b>0</b>	<b>256</b>	<b>327</b>	<b>479</b>	<b>735</b>	<b>806</b>
FTE	Base YR Rec	4.5	4.5	4.5	0.0	0.7	1.4	4.5	5.2	5.9

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

2015                      16                      10                      0                      26                      0.2      1-Sided Adj

.15 new employees to support new IT initiatives across the company in 2014 and 2015. \$100k average salary plus \$10k per employee in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

2015                      50                      5                      0                      55                      0.5      1-Sided Adj

1 FTE at \$100k per employee and \$10k per employee in associated NL costs (1 employee) starting halfway through 2015 and into 2016 for production support of collaboration tools, including SharePoint.

2015                      0                      175                      0                      175                      0.0      1-Sided Adj

Estimated annual cost of professional services contracted through Microsoft for implementing incremental SharePoint tools and features.

<b>2015 Total</b>	<b>66</b>	<b>190</b>	<b>0</b>	<b>256</b>	<b>0.7</b>	
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2016                      16                      10                      0                      26                      0.2      1-Sided Adj

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-4001.000 - Collaboration Services

<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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.15 new employees to support new IT initiatives across the company in 2014 and 2015. \$100k average salary plus \$10k per employee in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

2016	100	10	0	110	1.0	1-Sided Adj
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1 FTE at \$100k per employee and \$10k per employee in associated NL costs (1 employee) starting halfway through 2015 and into 2016 for production support of collaboration tools, including SharePoint.

2016	16	0	0	16	0.2	1-Sided Adj
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.15 new employees to support new IT initiatives across the company in 2014 and 2015. \$100k average salary plus \$10k per employee in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

2016	0	175	0	175	0.0	1-Sided Adj
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Estimated annual cost of professional services contracted through Microsoft for implementing incremental SharePoint tools and features.

<b>2016 Total</b>	<b>132</b>	<b>195</b>	<b>0</b>	<b>327</b>	<b>1.4</b>	
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-4001.000 - Collaboration Services

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	443	473	567	358
Non-Labor	0	89	95	411	64
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>532</b>	<b>568</b>	<b>978</b>	<b>422</b>
FTE	0.0	4.7	4.7	5.5	3.8
<b>Adjustments (Nominal \$) **</b>					
Labor	0	-200	-285	-285	0
Non-Labor	0	-6	-9	-9	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>-206</b>	<b>-294</b>	<b>-294</b>	<b>0</b>
FTE	0.0	-2.0	-2.0	-2.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	243	188	282	358
Non-Labor	0	83	86	402	64
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>326</b>	<b>274</b>	<b>684</b>	<b>422</b>
FTE	0.0	2.7	2.7	3.5	3.8
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	39	28	41	57
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>39</b>	<b>28</b>	<b>41</b>	<b>57</b>
FTE	0.0	0.5	0.4	0.6	0.7
<b>Escalation to 2013\$</b>					
Labor	0	20	8	6	0
Non-Labor	0	6	3	7	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>26</b>	<b>12</b>	<b>13</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	301	225	329	415
Non-Labor	0	89	89	409	64
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>391</b>	<b>314</b>	<b>738</b>	<b>479</b>
FTE	0.0	3.2	3.1	4.1	4.5

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: A. Applications  
 Category-Sub: 1. Applications  
 Cost Center: 2100-4001.000 - Collaboration Services

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	-200	-285	-285	0
Non-Labor	0	-6	-9	-9	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>-206</b>	<b>-294</b>	<b>-294</b>	<b>0</b>
FTE	0.0	-2.0	-2.0	-2.0	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	-200	-6	0	-2.0	CCTR Transf	To 2200-2452.000	FFIGUERO20131 031150523280
Zero out 2010 thru 2013: GRID 2009 Data is Zero Per Finance/delete entries from 2100-4001 for 2010 thru 2013 Entries will now appear in cctr 2100-3082 from 2009 to 2013							
<b>2010 Total</b>	<b>-200</b>	<b>-6</b>	<b>0</b>	<b>-2.0</b>			
2011	-285	-9	0	-2.0	CCTR Transf	To 2200-2452.000	FFIGUERO20131 031150610683
Zero out 2010 thru 2013: GRID 2009 Data is Zero Per Finance/delete entries from 2100-4001 for 2010 thru 2013 Entries will now appear in cctr 2100-3082 from 2009 to 2013							
<b>2011 Total</b>	<b>-285</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
2012	-285	-9	0	-2.0	CCTR Transf	To 2200-2452.000	FFIGUERO20131 031150728843
Zero out 2010 thru 2013: GRID 2009 Data is Zero Per Finance/delete entries from 2100-4001 for 2010 thru 2013 Entries will now appear in cctr 2100-3082 from 2009 to 2013							
<b>2012 Total</b>	<b>-285</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: A. Applications  
Category-Sub: 1. Applications  
Cost Center: 2100-4001.000 - Collaboration Services

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From Cctr</u>	<u>RefID</u>
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Cost Center: VARIOUS

**Summary for Category: B. Infrastructure**

	In 2013\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	11,034	11,034	11,738	12,441
Non-Labor	37,578	36,325	39,555	42,605
NSE	0	0	0	0
<b>Total</b>	<b>48,612</b>	<b>47,359</b>	<b>51,293</b>	<b>55,046</b>
FTE	115.4	115.4	122.5	129.6

**Cost Centers belonging to this Category:**

**2100-0207.000 TELECOM FIELD VOICE - SDGE**

Labor	1,841	1,841	1,841	1,841
Non-Labor	476	746	746	746
NSE	0	0	0	0
<b>Total</b>	<b>2,317</b>	<b>2,587</b>	<b>2,587</b>	<b>2,587</b>
FTE	19.0	19.0	19.0	19.0

**2100-3095.000 NETWORK COMMUNICATION SERVICES DIRECTOR**

Labor	136	136	553	969
Non-Labor	31	31	236	291
NSE	0	0	0	0
<b>Total</b>	<b>167</b>	<b>167</b>	<b>789</b>	<b>1,260</b>
FTE	1.0	1.0	5.2	9.4

**2100-3096.000 NETWORK ENGINEERING-NCS**

Labor	0	0	0	0
Non-Labor	0	0	0	0
NSE	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0

**2100-3097.000 CLIENT TECHNOLOGY & DEPOT SERVICES**

Labor	802	802	802	802
Non-Labor	50	50	50	50
NSE	0	0	0	0
<b>Total</b>	<b>852</b>	<b>852</b>	<b>852</b>	<b>852</b>
FTE	9.1	9.1	9.1	9.1

**2100-3098.000 ENTERPRISE SERVER GROUP**

Labor	34	34	34	34
Non-Labor	0	0	0	0
NSE	0	0	0	0
<b>Total</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>34</b>
FTE	0.4	0.4	0.4	0.4

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Cost Center: VARIOUS

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

**2100-3099.000 DESKTOP HARDWARE**

Labor	0	0	0	0
Non-Labor	596	188	203	219
NSE	0	0	0	0
<b>Total</b>	<b>596</b>	<b>188</b>	<b>203</b>	<b>219</b>
FTE	0.0	0.0	0.0	0.0

**2100-3100.000 MIDDLEWARE AND INTERNET ENGINEERING**

Labor	1,067	1,067	1,067	1,067
Non-Labor	198	198	198	198
NSE	0	0	0	0
<b>Total</b>	<b>1,265</b>	<b>1,265</b>	<b>1,265</b>	<b>1,265</b>
FTE	10.0	10.0	10.0	10.0

**2100-3103.000 CSC CONTRACT SERVICES**

Labor	0	0	0	0
Non-Labor	12,114	8,904	9,616	10,385
NSE	0	0	0	0
<b>Total</b>	<b>12,114</b>	<b>8,904</b>	<b>9,616</b>	<b>10,385</b>
FTE	0.0	0.0	0.0	0.0

**2100-3105.000 STORAGE AND ADMINISTRATION**

Labor	14	14	14	14
Non-Labor	0	0	0	0
NSE	0	0	0	0
<b>Total</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>
FTE	0.2	0.2	0.2	0.2

**2100-3106.000 NETWORK/TELECOM SERVICES - SDG&E**

Labor	0	0	0	0
Non-Labor	5,842	6,408	6,921	7,475
NSE	0	0	0	0
<b>Total</b>	<b>5,842</b>	<b>6,408</b>	<b>6,921</b>	<b>7,475</b>
FTE	0.0	0.0	0.0	0.0

**2100-3107.000 ENTERPRISE OPERATIONS**

Labor	1,002	1,002	1,002	1,002
Non-Labor	129	129	129	129
NSE	0	0	0	0
<b>Total</b>	<b>1,131</b>	<b>1,131</b>	<b>1,131</b>	<b>1,131</b>
FTE	10.6	10.6	10.6	10.6

**2100-3334.000 SERVER MANAGEMENT**

Labor	762	762	762	762
Non-Labor	76	76	76	76
NSE	0	0	0	0
<b>Total</b>	<b>838</b>	<b>838</b>	<b>838</b>	<b>838</b>
FTE	8.3	8.3	8.3	8.3

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Cost Center: VARIOUS

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

**2100-3335.000 UNIX SERVER GROUP**

Labor	30	30	30	30
Non-Labor	20	20	20	20
NSE	0	0	0	0
<b>Total</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>
FTE	0.3	0.3	0.3	0.3

**2100-3494.000 DISTRIBUTED CONTRACTS**

Labor	0	0	0	0
Non-Labor	3,232	4,604	4,972	5,370
NSE	0	0	0	0
<b>Total</b>	<b>3,232</b>	<b>4,604</b>	<b>4,972</b>	<b>5,370</b>
FTE	0.0	0.0	0.0	0.0

**2100-3495.000 MAINFRAME CONTRACTS**

Labor	0	0	0	0
Non-Labor	5,701	6,077	6,563	7,088
NSE	0	0	0	0
<b>Total</b>	<b>5,701</b>	<b>6,077</b>	<b>6,563</b>	<b>7,088</b>
FTE	0.0	0.0	0.0	0.0

**2100-3498.000 INFRASTRUCTURE PROGRAM OFFICE**

Labor	286	286	286	286
Non-Labor	12	12	12	12
NSE	0	0	0	0
<b>Total</b>	<b>298</b>	<b>298</b>	<b>298</b>	<b>298</b>
FTE	2.0	2.0	2.0	2.0

**2100-3500.000 IT NETWORK FIELD - LAN/WAN VOICE**

Labor	304	304	304	304
Non-Labor	15	15	15	15
NSE	0	0	0	0
<b>Total</b>	<b>319</b>	<b>319</b>	<b>319</b>	<b>319</b>
FTE	3.9	3.9	3.9	3.9

**2100-3501.000 IT NETWORK HARDWARE SOFTWARE MAINTENANCE**

Labor	0	0	0	0
Non-Labor	1,066	1,075	1,161	1,254
NSE	0	0	0	0
<b>Total</b>	<b>1,066</b>	<b>1,075</b>	<b>1,161</b>	<b>1,254</b>
FTE	0.0	0.0	0.0	0.0

**2100-3502.000 ENTERPRISE COMMAND CENTER**

Labor	1,842	1,842	1,842	1,842
Non-Labor	66	66	66	66
NSE	0	0	0	0
<b>Total</b>	<b>1,908</b>	<b>1,908</b>	<b>1,908</b>	<b>1,908</b>
FTE	22.5	22.5	22.5	22.5

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Cost Center: VARIOUS

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

**2100-3544.000 WINTEL SERVER GROUP**

Labor	34	34	34	34
Non-Labor	4	4	4	4
NSE	0	0	0	0
<b>Total</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>
FTE	0.4	0.4	0.4	0.4

**2100-3548.000 ENT SVC MGT & HELP DESK**

Labor	161	161	161	161
Non-Labor	75	75	75	75
NSE	0	0	0	0
<b>Total</b>	<b>236</b>	<b>236</b>	<b>236</b>	<b>236</b>
FTE	1.7	1.7	1.7	1.7

**2100-3682.000 PROJECT MANAGEMENT OFFICE-NCS**

Labor	299	299	299	299
Non-Labor	23	23	23	23
NSE	0	0	0	0
<b>Total</b>	<b>322</b>	<b>322</b>	<b>322</b>	<b>322</b>
FTE	2.7	2.7	2.7	2.7

**2100-3683.000 PROJECT IMPROVEMENT OFFICE-NCS**

Labor	956	956	956	956
Non-Labor	138	138	138	138
NSE	0	0	0	0
<b>Total</b>	<b>1,094</b>	<b>1,094</b>	<b>1,094</b>	<b>1,094</b>
FTE	10.0	10.0	10.0	10.0

**2100-3684.000 SERVICE DELIVERY - NCS**

Labor	355	355	355	355
Non-Labor	67	67	67	67
NSE	0	0	0	0
<b>Total</b>	<b>422</b>	<b>422</b>	<b>422</b>	<b>422</b>
FTE	3.9	3.9	3.9	3.9

**2100-3698.000 SERVICE DEVELOPMENT PROGRAM MANAGEMENT**

Labor	-10	-10	209	428
Non-Labor	2	2	22	42
NSE	0	0	0	0
<b>Total</b>	<b>-8</b>	<b>-8</b>	<b>231</b>	<b>470</b>
FTE	-0.1	-0.1	2.1	4.2

**2100-3824.000 INFRASTR PRGRM OFFICE**

Labor	203	203	203	203
Non-Labor	14	14	14	14
NSE	0	0	0	0
<b>Total</b>	<b>217</b>	<b>217</b>	<b>217</b>	<b>217</b>
FTE	1.6	1.6	1.6	1.6

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Cost Center: VARIOUS

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

**2100-3835.000 SDGE NETWRK INTEGRA**

Labor	0	0	0	0
Non-Labor	17	17	17	17
NSE	0	0	0	0
<b>Total</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>17</b>
FTE	0.0	0.0	0.0	0.0

**2100-3843.000 SCG NETWORK INTEGRATION**

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

**2100-3855.000 CLINT SERVICES MAINTENANCE & SUPPORT**

Labor	0	0	0	0
Non-Labor	5,471	4,514	4,875	5,265
NSE	0	0	0	0
<b>Total</b>	<b>5,471</b>	<b>4,514</b>	<b>4,875</b>	<b>5,265</b>
FTE	0.0	0.0	0.0	0.0

**2100-3856.000 VOICE LEASED CIRCUITS**

Labor	0	0	0	0
Non-Labor	900	1,069	1,155	1,247
NSE	0	0	0	0
<b>Total</b>	<b>900</b>	<b>1,069</b>	<b>1,155</b>	<b>1,247</b>
FTE	0.0	0.0	0.0	0.0

**2100-3859.000 SDGE PERSONAL OWNED DEVICE ALLOWANCE**

Labor	0	0	0	0
Non-Labor	327	528	570	616
NSE	0	0	0	0
<b>Total</b>	<b>327</b>	<b>528</b>	<b>570</b>	<b>616</b>
FTE	0.0	0.0	0.0	0.0

**2100-3884.000 MGD SVC VOICE ENTERP**

Labor	0	0	0	0
Non-Labor	888	890	961	1,038
NSE	0	0	0	0
<b>Total</b>	<b>888</b>	<b>890</b>	<b>961</b>	<b>1,038</b>
FTE	0.0	0.0	0.0	0.0

**2100-3885.000 VOICE ENTERP SUPPORT**

Labor	426	426	426	426
Non-Labor	4	4	4	4
NSE	0	0	0	0
<b>Total</b>	<b>430</b>	<b>430</b>	<b>430</b>	<b>430</b>
FTE	3.7	3.7	3.7	3.7

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Cost Center: VARIOUS

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

**2100-3888.000 CLIENT TECH SVCS**

Labor	310	310	310	310
Non-Labor	17	17	17	17
NSE	0	0	0	0
<b>Total</b>	<b>327</b>	<b>327</b>	<b>327</b>	<b>327</b>
FTE	2.4	2.4	2.4	2.4

**2100-3900.000 IT PORTFOLIO MANAGEMENT**

Labor	89	89	157	225
Non-Labor	6	363	628	643
NSE	0	0	0	0
<b>Total</b>	<b>95</b>	<b>452</b>	<b>785</b>	<b>868</b>
FTE	0.6	0.6	1.3	2.1

**2100-4003.000 IT Communications**

Labor	90	90	90	90
Non-Labor	1	1	1	1
NSE	0	0	0	0
<b>Total</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>
FTE	1.2	1.2	1.2	1.2

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-0207.000 - TELECOM FIELD VOICE - SDGE**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-0207.000 - TELECOM FIELD VOICE - SDGE

**Activity Description:**

This cost center is responsible for the installation and maintenance of telecom equipment including PBXs, microwave, data and mobile radio services across the SDG&E service territory, including Corporate Center (parent).

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		1,259	1,091	1,049	1,203	1,841	1,841	1,841	1,841	
Non-Labor		268	188	219	348	476	746	746	746	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1,527</b>	<b>1,279</b>	<b>1,268</b>	<b>1,551</b>	<b>2,317</b>	<b>2,587</b>	<b>2,587</b>	<b>2,587</b>	
FTE		13.2	11.8	11.5	12.1	19.0	19.0	19.0	19.0	

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-0207.000 - TELECOM FIELD VOICE - SDGE

**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	105	9	0	114	0.71	105	9	0	114	0.71
Directly Allocated	9	0	0	9	0.09	9	0	0	9	0.09
Subj. To % Alloc.	1,728	467	0	2,195	18.19	1,728	737	0	2,465	18.19
<b>Total Incurred</b>	<b>1,842</b>	<b>476</b>	<b>0</b>	<b>2,318</b>	<b>18.99</b>	<b>1,842</b>	<b>746</b>	<b>0</b>	<b>2,588</b>	<b>18.99</b>
<b>% Allocation</b>										
Retained	91.91%	91.91%				91.37%	91.37%			
SEU	0.00%	0.00%				0.00%	0.00%			
CORP	8.09%	8.09%				8.63%	8.63%			
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	105	9	0	114	0.71	105	9	0	114	0.71
Directly Allocated	9	0	0	9	0.09	9	0	0	9	0.09
Subj. To % Alloc.	1,728	737	0	2,465	18.19	1,728	737	0	2,465	18.19
<b>Total Incurred</b>	<b>1,842</b>	<b>746</b>	<b>0</b>	<b>2,588</b>	<b>18.99</b>	<b>1,842</b>	<b>746</b>	<b>0</b>	<b>2,588</b>	<b>18.99</b>
<b>% Allocation</b>										
Retained	91.37%	91.37%				91.37%	91.37%			
SEU	0.00%	0.00%				0.00%	0.00%			
CORP	8.63%	8.63%				8.63%	8.63%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-0207.000 - TELECOM FIELD VOICE - SDGE

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across SDG&E and the Parent. The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across SDG&E and the Parent. The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across SDG&E and the Parent. The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across SDG&E and the Parent. The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-0207.000 - TELECOM FIELD VOICE - SDGE

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	1,841	1,841	1,841	0	0	0	1,841	1,841	1,841
Non-Labor	Base YR Rec	476	476	476	270	270	270	746	746	746
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>2,317</b>	<b>2,317</b>	<b>2,317</b>	<b>270</b>	<b>270</b>	<b>270</b>	<b>2,587</b>	<b>2,587</b>	<b>2,587</b>
FTE	Base YR Rec	19.0	19.0	19.0	0.0	0.0	0.0	19.0	19.0	19.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	0	270	0	270	0.0	1-Sided Adj

IT network telecom GO 95 work. Ensure telecommunications cabling is in compliance and safe per General Order 95 to limit our exposure to fines. Examples include poles, lines, underground facilities, and tower inspections. These are mandated costs, approximately \$15k per telecommunication cabling repairs (caused by weather, vehicle, or other damage) and averaging 15-20 repairs per year (18 x \$15k). The repairs are necessary to avoid possible violation.

<b>2014 Total</b>	<b>0</b>	<b>270</b>	<b>0</b>	<b>270</b>	<b>0.0</b>	
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2015	0	270	0	270	0.0	1-Sided Adj
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IT network telecom GO 95 work. Ensure telecommunications cabling is in compliance and safe per General Order 95 to limit our exposure to fines. Examples include poles, lines, underground facilities, and tower inspections. These are mandated costs, approximately \$15k per telecommunication cabling repairs (caused by weather, vehicle, or other damage) and averaging 15-20 repairs per year (18 x \$15k). The repairs are necessary to avoid possible violation.

<b>2015 Total</b>	<b>0</b>	<b>270</b>	<b>0</b>	<b>270</b>	<b>0.0</b>	
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2016	0	270	0	270	0.0	1-Sided Adj
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
 2016 GRC - REVISED  
 Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-0207.000 - TELECOM FIELD VOICE - SDGE

<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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IT network telecom GO 95 work. Ensure telecommunications cabling is in compliance and safe per General Order 95 to limit our exposure to fines. Examples include poles, lines, underground facilities, and tower inspections. These are mandated costs, approximately \$15k per telecommunication cabling repairs (caused by weather, vehicle, or other damage) and averaging 15-20 repairs per year (18 x \$15k). The repairs are necessary to avoid possible violation.

<b>2016 Total</b>	<b>0</b>	<b>270</b>	<b>0</b>	<b>270</b>	<b>0.0</b>	
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-0207.000 - TELECOM FIELD VOICE - SDGE

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	996	879	881	1,033	1,589
Non-Labor	245	176	210	342	476
NSE	0	0	0	0	0
<b>Total</b>	<b>1,241</b>	<b>1,055</b>	<b>1,091</b>	<b>1,376</b>	<b>2,065</b>
FTE	11.3	10.1	9.9	10.4	16.2
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	-1	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>-1</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	996	879	880	1,033	1,589
Non-Labor	245	176	210	342	476
NSE	0	0	0	0	0
<b>Total</b>	<b>1,241</b>	<b>1,055</b>	<b>1,091</b>	<b>1,375</b>	<b>2,065</b>
FTE	11.3	10.1	9.9	10.4	16.2
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	154	140	130	150	252
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>154</b>	<b>140</b>	<b>130</b>	<b>150</b>	<b>252</b>
FTE	1.9	1.7	1.6	1.7	2.8
<b>Escalation to 2013\$</b>					
Labor	109	72	39	20	0
Non-Labor	23	12	8	6	0
NSE	0	0	0	0	0
<b>Total</b>	<b>132</b>	<b>85</b>	<b>48</b>	<b>26</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	1,259	1,091	1,049	1,203	1,841
Non-Labor	268	188	219	348	476
NSE	0	0	0	0	0
<b>Total</b>	<b>1,527</b>	<b>1,279</b>	<b>1,268</b>	<b>1,551</b>	<b>2,317</b>
FTE	13.2	11.8	11.5	12.1	19.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-0207.000 - TELECOM FIELD VOICE - SDGE

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	-0.731	-0.134	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>-0.731</b>	<b>-0.134</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2009 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2010 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
2011	-0.731	0	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 135928720
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2011 Total</b>	<b>-0.731</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
2012	-0.134	0	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 141047897
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2012 Total</b>	<b>-0.134</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR

**Activity Description:**

This cost center includes the Director of IT Computing Infrastructure and his administrative support. Activities include department level management for plan, design, build, implementation and management of system-wide network and telecommunications infrastructure.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		159	177	96	-24	136	136	553	969	
Non-Labor		516	279	207	61	31	31	236	291	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>675</b>	<b>456</b>	<b>303</b>	<b>37</b>	<b>166</b>	<b>166</b>	<b>788</b>	<b>1,259</b>	
FTE		1.3	1.5	0.9	-0.8	1.0	1.0	5.2	9.4	

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3095.000 - NETWORK COMMUNICATION SERVICES DIRECTOR

**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	4	0	0	4	0.03	4	0	0	4	0.03
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	132	30	0	162	1.00	132	30	0	162	1.00
<b>Total Incurred</b>	<b>136</b>	<b>30</b>	<b>0</b>	<b>166</b>	<b>1.03</b>	<b>136</b>	<b>30</b>	<b>0</b>	<b>166</b>	<b>1.03</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				38.08%	38.08%			
SEU	54.70%	54.70%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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	4	0	0	4	0.03	4	0	0	4	0.03
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	549	235	0	784	5.20	965	290	0	1,255	9.40
<b>Total Incurred</b>	<b>553</b>	<b>235</b>	<b>0</b>	<b>788</b>	<b>5.23</b>	<b>969</b>	<b>290</b>	<b>0</b>	<b>1,259</b>	<b>9.43</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3095.000 - NETWORK COMMUNICATION SERVICES DIRECTOR

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR

**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	136	136	136	0	417	833	136	553	969
Non-Labor	Base YR Rec	31	31	31	0	205	260	31	236	291
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>166</b>	<b>166</b>	<b>166</b>	<b>0</b>	<b>622</b>	<b>1,093</b>	<b>166</b>	<b>788</b>	<b>1,259</b>
FTE	Base YR Rec	1.0	1.0	1.0	0.0	4.2	8.4	1.0	5.2	9.4

**Forecast Adjustment Details:**

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

2015                      178                      30                      0                      208                      1.8      1-Sided Adj

2.25 new employees to support new IT initiatives across the company in 2015 and in 2016. \$100k average salary plus \$10k per employee in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

2015                      239                      25                      0                      264                      2.4      1-Sided Adj

4.8 FTE s at \$100k per year and \$10k per employee in associated NL costs, split across 2015 and 2016. 5 telecom support technicians planned for SGCS deployment, based upon SCGS plan. Management estimate of 4 SAP/LINUX analysts to support the expanding SAP landscape, ECM system expansion, and CPD work completion.

2015                      0                      150                      0                      150                      0.0      1-Sided Adj

Develop a five-year network strategy and migration plan to leverage emerging technologies for improved reliability and performance of our network environment. Management estimate for average consulting engagement (4-6 months) to analyze networking capabilities across 80 manned and unmanned sites.

<b>2015 Total</b>	<b>417</b>	<b>205</b>	<b>0</b>	<b>622</b>	<b>4.2</b>	
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2016	178	30	0	208	1.8	1-Sided Adj

2.25 new employees to support new IT initiatives across the company in 2015 and in 2016. \$100k average salary plus \$10k per employee in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

2016	178	30	0	208	1.8	1-Sided Adj
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2.25 new employees to support new IT initiatives across the company in 2015 and in 2016. \$100k average salary plus \$10k per employee in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

2016	477	50	0	527	4.8	1-Sided Adj
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4.8 FTE s at \$100k per year and \$10k per employee in associated NL costs, split across 2015 and 2016. 5 telecom support technicians planned for SGCS deployment, based upon SCGS plan. Management estimate of 4 SAP/LINUX analysts to support the expanding SAP landscape, ECM system expansion, and CPD work completion.

2016	0	150	0	150	0.0	1-Sided Adj
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Develop a five-year network strategy and migration plan to leverage emerging technologies for improved reliability and performance of our network environment. Management estimate for average consulting engagement (4-6 months) to analyze networking capabilities across 80 manned and unmanned sites.

<b>2016 Total</b>	<b>833</b>	<b>260</b>	<b>0</b>	<b>1,093</b>	<b>8.4</b>	
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Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	273	290	228	170	117
Non-Labor	474	264	202	66	31
NSE	0	0	0	0	0
<b>Total</b>	<b>748</b>	<b>553</b>	<b>430</b>	<b>236</b>	<b>148</b>
FTE	2.1	2.3	1.8	1.3	0.9
<b>Adjustments (Nominal \$) **</b>					
Labor	-147	-147	-147	-191	0
Non-Labor	-3	-3	-3	-6	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-150</b>	<b>-150</b>	<b>-150</b>	<b>-197</b>	<b>0</b>
FTE	-1.0	-1.0	-1.0	-2.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	126	142	81	-21	117
Non-Labor	471	261	199	60	31
NSE	0	0	0	0	0
<b>Total</b>	<b>597</b>	<b>403</b>	<b>280</b>	<b>39</b>	<b>148</b>
FTE	1.1	1.3	0.8	-0.7	0.9
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	19	23	12	-3	19
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>19</b>	<b>23</b>	<b>12</b>	<b>-3</b>	<b>19</b>
FTE	0.2	0.2	0.1	-0.1	0.2
<b>Escalation to 2013\$</b>					
Labor	14	12	4	0	0
Non-Labor	45	18	8	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>58</b>	<b>30</b>	<b>11</b>	<b>1</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	159	177	96	-24	136
Non-Labor	516	279	207	61	31
NSE	0	0	0	0	0
<b>Total</b>	<b>675</b>	<b>456</b>	<b>303</b>	<b>37</b>	<b>166</b>
FTE	1.3	1.5	0.9	-0.8	1.1

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-147	-147	-147	-191	0
Non-Labor	-3	-3	-3	-6	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-150</b>	<b>-150</b>	<b>-150</b>	<b>-197</b>	<b>0</b>
FTE	-1.0	-1.0	-1.0	-2.0	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	-147	-3	0	-1.0	CCTR Transf	To 2200-2406.000	FFIGUERO20131 031124855210
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-147</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			
2010	-147	-3	0	-1.0	CCTR Transf	To 2200-2406.000	FFIGUERO20131 031124948890
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-147</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			
2011	-147	-3	0	-1.0	CCTR Transf	To 2200-2406.000	FFIGUERO20131 031125050277
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-147</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			
2012	-191	-6	0	-2.0	CCTR Transf	To 2200-2406.000	FFIGUERO20131 031125149367
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-191</b>	<b>-6</b>	<b>0</b>	<b>-2.0</b>			

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR

<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>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3096.000 - NETWORK ENGINEERING-NCS**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3096.000 - NETWORK ENGINEERING-NCS

**Activity Description:**

This cost center supported IT network engineering costs. Due to departmental reorganization, these costs have been shifted to other infrastructure cost centers.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		1,286	1,718	1,565	305	0	0	0	0	
Non-Labor		882	947	471	688	0	0	0	0	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>2,169</b>	<b>2,665</b>	<b>2,036</b>	<b>993</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
FTE		12.6	17.6	15.4	2.2	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3096.000 - NETWORK ENGINEERING-NCS

**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	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.	0	0	0	0	0.00	0	0	0	0	0.00
<b>Total Incurred</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
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.	0	0	0	0	0.00	0	0	0	0	0.00
<b>Total Incurred</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3096.000 - NETWORK ENGINEERING-NCS

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3096.000 - NETWORK ENGINEERING-NCS

**Forecast Summary:**

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

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3096.000 - NETWORK ENGINEERING-NCS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	1,274	1,641	1,649	598	0
Non-Labor	818	897	468	691	0
NSE	0	0	0	0	0
<b>Total</b>	<b>2,092</b>	<b>2,537</b>	<b>2,118</b>	<b>1,289</b>	<b>0</b>
FTE	13.8	18.0	17.2	5.9	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	-256	-256	-336	-336	0
Non-Labor	-12	-12	-15	-15	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-268</b>	<b>-268</b>	<b>-351</b>	<b>-351</b>	<b>0</b>
FTE	-3.0	-3.0	-4.0	-4.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	1,018	1,384	1,313	261	0
Non-Labor	806	885	453	676	0
NSE	0	0	0	0	0
<b>Total</b>	<b>1,824</b>	<b>2,269</b>	<b>1,766</b>	<b>938</b>	<b>0</b>
FTE	10.8	15.0	13.2	1.9	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	157	220	193	38	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>157</b>	<b>220</b>	<b>193</b>	<b>38</b>	<b>0</b>
FTE	1.8	2.6	2.2	0.3	0.0
<b>Escalation to 2013\$</b>					
Labor	111	114	59	5	0
Non-Labor	76	63	18	12	0
NSE	0	0	0	0	0
<b>Total</b>	<b>188</b>	<b>176</b>	<b>76</b>	<b>17</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	1,286	1,718	1,565	305	0
Non-Labor	882	947	471	688	0
NSE	0	0	0	0	0
<b>Total</b>	<b>2,169</b>	<b>2,665</b>	<b>2,036</b>	<b>993</b>	<b>0</b>
FTE	12.6	17.6	15.4	2.2	0.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3096.000 - NETWORK ENGINEERING-NCS

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-256	-256	-336	-336	0
Non-Labor	-12	-12	-15	-15	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-268</b>	<b>-268</b>	<b>-351</b>	<b>-351</b>	<b>0</b>
FTE	-3.0	-3.0	-4.0	-4.0	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	-205	-9	0	-2.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031125613230
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-51	-3	0	-1.0	CCTR Transf	To 2200-2469.000	FFIGUERO20131 031130150060
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-256</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
2010	-205	-9	0	-2.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031125705807
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-51	-3	0	-1.0	CCTR Transf	To 2200-2469.000	FFIGUERO20131 031130237263
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-256</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
2011	-80	-3	0	-1.0	CCTR Transf	To 2200-2456.000	FFIGUERO20131 031125343227
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-205	-9	0	-2.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031125755013
IT Employee Transfer from SDGE to SCG as of 2013							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
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 Cost Center: 2100-3096.000 - NETWORK ENGINEERING-NCS

<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	-51	-3	0	-1.0	CCTR Transf	To 2200-2469.000	FFIGUERO20131 031130322230
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-336</b>	<b>-15</b>	<b>0</b>	<b>-4.0</b>			
2012	-80	-3	0	-1.0	CCTR Transf	To 2200-2456.000	FFIGUERO20131 031125436653
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-205	-9	0	-2.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031130022963
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-51	-3	0	-1.0	CCTR Transf	To 2200-2469.000	FFIGUERO20131 031130358000
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-336</b>	<b>-15</b>	<b>0</b>	<b>-4.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

**Beginning of Workpaper**  
**2100-3097.000 - CLIENT TECHNOLOGY & DEPOT SERVICES**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3097.000 - CLIENT TECHNOLOGY & DEPOT SERVICES

**Activity Description:**

Provides management and support services for system-wide Client Technology and Depot services.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		1,041	1,166	818	796	802	802	802	802	
Non-Labor		167	47	55	121	50	50	50	50	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1,208</b>	<b>1,213</b>	<b>873</b>	<b>917</b>	<b>852</b>	<b>852</b>	<b>852</b>	<b>852</b>	
FTE		13.8	15.9	11.2	10.1	9.1	9.1	9.1	9.1	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3097.000 - CLIENT TECHNOLOGY & DEPOT SERVICES

**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	5	0	0	5	0.00	5	0	0	5	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	797	50	0	847	9.13	797	50	0	847	9.13
<b>Total Incurred</b>	<b>802</b>	<b>50</b>	<b>0</b>	<b>852</b>	<b>9.13</b>	<b>802</b>	<b>50</b>	<b>0</b>	<b>852</b>	<b>9.13</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				38.08%	38.08%			
SEU	54.70%	54.70%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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	5	0	0	5	0.00	5	0	0	5	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	797	50	0	847	9.13	797	50	0	847	9.13
<b>Total Incurred</b>	<b>802</b>	<b>50</b>	<b>0</b>	<b>852</b>	<b>9.13</b>	<b>802</b>	<b>50</b>	<b>0</b>	<b>852</b>	<b>9.13</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
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Category: B. Infrastructure  
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Cost Center: 2100-3097.000 - CLIENT TECHNOLOGY & DEPOT SERVICES

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

**Cost Center Allocation Percentage for 2013**

The IT & Client Services cost centers provides infrastructure computing services for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. The LAN ID use across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

**Cost Center Allocation Percentage for 2014**

The IT & Client Services cost centers provides infrastructure computing services for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. The LAN ID use across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

**Cost Center Allocation Percentage for 2015**

The IT & Client Services cost centers provides infrastructure computing services for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. The LAN ID use across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

**Cost Center Allocation Percentage for 2016**

The IT & Client Services cost centers provides infrastructure computing services for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. The LAN ID use across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3097.000 - CLIENT TECHNOLOGY & DEPOT SERVICES

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	802	802	802	0	0	0	802	802	802
Non-Labor	Base YR Rec	50	50	50	0	0	0	50	50	50
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>852</b>	<b>852</b>	<b>852</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>852</b>	<b>852</b>	<b>852</b>
FTE	Base YR Rec	9.1	9.1	9.1	0.0	0.0	0.0	9.1	9.1	9.1

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3097.000 - CLIENT TECHNOLOGY & DEPOT SERVICES

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	1,084	1,199	946	944	692
Non-Labor	164	56	65	131	50
NSE	0	0	0	0	0
<b>Total</b>	<b>1,248</b>	<b>1,255</b>	<b>1,012</b>	<b>1,075</b>	<b>742</b>
FTE	14.8	16.6	12.7	11.7	7.8
<b>Adjustments (Nominal \$) **</b>					
Labor	-260	-260	-260	-260	0
Non-Labor	-12	-12	-12	-12	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-272</b>	<b>-272</b>	<b>-272</b>	<b>-272</b>	<b>0</b>
FTE	-3.0	-3.0	-3.0	-3.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	824	939	686	683	692
Non-Labor	152	44	53	119	50
NSE	0	0	0	0	0
<b>Total</b>	<b>976</b>	<b>983</b>	<b>739</b>	<b>802</b>	<b>742</b>
FTE	11.8	13.6	9.7	8.7	7.8
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	127	150	101	99	110
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>127</b>	<b>150</b>	<b>101</b>	<b>99</b>	<b>110</b>
FTE	2.0	2.4	1.6	1.4	1.4
<b>Escalation to 2013\$</b>					
Labor	90	77	31	14	0
Non-Labor	14	3	2	2	0
NSE	0	0	0	0	0
<b>Total</b>	<b>105</b>	<b>80</b>	<b>33</b>	<b>16</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	1,041	1,166	818	796	802
Non-Labor	167	47	55	121	50
NSE	0	0	0	0	0
<b>Total</b>	<b>1,208</b>	<b>1,213</b>	<b>873</b>	<b>917</b>	<b>852</b>
FTE	13.8	16.0	11.3	10.1	9.2

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3097.000 - CLIENT TECHNOLOGY & DEPOT SERVICES

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-260	-260	-260	-260	0
Non-Labor	-12	-12	-12	-12	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-272</b>	<b>-272</b>	<b>-272</b>	<b>-272</b>	<b>0</b>
FTE	-3.0	-3.0	-3.0	-3.0	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	-171	-9	0	-2.0	CCTR Transf	To 2200-2453.000	FFIGUERO20131 031130522650
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-89	-3	0	-1.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031131009230
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-260</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
2010	-171	-9	0	-2.0	CCTR Transf	To 2200-2453.000	FFIGUERO20131 031130632553
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-89	-3	0	-1.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031131110390
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-260</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
2011	-171	-9	0	-2.0	CCTR Transf	To 2200-2453.000	FFIGUERO20131 031130741580
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-89	-3	0	-1.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031131146817
IT Employee Transfer from SDGE to SCG as of 2013							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3097.000 - CLIENT TECHNOLOGY & DEPOT SERVICES

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From Cctr</u>	<u>RefID</u>
<b>2011 Total</b>	<b>-260</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
2012	-171	-9	0	-2.0	CCTR Transf	To 2200-2453.000	FFIGUERO20131 031130856620
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-89	-3	0	-1.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031131231513
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-260</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3098.000 - ENTERPRISE SERVER GROUP**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3098.000 - ENTERPRISE SERVER GROUP

**Activity Description:**

Provide engineering for both the SoCal Gas and SDG&E Enterprise Server for CIS, CISCO, PACER, SORT, and other critical and non-critical applications. Also supports disaster recovery.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		205	228	321	502	34	34	34	34	
Non-Labor		-6	16	-3	-5	0	0	0	0	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>200</b>	<b>244</b>	<b>318</b>	<b>497</b>	<b>35</b>	<b>35</b>	<b>35</b>	<b>35</b>	
FTE		1.9	2.5	3.7	5.2	0.4	0.4	0.4	0.4	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3098.000 - ENTERPRISE SERVER GROUP

**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	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.	34	0	0	34	0.39	34	0	0	34	0.39
<b>Total Incurred</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>0.39</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>0.39</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
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.	34	0	0	34	0.39	34	0	0	34	0.39
<b>Total Incurred</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>0.39</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>0.39</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

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

**Cost Center Allocation Percentage for 2013**

**Cost Center Allocation Percentage for 2014**

**Cost Center Allocation Percentage for 2015**

**Cost Center Allocation Percentage for 2016**

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3098.000 - ENTERPRISE SERVER GROUP

**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	34	34	34	0	0	0	34	34	34
Non-Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>35</b>	<b>35</b>	<b>35</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>35</b>	<b>35</b>	<b>35</b>
FTE	Base YR Rec	0.4	0.4	0.4	0.0	0.0	0.0	0.4	0.4	0.4

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3098.000 - ENTERPRISE SERVER GROUP

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	486	507	592	754	30
Non-Labor	7	27	9	7	0
NSE	0	0	0	0	0
<b>Total</b>	<b>492</b>	<b>534</b>	<b>602</b>	<b>761</b>	<b>30</b>
FTE	4.6	5.1	6.2	7.5	0.3
<b>Adjustments (Nominal \$) **</b>					
Labor	-323	-323	-323	-323	0
Non-Labor	-12	-12	-12	-12	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-335</b>	<b>-335</b>	<b>-335</b>	<b>-335</b>	<b>0</b>
FTE	-3.0	-3.0	-3.0	-3.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	162	184	269	431	30
Non-Labor	-5	15	-3	-5	0
NSE	0	0	0	0	0
<b>Total</b>	<b>157</b>	<b>199</b>	<b>267</b>	<b>426</b>	<b>30</b>
FTE	1.6	2.1	3.2	4.5	0.3
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	25	29	40	62	5
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>25</b>	<b>29</b>	<b>40</b>	<b>62</b>	<b>5</b>
FTE	0.3	0.4	0.5	0.7	0.1
<b>Escalation to 2013\$</b>					
Labor	18	15	12	9	0
Non-Labor	-1	1	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>17</b>	<b>16</b>	<b>12</b>	<b>8</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	205	228	321	502	34
Non-Labor	-6	16	-3	-5	0
NSE	0	0	0	0	0
<b>Total</b>	<b>200</b>	<b>244</b>	<b>318</b>	<b>497</b>	<b>35</b>
FTE	1.9	2.5	3.7	5.2	0.4

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3098.000 - ENTERPRISE SERVER GROUP

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-323	-323	-323	-323	0
Non-Labor	-12	-12	-12	-12	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-335</b>	<b>-335</b>	<b>-335</b>	<b>-335</b>	<b>0</b>
FTE	-3.0	-3.0	-3.0	-3.0	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	-77	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031131349057
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-246	-9	0	-2.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031131811980
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-323</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
2010	-77	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031131431060
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-246	-9	0	-2.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031131848607
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-323</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
2011	-77	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031131548537
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-246	-9	0	-2.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031131941277
IT Employee Transfer from SDGE to SCG as of 2013							

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3098.000 - ENTERPRISE SERVER GROUP

<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>-323</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
2012	-77	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031131649047
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-246	-9	0	-2.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031132045847
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-323</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3099.000 - DESKTOP HARDWARE**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3099.000 - DESKTOP HARDWARE

**Activity Description:**

Develop and implement distributed server hardware and software standards, processes and procedures, and configurations on a system-wide basis. Provide desktop engineering services and guidance to CSC for system-wide desktop standards.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		1,554	1,274	1,276	1,031	596	188	203	219	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1,554</b>	<b>1,274</b>	<b>1,276</b>	<b>1,031</b>	<b>596</b>	<b>188</b>	<b>203</b>	<b>219</b>	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
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 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3099.000 - DESKTOP HARDWARE

**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	171	0	171	0.00	0	21	0	21	0.00
Directly Allocated	0	211	0	211	0.00	0	11	0	11	0.00
Subj. To % Alloc.	0	214	0	214	0.00	0	156	0	156	0.00
<b>Total Incurred</b>	<b>0</b>	<b>596</b>	<b>0</b>	<b>596</b>	<b>0.00</b>	<b>0</b>	<b>188</b>	<b>0</b>	<b>188</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				38.08%	38.08%			
SEU	54.70%	54.70%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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	21	0	21	0.00	0	21	0	21	0.00
Directly Allocated	0	11	0	11	0.00	0	11	0	11	0.00
Subj. To % Alloc.	0	171	0	171	0.00	0	187	0	187	0.00
<b>Total Incurred</b>	<b>0</b>	<b>203</b>	<b>0</b>	<b>203</b>	<b>0.00</b>	<b>0</b>	<b>219</b>	<b>0</b>	<b>219</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3099.000 - DESKTOP HARDWARE

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

**Cost Center Allocation Percentage for 2013**

The IT & Client Services cost centers provides infrastructure computing services for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. The LAN ID use across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

**Cost Center Allocation Percentage for 2014**

The IT & Client Services cost centers provides infrastructure computing services for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. The LAN ID use across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

**Cost Center Allocation Percentage for 2015**

The IT & Client Services cost centers provides infrastructure computing services for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. The LAN ID use across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

**Cost Center Allocation Percentage for 2016**

The IT & Client Services cost centers provides infrastructure computing services for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. The LAN ID use across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3099.000 - DESKTOP HARDWARE

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	596	596	596	-408	-393	-377	188	203	219
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>596</b>	<b>596</b>	<b>596</b>	<b>-408</b>	<b>-393</b>	<b>-377</b>	<b>188</b>	<b>203</b>	<b>219</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>
2014	0	-200	0	-200	0.0	1-Sided Adj

2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

Cost savings in 2014 related to reduction in Ricoh service levels. 2015 & 2016 estimated increases of 8% based upon historical averages of similar services and business-driven growth.

2014	0	-150	0	-150	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

Cost savings in 2014 related to reduction in Ricoh service levels. 2015 & 2016 estimated increases of 8% based upon historical averages of similar services and business-driven growth.

2014	0	-58	0	-58	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

Cost savings in 2014 related to reduction in Ricoh service levels. 2015 & 2016 estimated increases of 8% based upon historical averages of similar services and business-driven growth.

<b>2014 Total</b>	<b>0</b>	<b>-408</b>	<b>0</b>	<b>-408</b>	<b>0.0</b>	
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2015	0	-150	0	-150	0.0	1-Sided Adj
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*Note: Totals may include rounding differences.*

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 Cost Center: 2100-3099.000 - DESKTOP HARDWARE

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.						
Cost savings in 2014 related to reduction in Ricoh service levels. 2015 & 2016 estimated increases of 8% based upon historical averages of similar services and business-driven growth.						
2015	0	-200	0	-200	0.0	1-Sided Adj
2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.						
Cost savings in 2014 related to reduction in Ricoh service levels. 2015 & 2016 estimated increases of 8% based upon historical averages of similar services and business-driven growth.						
2015	0	-43	0	-43	0.0	1-Sided Adj
2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.						
Cost savings in 2014 related to reduction in Ricoh service levels. 2015 & 2016 estimated increases of 8% based upon historical averages of similar services and business-driven growth.						
<b>2015 Total</b>	<b>0</b>	<b>-393</b>	<b>0</b>	<b>-393</b>	<b>0.0</b>	
2016						
2016	0	-150	0	-150	0.0	1-Sided Adj
2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.						
Cost savings in 2014 related to reduction in Ricoh service levels. 2015 & 2016 estimated increases of 8% based upon historical averages of similar services and business-driven growth.						
2016	0	-27	0	-27	0.0	1-Sided Adj
2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.						
Cost savings in 2014 related to reduction in Ricoh service levels. 2015 & 2016 estimated increases of 8% based upon historical averages of similar services and business-driven growth.						
2016	0	-200	0	-200	0.0	1-Sided Adj

Note: Totals may include rounding differences.

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 Cost Center: 2100-3099.000 - DESKTOP HARDWARE

<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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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

Cost savings in 2014 related to reduction in Ricoh service levels. 2015 & 2016 estimated increases of 8% based upon historical averages of similar services and business-driven growth.

<b>2016 Total</b>	<b>0</b>	<b>-377</b>	<b>0</b>	<b>-377</b>	<b>0.0</b>	
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3099.000 - DESKTOP HARDWARE

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	0
Non-Labor	1,420	1,190	1,228	1,013	596
NSE	0	0	0	0	0
<b>Total</b>	<b>1,420</b>	<b>1,190</b>	<b>1,228</b>	<b>1,013</b>	<b>596</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	1,420	1,190	1,228	1,013	596
NSE	0	0	0	0	0
<b>Total</b>	<b>1,420</b>	<b>1,190</b>	<b>1,228</b>	<b>1,013</b>	<b>596</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	135	84	48	18	0
NSE	0	0	0	0	0
<b>Total</b>	<b>135</b>	<b>84</b>	<b>48</b>	<b>18</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	0
Non-Labor	1,554	1,274	1,276	1,031	596
NSE	0	0	0	0	0
<b>Total</b>	<b>1,554</b>	<b>1,274</b>	<b>1,276</b>	<b>1,031</b>	<b>596</b>
FTE	0.0	0.0	0.0	0.0	0.0

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

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

Note: Totals may include rounding differences.

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 Category: B. Infrastructure  
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 Cost Center: 2100-3099.000 - DESKTOP HARDWARE

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3100.000 - MIDDLEWARE AND INTERNET ENGINEERING**



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 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3100.000 - MIDDLEWARE AND INTERNET ENGINEERING

**Activity Description:**

Infrastructure engineering support for the following systems: email, Gateways, FTP, Enterprise System Management, middleware and Internet technologies such as directories and web and application servers that are used on a system-wide basis.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		1,297	1,290	1,119	962	1,067	1,067	1,067	1,067	
Non-Labor		29	20	41	23	198	198	198	198	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1,326</b>	<b>1,310</b>	<b>1,160</b>	<b>985</b>	<b>1,265</b>	<b>1,265</b>	<b>1,265</b>	<b>1,265</b>	
FTE		12.0	12.2	10.8	9.4	10.0	10.0	10.0	10.0	

*Note: Totals may include rounding differences.*

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 Cost Center: 2100-3100.000 - MIDDLEWARE AND INTERNET ENGINEERING

**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	0	0	1	0.01	1	0	0	1	0.01
Directly Allocated	61	5	0	66	0.62	61	5	0	66	0.62
Subj. To % Alloc.	1,005	193	0	1,198	9.32	1,005	193	0	1,198	9.32
<b>Total Incurred</b>	<b>1,067</b>	<b>198</b>	<b>0</b>	<b>1,265</b>	<b>9.95</b>	<b>1,067</b>	<b>198</b>	<b>0</b>	<b>1,265</b>	<b>9.95</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				38.08%	38.08%			
SEU	54.70%	54.70%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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	0	0	1	0.01	1	0	0	1	0.01
Directly Allocated	61	5	0	66	0.62	61	5	0	66	0.62
Subj. To % Alloc.	1,005	193	0	1,198	9.32	1,005	193	0	1,198	9.32
<b>Total Incurred</b>	<b>1,067</b>	<b>198</b>	<b>0</b>	<b>1,265</b>	<b>9.95</b>	<b>1,067</b>	<b>198</b>	<b>0</b>	<b>1,265</b>	<b>9.95</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

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Category: B. Infrastructure  
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Cost Center: 2100-3100.000 - MIDDLEWARE AND INTERNET ENGINEERING

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

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 Cost Center: 2100-3100.000 - MIDDLEWARE AND INTERNET ENGINEERING

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	1,067	1,067	1,067	0	0	0	1,067	1,067	1,067
Non-Labor	Base YR Rec	198	198	198	0	0	0	198	198	198
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>1,265</b>	<b>1,265</b>	<b>1,265</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,265</b>	<b>1,265</b>	<b>1,265</b>
FTE	Base YR Rec	10.0	10.0	10.0	0.0	0.0	0.0	10.0	10.0	10.0

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

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 Cost Center: 2100-3100.000 - MIDDLEWARE AND INTERNET ENGINEERING

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	1,210	1,223	1,123	1,010	921
Non-Labor	35	28	49	31	198
NSE	0	0	0	0	0
<b>Total</b>	<b>1,245</b>	<b>1,251</b>	<b>1,171</b>	<b>1,041</b>	<b>1,119</b>
FTE	12.3	12.4	11.3	10.1	8.5
<b>Adjustments (Nominal \$) **</b>					
Labor	-184	-184	-184	-184	0
Non-Labor	-9	-9	-9	-9	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-193</b>	<b>-193</b>	<b>-193</b>	<b>-193</b>	<b>0</b>
FTE	-2.0	-2.0	-2.0	-2.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	1,026	1,039	939	826	921
Non-Labor	26	19	40	22	198
NSE	0	0	0	0	0
<b>Total</b>	<b>1,052</b>	<b>1,058</b>	<b>979</b>	<b>849</b>	<b>1,119</b>
FTE	10.3	10.4	9.3	8.1	8.5
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	158	165	138	120	146
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>158</b>	<b>165</b>	<b>138</b>	<b>120</b>	<b>146</b>
FTE	1.7	1.8	1.5	1.3	1.5
<b>Escalation to 2013\$</b>					
Labor	112	85	42	16	0
Non-Labor	3	1	2	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>115</b>	<b>87</b>	<b>44</b>	<b>17</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	1,297	1,290	1,119	962	1,067
Non-Labor	29	20	41	23	198
NSE	0	0	0	0	0
<b>Total</b>	<b>1,326</b>	<b>1,310</b>	<b>1,160</b>	<b>985</b>	<b>1,265</b>
FTE	12.0	12.2	10.8	9.4	10.0

\* After company-wide exclusions of Non-GRC costs  
 \*\* Refer to "Detail of Adjustments to Recorded" page for line item adjustments  
 Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3100.000 - MIDDLEWARE AND INTERNET ENGINEERING

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-184	-184	-184	-184	0
Non-Labor	-9	-9	-9	-9	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-193</b>	<b>-193</b>	<b>-193</b>	<b>-193</b>	<b>0</b>
FTE	-2.0	-2.0	-2.0	-2.0	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	-73	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031132210050
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-65	-3	0	-1.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031132649260
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-46	-3	0	0.0	CCTR Transf	To 2200-2467.000	FFIGUERO20131 031133016723
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-184</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
2010	-73	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031132257350
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-65	-3	0	-1.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031132728263
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-46	-3	0	0.0	CCTR Transf	To 2200-2467.000	FFIGUERO20131 031133103660
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-184</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3100.000 - MIDDLEWARE AND INTERNET ENGINEERING

<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	-73	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031132407967
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-65	-3	0	-1.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031132814997
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-46	-3	0	0.0	CCTR Transf	To 2200-2467.000	FFIGUERO20131 031133131180
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-184</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
2012	-73	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031132451657
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-65	-3	0	-1.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031132854500
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-46	-3	0	0.0	CCTR Transf	To 2200-2467.000	FFIGUERO20131 031133207213
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-184</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

**Beginning of Workpaper**  
**2100-3103.000 - CSC CONTRACT SERVICES**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3103.000 - CSC CONTRACT SERVICES

**Activity Description:**

This cost center includes the CSC contract for desktop and other services.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		11,091	10,424	10,190	9,927	12,114	8,904	9,616	10,385	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>11,091</b>	<b>10,424</b>	<b>10,190</b>	<b>9,927</b>	<b>12,114</b>	<b>8,904</b>	<b>9,616</b>	<b>10,385</b>	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3103.000 - CSC CONTRACT SERVICES

**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	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.	0	12,114	0	12,114	0.00	0	8,904	0	8,904	0.00
<b>Total Incurred</b>	<b>0</b>	<b>12,114</b>	<b>0</b>	<b>12,114</b>	<b>0.00</b>	<b>0</b>	<b>8,904</b>	<b>0</b>	<b>8,904</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				38.08%	38.08%			
SEU	54.70%	54.70%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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.	0	9,616	0	9,616	0.00	0	10,385	0	10,385	0.00
<b>Total Incurred</b>	<b>0</b>	<b>9,616</b>	<b>0</b>	<b>9,616</b>	<b>0.00</b>	<b>0</b>	<b>10,385</b>	<b>0</b>	<b>10,385</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3103.000 - CSC CONTRACT SERVICES

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

**Cost Center Allocation Percentage for 2013**

This cost center provides Scalable Platform Services support for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by this cost center. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts.

**Cost Center Allocation Percentage for 2014**

This cost center provides Scalable Platform Services support for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by this cost center. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts.

**Cost Center Allocation Percentage for 2015**

This cost center provides Scalable Platform Services support for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by this cost center. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts.

**Cost Center Allocation Percentage for 2016**

This cost center provides Scalable Platform Services support for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by this cost center. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3103.000 - CSC CONTRACT SERVICES

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	12,114	12,114	12,114	-3,210	-2,498	-1,729	8,904	9,616	10,385
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>12,114</b>	<b>12,114</b>	<b>12,114</b>	<b>-3,210</b>	<b>-2,498</b>	<b>-1,729</b>	<b>8,904</b>	<b>9,616</b>	<b>10,385</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	0	-3,210	0	-3,210	0.0	1-Sided Adj

2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

Please see SDG&E-19-WP, cost center 2100-3103.000. This cost center includes desktop services, which reflects a non-recurring cost of \$3.2 million which was adjusted in 2014. An 8% escalation rate was applied to 2015-2016 based upon business-driven growth.

<b>2014 Total</b>	<b>0</b>	<b>-3,210</b>	<b>0</b>	<b>-3,210</b>	<b>0.0</b>	
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2015	0	-3,210	0	-3,210	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

Please see SDG&E-19-WP, cost center 2100-3103.000. This cost center includes desktop services, which reflects a non-recurring cost of \$3.2 million which was adjusted in 2014. An 8% escalation rate was applied to 2015-2016 based upon business-driven growth.

2015	0	712	0	712	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

Please see SDG&E-19-WP, cost center 2100-3103.000. This cost center includes desktop services, which reflects a non-recurring cost of \$3.2 million which was adjusted in 2014. An 8% escalation rate was applied to 2015-2016 based upon business-driven growth.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3103.000 - CSC CONTRACT SERVICES

<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>0</b>	<b>-2,498</b>	<b>0</b>	<b>-2,498</b>	<b>0.0</b>	
2016	0	-3,210	0	-3,210	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 &amp; 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>Please see SDG&amp;E-19-WP, cost center 2100-3103.000. This cost center includes desktop services, which reflects a non-recurring cost of \$3.2 million which was adjusted in 2014. An 8% escalation rate was applied to 2015-2016 based upon business-driven growth.</p>						
2016	0	712	0	712	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 &amp; 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>Please see SDG&amp;E-19-WP, cost center 2100-3103.000. This cost center includes desktop services, which reflects a non-recurring cost of \$3.2 million which was adjusted in 2014. An 8% escalation rate was applied to 2015-2016 based upon business-driven growth.</p>						
2016	0	769	0	769	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 &amp; 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>Please see SDG&amp;E-19-WP, cost center 2100-3103.000. This cost center includes desktop services, which reflects a non-recurring cost of \$3.2 million which was adjusted in 2014. An 8% escalation rate was applied to 2015-2016 based upon business-driven growth.</p>						
<b>2016 Total</b>	<b>0</b>	<b>-1,729</b>	<b>0</b>	<b>-1,729</b>	<b>0.0</b>	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3103.000 - CSC CONTRACT SERVICES

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	0
Non-Labor	10,131	9,735	9,807	9,758	12,114
NSE	0	0	0	0	0
<b>Total</b>	<b>10,131</b>	<b>9,735</b>	<b>9,807</b>	<b>9,758</b>	<b>12,114</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	10,131	9,735	9,807	9,758	12,114
NSE	0	0	0	0	0
<b>Total</b>	<b>10,131</b>	<b>9,735</b>	<b>9,807</b>	<b>9,758</b>	<b>12,114</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	961	689	382	169	0
NSE	0	0	0	0	0
<b>Total</b>	<b>961</b>	<b>689</b>	<b>382</b>	<b>169</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	0
Non-Labor	11,091	10,424	10,190	9,927	12,114
NSE	0	0	0	0	0
<b>Total</b>	<b>11,091</b>	<b>10,424</b>	<b>10,190</b>	<b>9,927</b>	<b>12,114</b>
FTE	0.0	0.0	0.0	0.0	0.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3103.000 - CSC CONTRACT SERVICES

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3105.000 - STORAGE AND ADMINISTRATION**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3105.000 - STORAGE AND ADMINISTRATION

**Activity Description:**

Performs all platform changes, change management, and system administration that can be achieved from a central point. Includes managing application integrity, email, web, disk storage administration, and disaster recovery testing.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		1,285	936	438	98	14	14	14	14	
Non-Labor		385	-77	30	2	0	0	0	0	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1,670</b>	<b>859</b>	<b>468</b>	<b>100</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>15</b>	
FTE		12.0	8.5	3.4	0.4	0.2	0.2	0.2	0.2	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3105.000 - STORAGE AND ADMINISTRATION

**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	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.	14	0	0	14	0.20	14	0	0	14	0.20
<b>Total Incurred</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>0.20</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>0.20</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
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.	14	0	0	14	0.20	14	0	0	14	0.20
<b>Total Incurred</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>0.20</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>0.20</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3105.000 - STORAGE AND ADMINISTRATION

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3105.000 - STORAGE AND ADMINISTRATION

**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	14	14	14	0	0	0	14	14	14
Non-Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>15</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>15</b>	<b>15</b>
FTE	Base YR Rec	0.2	0.2	0.2	0.0	0.0	0.0	0.2	0.2	0.2

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

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Cost Center: 2100-3105.000 - STORAGE AND ADMINISTRATION

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	1,227	965	578	295	13
Non-Labor	360	-66	38	11	0
NSE	0	0	0	0	0
<b>Total</b>	<b>1,588</b>	<b>899</b>	<b>616</b>	<b>306</b>	<b>13</b>
FTE	13.3	10.2	5.9	3.4	0.2
<b>Adjustments (Nominal \$) **</b>					
Labor	-211	-211	-211	-211	0
Non-Labor	-9	-6	-9	-9	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-220</b>	<b>-217</b>	<b>-220</b>	<b>-220</b>	<b>0</b>
FTE	-3.0	-3.0	-3.0	-3.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	1,017	754	367	85	13
Non-Labor	351	-72	29	2	0
NSE	0	0	0	0	0
<b>Total</b>	<b>1,368</b>	<b>682</b>	<b>397</b>	<b>86</b>	<b>13</b>
FTE	10.3	7.2	2.9	0.4	0.2
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	157	120	54	12	2
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>157</b>	<b>120</b>	<b>54</b>	<b>12</b>	<b>2</b>
FTE	1.7	1.2	0.5	0.1	0.0
<b>Escalation to 2013\$</b>					
Labor	111	62	16	2	0
Non-Labor	33	-5	1	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>145</b>	<b>57</b>	<b>18</b>	<b>2</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	1,285	936	438	98	14
Non-Labor	385	-77	30	2	0
NSE	0	0	0	0	0
<b>Total</b>	<b>1,670</b>	<b>859</b>	<b>468</b>	<b>100</b>	<b>15</b>
FTE	12.0	8.4	3.4	0.5	0.2

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

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

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3105.000 - STORAGE AND ADMINISTRATION

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-211	-211	-211	-211	0
Non-Labor	-9	-6	-9	-9	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-220</b>	<b>-217</b>	<b>-220</b>	<b>-220</b>	<b>0</b>
FTE	-3.0	-3.0	-3.0	-3.0	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	-71	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031134104543
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-70	-3	0	-1.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031134557253
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-69	-3	0	-1.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031134859597
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-211</b>	<b>-9</b>	<b>0</b>	<b>-3.0</b>			
2010	-71	-0.001	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031134141490
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-70	-3	0	-1.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031134629943
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-69	-3	0	-1.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031134939137
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-0.224	0	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 135002460
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							

Note: Totals may include rounding differences.

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 Cost Center: 2100-3105.000 - STORAGE AND ADMINISTRATION

<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>2010 Total</b>	<b>-211</b>	<b>-6</b>	<b>0</b>	<b>-3.0</b>			
2011	-71	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031134338783
							IT Employee Transfer from SDGE to SCG as of 2013
2011	-70	-3	0	-1.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031134713830
							IT Employee Transfer from SDGE to SCG as of 2013
2011	-69	-3	0	-1.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031135010527
							IT Employee Transfer from SDGE to SCG as of 2013
<b>2011 Total</b>	<b>-211</b>	<b>-9</b>	<b>0</b>	<b>-3.0</b>			
2012	-71	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031134441540
							IT Employee Transfer from SDGE to SCG as of 2013
2012	-70	-3	0	-1.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031134756100
							IT Employee Transfer from SDGE to SCG as of 2013
2012	-69	-3	0	-1.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031135039310
							IT Employee Transfer from SDGE to SCG as of 2013
<b>2012 Total</b>	<b>-211</b>	<b>-9</b>	<b>0</b>	<b>-3.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

**Beginning of Workpaper**  
**2100-3106.000 - NETWORK/TELECOM SERVICES - SDG&E**



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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3106.000 - NETWORK/TELECOM SERVICES - SDG&E

**Activity Description:**

Provides system-wide leased lines for transmission of voice and data information for utilities and affiliates including circuits, trunks, long distance, remote access, and vendor costs for billing analysis.

**Forecast Explanations:**

**Labor - Base YR Rec**

No labor in this cost center

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		6,249	6,611	6,661	6,674	5,842	6,408	6,921	7,475	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>6,249</b>	<b>6,611</b>	<b>6,661</b>	<b>6,674</b>	<b>5,842</b>	<b>6,408</b>	<b>6,921</b>	<b>7,475</b>	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
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 Category: B. Infrastructure  
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 Cost Center: 2100-3106.000 - NETWORK/TELECOM SERVICES - SDG&E

**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	560	0	560	0.00	0	560	0	560	0.00
Directly Allocated	0	22	0	22	0.00	0	22	0	22	0.00
Subj. To % Alloc.	0	5,260	0	5,260	0.00	0	5,826	0	5,826	0.00
<b>Total Incurred</b>	<b>0</b>	<b>5,842</b>	<b>0</b>	<b>5,842</b>	<b>0.00</b>	<b>0</b>	<b>6,408</b>	<b>0</b>	<b>6,408</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				38.08%	38.08%			
SEU	54.70%	54.70%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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	560	0	560	0.00	0	560	0	560	0.00
Directly Allocated	0	22	0	22	0.00	0	22	0	22	0.00
Subj. To % Alloc.	0	6,339	0	6,339	0.00	0	6,893	0	6,893	0.00
<b>Total Incurred</b>	<b>0</b>	<b>6,921</b>	<b>0</b>	<b>6,921</b>	<b>0.00</b>	<b>0</b>	<b>7,475</b>	<b>0</b>	<b>7,475</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

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Cost Center: 2100-3106.000 - NETWORK/TELECOM SERVICES - SDG&E

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

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 Cost Center: 2100-3106.000 - NETWORK/TELECOM SERVICES - SDG&E

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	5,842	5,842	5,842	566	1,079	1,633	6,408	6,921	7,475
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>5,842</b>	<b>5,842</b>	<b>5,842</b>	<b>566</b>	<b>1,079</b>	<b>1,633</b>	<b>6,408</b>	<b>6,921</b>	<b>7,475</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	0	566	0	566	0.0	1-Sided Adj

2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

<b>2014 Total</b>	<b>0</b>	<b>566</b>	<b>0</b>	<b>566</b>	<b>0.0</b>	
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2015	0	566	0	566	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

2015	0	513	0	513	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

*Note: Totals may include rounding differences.*



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Cost Center: 2100-3106.000 - NETWORK/TELECOM SERVICES - SDG&E

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	0
Non-Labor	5,206	5,606	5,823	6,561	5,842
NSE	0	0	0	0	0
<b>Total</b>	<b>5,206</b>	<b>5,606</b>	<b>5,823</b>	<b>6,561</b>	<b>5,842</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	502	568	588	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>502</b>	<b>568</b>	<b>588</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	5,708	6,174	6,411	6,561	5,842
NSE	0	0	0	0	0
<b>Total</b>	<b>5,708</b>	<b>6,174</b>	<b>6,411</b>	<b>6,561</b>	<b>5,842</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	541	437	250	113	0
NSE	0	0	0	0	0
<b>Total</b>	<b>541</b>	<b>437</b>	<b>250</b>	<b>113</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	0
Non-Labor	6,249	6,611	6,661	6,674	5,842
NSE	0	0	0	0	0
<b>Total</b>	<b>6,249</b>	<b>6,611</b>	<b>6,661</b>	<b>6,674</b>	<b>5,842</b>
FTE	0.0	0.0	0.0	0.0	0.0

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

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

Note: Totals may include rounding differences.

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 Cost Center: 2100-3106.000 - NETWORK/TELECOM SERVICES - SDG&E

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	0	0	0
Non-Labor	502	568	588	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>502</b>	<b>568</b>	<b>588</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
2009	0	502	0	0.0	CCTR Transf	From 2100-0042.000	CSCHRAMM2013 1025164552620
Transfer 2009 telemetry non-labor expenses from Advanced Meter Operations - Work Group 100000.000 cost center 2100-0042 to Information Technology USS cost center 2100-3106 (NETWORK/TELECOM SERVICES - SDG&E).							

<b>2009 Total</b>	<b>0</b>	<b>502</b>	<b>0</b>	<b>0.0</b>			
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2010	0	568	0	0.0	CCTR Transf	From 2100-0042.000	CSCHRAMM2013 1025164738520
Transfer 2010 telemetry non-labor expenses from Advanced Meter Operations - Work Group 100000.000 cost center 2100-0042 to Information Technology USS cost center 2100-3106 (NETWORK/TELECOM SERVICES - SDG&E).							

<b>2010 Total</b>	<b>0</b>	<b>568</b>	<b>0</b>	<b>0.0</b>			
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2011	0	588	0	0.0	CCTR Transf	From 2100-0042.000	CSCHRAMM2013 1025164818390
Transfer 2011 telemetry non-labor expenses from Advanced Meter Operations - Work Group 100000.000 cost center 2100-0042 to Information Technology USS cost center 2100-3106 (NETWORK/TELECOM SERVICES - SDG&E).							

<b>2011 Total</b>	<b>0</b>	<b>588</b>	<b>0</b>	<b>0.0</b>			
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<b>2012 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3106.000 - NETWORK/TELECOM SERVICES - SDG&E

<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>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*



**Beginning of Workpaper**  
**2100-3107.000 - ENTERPRISE OPERATIONS**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3107.000 - ENTERPRISE OPERATIONS

**Activity Description:**

This group is responsible for operating processes, monitoring and maintaining of the Enterprise and Distributive delivery infrastructures. This operational support structure is in place to ensure business service levels are attained while being cost efficient. In addition, this organization is capable of identifying services outages and provide a resolution process for first and second level problem tiers.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		593	699	776	701	1,002	1,002	1,002	1,002	
Non-Labor		38	42	80	97	129	129	129	129	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>631</b>	<b>741</b>	<b>856</b>	<b>798</b>	<b>1,131</b>	<b>1,131</b>	<b>1,131</b>	<b>1,131</b>	
FTE		6.2	7.6	8.3	7.7	10.6	10.6	10.6	10.6	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3107.000 - ENTERPRISE OPERATIONS

**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	0	0	0	0.00	0	0	0	0	0.00
Directly Allocated	34	0	0	34	0.28	34	0	0	34	0.28
Subj. To % Alloc.	969	129	0	1,098	10.31	969	129	0	1,098	10.31
<b>Total Incurred</b>	<b>1,003</b>	<b>129</b>	<b>0</b>	<b>1,132</b>	<b>10.59</b>	<b>1,003</b>	<b>129</b>	<b>0</b>	<b>1,132</b>	<b>10.59</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				38.08%	38.08%			
SEU	54.70%	54.70%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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	34	0	0	34	0.28	34	0	0	34	0.28
Subj. To % Alloc.	969	129	0	1,098	10.31	969	129	0	1,098	10.31
<b>Total Incurred</b>	<b>1,003</b>	<b>129</b>	<b>0</b>	<b>1,132</b>	<b>10.59</b>	<b>1,003</b>	<b>129</b>	<b>0</b>	<b>1,132</b>	<b>10.59</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3107.000 - ENTERPRISE OPERATIONS

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3107.000 - ENTERPRISE OPERATIONS

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	1,002	1,002	1,002	0	0	0	1,002	1,002	1,002
Non-Labor	Base YR Rec	129	129	129	0	0	0	129	129	129
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>1,131</b>	<b>1,131</b>	<b>1,131</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,131</b>	<b>1,131</b>	<b>1,131</b>
FTE	Base YR Rec	10.6	10.6	10.6	0.0	0.0	0.0	10.6	10.6	10.6

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3107.000 - ENTERPRISE OPERATIONS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	766	860	948	899	865
Non-Labor	47	51	89	107	129
NSE	0	0	0	0	0
<b>Total</b>	<b>813</b>	<b>911</b>	<b>1,037</b>	<b>1,006</b>	<b>994</b>
FTE	8.3	9.5	10.1	9.6	9.0
<b>Adjustments (Nominal \$) **</b>					
Labor	-297	-297	-297	-297	0
Non-Labor	-12	-12	-12	-12	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-309</b>	<b>-309</b>	<b>-309</b>	<b>-309</b>	<b>0</b>
FTE	-3.0	-3.0	-3.0	-3.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	469	563	651	602	865
Non-Labor	35	39	77	95	129
NSE	0	0	0	0	0
<b>Total</b>	<b>504</b>	<b>602</b>	<b>728</b>	<b>697</b>	<b>994</b>
FTE	5.3	6.5	7.1	6.6	9.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	72	90	96	87	137
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>72</b>	<b>90</b>	<b>96</b>	<b>87</b>	<b>137</b>
FTE	0.9	1.1	1.2	1.1	1.6
<b>Escalation to 2013\$</b>					
Labor	51	46	29	12	0
Non-Labor	3	3	3	2	0
NSE	0	0	0	0	0
<b>Total</b>	<b>55</b>	<b>49</b>	<b>32</b>	<b>14</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	593	699	776	701	1,002
Non-Labor	38	42	80	97	129
NSE	0	0	0	0	0
<b>Total</b>	<b>631</b>	<b>741</b>	<b>856</b>	<b>798</b>	<b>1,131</b>
FTE	6.2	7.6	8.3	7.7	10.6

\* 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.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3107.000 - ENTERPRISE OPERATIONS

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-297	-297	-297	-297	0
Non-Labor	-12	-12	-12	-12	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-309</b>	<b>-309</b>	<b>-309</b>	<b>-309</b>	<b>0</b>
FTE	-3.0	-3.0	-3.0	-3.0	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	-236	-9	0	-2.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031135205817
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-62	-3	0	-1.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031135501147
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-297</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
2010	-236	-9	0	-2.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031135241240
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-62	-3	0	-1.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031135539200
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-297</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
2011	-236	-9	0	-2.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031135330593
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-62	-3	0	-1.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031135602730
IT Employee Transfer from SDGE to SCG as of 2013							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3107.000 - ENTERPRISE OPERATIONS

<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>-297</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
2012	-236	-9	0	-2.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031135409890
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-62	-3	0	-1.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031135635500
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-297</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*



**Beginning of Workpaper**  
**2100-3334.000 - SERVER MANAGEMENT**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3334.000 - SERVER MANAGEMENT

**Activity Description:**

This Operations support group is responsible for providing 7/24 coverage and maintainability for distributive UNIX class servers at prime locations of RB, CP, SD Headquarters, MPK, and GCT. This group also has this same responsibility for remote locations, such as company Bases and Payment Offices.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		425	444	417	839	762	762	762	762	
Non-Labor		46	22	10	203	76	76	76	76	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>472</b>	<b>466</b>	<b>427</b>	<b>1,042</b>	<b>838</b>	<b>838</b>	<b>838</b>	<b>838</b>	
FTE		4.5	5.0	4.6	8.4	8.3	8.3	8.3	8.3	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3334.000 - SERVER MANAGEMENT

**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	0	0	1	0.01	1	0	0	1	0.01
Directly Allocated	28	11	0	39	0.21	28	11	0	39	0.21
Subj. To % Alloc.	734	64	0	798	8.06	734	64	0	798	8.06
<b>Total Incurred</b>	<b>763</b>	<b>75</b>	<b>0</b>	<b>838</b>	<b>8.28</b>	<b>763</b>	<b>75</b>	<b>0</b>	<b>838</b>	<b>8.28</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				38.08%	38.08%			
SEU	54.70%	54.70%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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	0	0	1	0.01	1	0	0	1	0.01
Directly Allocated	28	11	0	39	0.21	28	11	0	39	0.21
Subj. To % Alloc.	734	64	0	798	8.06	734	64	0	798	8.06
<b>Total Incurred</b>	<b>763</b>	<b>75</b>	<b>0</b>	<b>838</b>	<b>8.28</b>	<b>763</b>	<b>75</b>	<b>0</b>	<b>838</b>	<b>8.28</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3334.000 - SERVER MANAGEMENT

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3334.000 - SERVER MANAGEMENT

**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	762	762	762	0	0	0	762	762	762
Non-Labor	Base YR Rec	76	76	76	0	0	0	76	76	76
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>838</b>	<b>838</b>	<b>838</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>838</b>	<b>838</b>	<b>838</b>
FTE	Base YR Rec	8.3	8.3	8.3	0.0	0.0	0.0	8.3	8.3	8.3

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3334.000 - SERVER MANAGEMENT

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	337	359	350	720	658
Non-Labor	42	20	10	200	76
NSE	0	0	0	0	0
<b>Total</b>	<b>379</b>	<b>379</b>	<b>359</b>	<b>920</b>	<b>734</b>
FTE	3.9	4.3	4.0	7.3	7.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	-1	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>-1</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	337	358	350	720	658
Non-Labor	42	20	10	200	76
NSE	0	0	0	0	0
<b>Total</b>	<b>379</b>	<b>378</b>	<b>359</b>	<b>920</b>	<b>734</b>
FTE	3.9	4.3	4.0	7.3	7.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	52	57	52	104	104
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>52</b>	<b>57</b>	<b>52</b>	<b>104</b>	<b>104</b>
FTE	0.7	0.7	0.6	1.2	1.2
<b>Escalation to 2013\$</b>					
Labor	37	29	16	14	0
Non-Labor	4	1	0	3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>41</b>	<b>31</b>	<b>16</b>	<b>18</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	425	444	417	839	762
Non-Labor	46	22	10	203	76
NSE	0	0	0	0	0
<b>Total</b>	<b>472</b>	<b>466</b>	<b>427</b>	<b>1,042</b>	<b>838</b>
FTE	4.6	5.0	4.6	8.5	8.2

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3334.000 - SERVER MANAGEMENT

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	-0.608	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>-0.608</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2009 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
2010	-0.608	0	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 135305117
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2010 Total</b>	<b>-0.608</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2011 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2012 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3335.000 - UNIX SERVER GROUP**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3335.000 - UNIX SERVER GROUP

**Activity Description:**

This Operations support group is responsible for providing 7/24 system-wide coverage and maintainability for servers at prime locations of RB, CP, SD Headquarters, MPK, and GCT. This group also has this same responsibility for remote locations, such as company Bases and Payment Offices.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		460	384	164	234	30	30	30	30	
Non-Labor		32	23	13	23	20	20	20	20	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>492</b>	<b>407</b>	<b>177</b>	<b>258</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	
FTE		4.9	3.8	1.3	1.9	0.3	0.3	0.3	0.3	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3335.000 - UNIX SERVER GROUP

**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	0.03	3	0	0	3	0.03
Directly Allocated	1	0	0	1	0.01	1	0	0	1	0.01
Subj. To % Alloc.	27	20	0	47	0.24	27	20	0	47	0.24
<b>Total Incurred</b>	<b>31</b>	<b>20</b>	<b>0</b>	<b>51</b>	<b>0.28</b>	<b>31</b>	<b>20</b>	<b>0</b>	<b>51</b>	<b>0.28</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
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	0.03	3	0	0	3	0.03
Directly Allocated	1	0	0	1	0.01	1	0	0	1	0.01
Subj. To % Alloc.	27	20	0	47	0.24	27	20	0	47	0.24
<b>Total Incurred</b>	<b>31</b>	<b>20</b>	<b>0</b>	<b>51</b>	<b>0.28</b>	<b>31</b>	<b>20</b>	<b>0</b>	<b>51</b>	<b>0.28</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3335.000 - UNIX SERVER GROUP

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3335.000 - UNIX SERVER GROUP

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	30	30	30	0	0	0	30	30	30
Non-Labor	Base YR Rec	20	20	20	0	0	0	20	20	20
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>50</b>	<b>50</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>50</b>	<b>50</b>
FTE	Base YR Rec	0.3	0.3	0.3	0.0	0.0	0.0	0.3	0.3	0.3

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3335.000 - UNIX SERVER GROUP

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	702	647	547	611	26
Non-Labor	44	36	30	41	20
NSE	0	0	0	0	0
<b>Total</b>	<b>746</b>	<b>684</b>	<b>578</b>	<b>652</b>	<b>46</b>
FTE	7.2	6.2	5.1	5.7	0.2
<b>Adjustments (Nominal \$) **</b>					
Labor	-338	-338	-410	-410	0
Non-Labor	-15	-15	-18	-18	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-353</b>	<b>-353</b>	<b>-428</b>	<b>-428</b>	<b>0</b>
FTE	-3.0	-3.0	-4.0	-4.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	364	310	138	201	26
Non-Labor	29	21	12	23	20
NSE	0	0	0	0	0
<b>Total</b>	<b>393</b>	<b>331</b>	<b>150</b>	<b>224</b>	<b>46</b>
FTE	4.2	3.2	1.1	1.7	0.2
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	56	49	20	29	4
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>56</b>	<b>49</b>	<b>20</b>	<b>29</b>	<b>4</b>
FTE	0.7	0.6	0.2	0.3	0.0
<b>Escalation to 2013\$</b>					
Labor	40	25	6	4	0
Non-Labor	3	1	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>43</b>	<b>27</b>	<b>7</b>	<b>4</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	460	384	164	234	30
Non-Labor	32	23	13	23	20
NSE	0	0	0	0	0
<b>Total</b>	<b>492</b>	<b>407</b>	<b>177</b>	<b>258</b>	<b>50</b>
FTE	4.9	3.8	1.3	2.0	0.2

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3335.000 - UNIX SERVER GROUP

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-338	-338	-410	-410	0
Non-Labor	-15	-15	-18	-18	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-353</b>	<b>-353</b>	<b>-428</b>	<b>-428</b>	<b>0</b>
FTE	-3.0	-3.0	-4.0	-4.0	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	-94	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031135728137
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-141	-6	0	-1.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031140319237
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-103	-6	0	-1.0	CCTR Transf	To 2200-2467.000	FFIGUERO20131 031140611170
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-338</b>	<b>-15</b>	<b>0</b>	<b>-3.0</b>			
2010	-94	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031135840770
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-141	-6	0	-1.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031140405447
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-103	-6	0	-1.0	CCTR Transf	To 2200-2467.000	FFIGUERO20131 031140651547
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-338</b>	<b>-15</b>	<b>0</b>	<b>-3.0</b>			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3335.000 - UNIX SERVER GROUP

<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	-94	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031135921700
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-72	-3	0	-1.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031140151833
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-141	-6	0	-1.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031140443080
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-103	-6	0	-1.0	CCTR Transf	To 2200-2467.000	FFIGUERO20131 031140722197
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-410</b>	<b>-18</b>	<b>0</b>	<b>-4.0</b>			
2012	-94	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031140009180
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-72	-3	0	-1.0	CCTR Transf	To 2200-2464.000	FFIGUERO20131 031140226983
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-141	-6	0	-1.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031140515767
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-103	-6	0	-1.0	CCTR Transf	To 2200-2467.000	FFIGUERO20131 031140756083
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-410</b>	<b>-18</b>	<b>0</b>	<b>-4.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

**Beginning of Workpaper**  
**2100-3494.000 - DISTRIBUTED CONTRACTS**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3494.000 - DISTRIBUTED CONTRACTS

**Activity Description:**

This Cost Center is for planning and payment of Hardware and Software maintenance contracts for the Distributed Server Environment

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		9,889	9,839	8,996	6,649	3,232	4,604	4,972	5,370	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>9,889</b>	<b>9,839</b>	<b>8,996</b>	<b>6,649</b>	<b>3,232</b>	<b>4,604</b>	<b>4,972</b>	<b>5,370</b>	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3494.000 - DISTRIBUTED CONTRACTS

**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	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.	0	3,232	0	3,232	0.00	0	4,604	0	4,604	0.00
<b>Total Incurred</b>	<b>0</b>	<b>3,232</b>	<b>0</b>	<b>3,232</b>	<b>0.00</b>	<b>0</b>	<b>4,604</b>	<b>0</b>	<b>4,604</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				38.08%	38.08%			
SEU	54.70%	54.70%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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.	0	4,972	0	4,972	0.00	0	5,370	0	5,370	0.00
<b>Total Incurred</b>	<b>0</b>	<b>4,972</b>	<b>0</b>	<b>4,972</b>	<b>0.00</b>	<b>0</b>	<b>5,370</b>	<b>0</b>	<b>5,370</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3494.000 - DISTRIBUTED CONTRACTS

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3494.000 - DISTRIBUTED CONTRACTS

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	3,232	3,232	3,232	1,372	1,740	2,138	4,604	4,972	5,370
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>3,232</b>	<b>3,232</b>	<b>3,232</b>	<b>1,372</b>	<b>1,740</b>	<b>2,138</b>	<b>4,604</b>	<b>4,972</b>	<b>5,370</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	0	1,372	0	1,372	0.0	1-Sided Adj

2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

<b>2014 Total</b>	<b>0</b>	<b>1,372</b>	<b>0</b>	<b>1,372</b>	<b>0.0</b>	
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2015	0	1,372	0	1,372	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

2015	0	368	0	368	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

*Note: Totals may include rounding differences.*

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 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3494.000 - DISTRIBUTED CONTRACTS

<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>0</b>	<b>1,740</b>	<b>0</b>	<b>1,740</b>	<b>0.0</b>	
2016	0	1,372	0	1,372	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 &amp; 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.</p>						
2016	0	368	0	368	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 &amp; 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.</p>						
2016	0	398	0	398	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 &amp; 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.</p>						
<b>2016 Total</b>	<b>0</b>	<b>2,138</b>	<b>0</b>	<b>2,138</b>	<b>0.0</b>	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3494.000 - DISTRIBUTED CONTRACTS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	0
Non-Labor	9,033	9,188	8,658	6,536	3,232
NSE	0	0	0	0	0
<b>Total</b>	<b>9,033</b>	<b>9,188</b>	<b>8,658</b>	<b>6,536</b>	<b>3,232</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	9,033	9,188	8,658	6,536	3,232
NSE	0	0	0	0	0
<b>Total</b>	<b>9,033</b>	<b>9,188</b>	<b>8,658</b>	<b>6,536</b>	<b>3,232</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	856	650	337	113	0
NSE	0	0	0	0	0
<b>Total</b>	<b>856</b>	<b>650</b>	<b>337</b>	<b>113</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	0
Non-Labor	9,889	9,839	8,996	6,649	3,232
NSE	0	0	0	0	0
<b>Total</b>	<b>9,889</b>	<b>9,839</b>	<b>8,996</b>	<b>6,649</b>	<b>3,232</b>
FTE	0.0	0.0	0.0	0.0	0.0

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

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

Note: Totals may include rounding differences.

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2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3494.000 - DISTRIBUTED CONTRACTS

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3495.000 - MAINFRAME CONTRACTS**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3495.000 - MAINFRAME CONTRACTS

**Activity Description:**

This Cost Center maintains the plan and payment of the Enterprise Server Contracts. All expenses for the maintenance of the Corporation Enterprise Server are recorded in this Cost Center.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		5,905	5,830	5,938	6,441	5,701	6,077	6,563	7,088	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>5,905</b>	<b>5,830</b>	<b>5,938</b>	<b>6,441</b>	<b>5,701</b>	<b>6,077</b>	<b>6,563</b>	<b>7,088</b>	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
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 Cost Center: 2100-3495.000 - MAINFRAME CONTRACTS

**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	0	0	0	0.00	0	0	0	0	0.00
Directly Allocated	0	102	0	102	0.00	0	102	0	102	0.00
Subj. To % Alloc.	0	5,599	0	5,599	0.00	0	5,975	0	5,975	0.00
<b>Total Incurred</b>	<b>0</b>	<b>5,701</b>	<b>0</b>	<b>5,701</b>	<b>0.00</b>	<b>0</b>	<b>6,077</b>	<b>0</b>	<b>6,077</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				38.08%	38.08%			
SEU	54.70%	54.70%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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	102	0	102	0.00	0	102	0	102	0.00
Subj. To % Alloc.	0	6,461	0	6,461	0.00	0	6,986	0	6,986	0.00
<b>Total Incurred</b>	<b>0</b>	<b>6,563</b>	<b>0</b>	<b>6,563</b>	<b>0.00</b>	<b>0</b>	<b>7,088</b>	<b>0</b>	<b>7,088</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
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Cost Center: 2100-3495.000 - MAINFRAME CONTRACTS

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
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 Category: B. Infrastructure  
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 Cost Center: 2100-3495.000 - MAINFRAME CONTRACTS

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	5,701	5,701	5,701	376	862	1,387	6,077	6,563	7,088
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>5,701</b>	<b>5,701</b>	<b>5,701</b>	<b>376</b>	<b>862</b>	<b>1,387</b>	<b>6,077</b>	<b>6,563</b>	<b>7,088</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	0	376	0	376	0.0	1-Sided Adj

2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

<b>2014 Total</b>	<b>0</b>	<b>376</b>	<b>0</b>	<b>376</b>	<b>0.0</b>	
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2015	0	376	0	376	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

2015	0	486	0	486	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

*Note: Totals may include rounding differences.*

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 Cost Center: 2100-3495.000 - MAINFRAME CONTRACTS

<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>0</b>	<b>862</b>	<b>0</b>	<b>862</b>	<b>0.0</b>	
2016	0	376	0	376	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 &amp; 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.</p>						
2016	0	486	0	486	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 &amp; 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.</p>						
2016	0	525	0	525	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 &amp; 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.</p>						
<b>2016 Total</b>	<b>0</b>	<b>1,387</b>	<b>0</b>	<b>1,387</b>	<b>0.0</b>	

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3495.000 - MAINFRAME CONTRACTS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	0
Non-Labor	5,394	5,445	5,716	6,331	5,701
NSE	0	0	0	0	0
<b>Total</b>	<b>5,394</b>	<b>5,445</b>	<b>5,716</b>	<b>6,331</b>	<b>5,701</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	5,394	5,445	5,716	6,331	5,701
NSE	0	0	0	0	0
<b>Total</b>	<b>5,394</b>	<b>5,445</b>	<b>5,716</b>	<b>6,331</b>	<b>5,701</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	511	385	223	109	0
NSE	0	0	0	0	0
<b>Total</b>	<b>511</b>	<b>385</b>	<b>223</b>	<b>109</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	0
Non-Labor	5,905	5,830	5,938	6,441	5,701
NSE	0	0	0	0	0
<b>Total</b>	<b>5,905</b>	<b>5,830</b>	<b>5,938</b>	<b>6,441</b>	<b>5,701</b>
FTE	0.0	0.0	0.0	0.0	0.0

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

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

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3495.000 - MAINFRAME CONTRACTS

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3498.000 - INFRASTRUCTURE PROGRAM OFFICE**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3498.000 - INFRASTRUCTURE PROGRAM OFFICE

**Activity Description:**

This Cost Center provides project management and development for IT related projects enterprise wide.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		644	581	78	127	286	286	286	286	
Non-Labor		29	32	29	27	12	12	12	12	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>673</b>	<b>613</b>	<b>107</b>	<b>155</b>	<b>298</b>	<b>298</b>	<b>298</b>	<b>298</b>	
FTE		5.3	4.9	0.6	0.8	2.0	2.0	2.0	2.0	

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
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 Cost Center: 2100-3498.000 - INFRASTRUCTURE PROGRAM OFFICE

**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	71	0	0	71	0.26	71	0	0	71	0.26
Directly Allocated	9	0	0	9	0.09	9	0	0	9	0.09
Subj. To % Alloc.	206	12	0	218	1.68	206	12	0	218	1.68
<b>Total Incurred</b>	<b>286</b>	<b>12</b>	<b>0</b>	<b>298</b>	<b>2.03</b>	<b>286</b>	<b>12</b>	<b>0</b>	<b>298</b>	<b>2.03</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				38.08%	38.08%			
SEU	54.70%	54.70%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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	71	0	0	71	0.26	71	0	0	71	0.26
Directly Allocated	9	0	0	9	0.09	9	0	0	9	0.09
Subj. To % Alloc.	206	12	0	218	1.68	206	12	0	218	1.68
<b>Total Incurred</b>	<b>286</b>	<b>12</b>	<b>0</b>	<b>298</b>	<b>2.03</b>	<b>286</b>	<b>12</b>	<b>0</b>	<b>298</b>	<b>2.03</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

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Cost Center: 2100-3498.000 - INFRASTRUCTURE PROGRAM OFFICE

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

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 Cost Center: 2100-3498.000 - INFRASTRUCTURE PROGRAM OFFICE

**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	286	286	286	0	0	0	286	286	286
Non-Labor	Base YR Rec	12	12	12	0	0	0	12	12	12
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>298</b>	<b>298</b>	<b>298</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>298</b>	<b>298</b>	<b>298</b>
FTE	Base YR Rec	2.0	2.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

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Cost Center: 2100-3498.000 - INFRASTRUCTURE PROGRAM OFFICE

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	620	580	176	220	247
Non-Labor	29	33	31	30	12
NSE	0	0	0	0	0
<b>Total</b>	<b>649</b>	<b>614</b>	<b>207</b>	<b>250</b>	<b>259</b>
FTE	5.5	5.2	1.5	1.7	1.7
<b>Adjustments (Nominal \$) **</b>					
Labor	-110	-113	-110	-110	0
Non-Labor	-3	-3	-3	-3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-113</b>	<b>-116</b>	<b>-113</b>	<b>-113</b>	<b>0</b>
FTE	-1.0	-1.0	-1.0	-1.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	509	468	66	109	247
Non-Labor	26	30	28	27	12
NSE	0	0	0	0	0
<b>Total</b>	<b>536</b>	<b>498</b>	<b>93</b>	<b>136</b>	<b>259</b>
FTE	4.5	4.2	0.5	0.7	1.7
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	79	74	10	16	39
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>79</b>	<b>74</b>	<b>10</b>	<b>16</b>	<b>39</b>
FTE	0.8	0.7	0.1	0.1	0.3
<b>Escalation to 2013\$</b>					
Labor	56	38	3	2	0
Non-Labor	2	2	1	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>58</b>	<b>41</b>	<b>4</b>	<b>3</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	644	581	78	127	286
Non-Labor	29	32	29	27	12
NSE	0	0	0	0	0
<b>Total</b>	<b>673</b>	<b>613</b>	<b>107</b>	<b>155</b>	<b>298</b>
FTE	5.3	4.9	0.6	0.8	2.0

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

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

Note: Totals may include rounding differences.

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Category: B. Infrastructure  
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Cost Center: 2100-3498.000 - INFRASTRUCTURE PROGRAM OFFICE

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-110	-113	-110	-110	0
Non-Labor	-3	-3	-3	-3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-113</b>	<b>-116</b>	<b>-113</b>	<b>-113</b>	<b>0</b>
FTE	-1.0	-1.0	-1.0	-1.0	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	-110	-3	0	-1.0	CCTR Transf	To 2200-2495.000	FFIGUERO20131 031141004447
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-110</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			
2010	-110	-3	0	-1.0	CCTR Transf	To 2200-2495.000	FFIGUERO20131 031141110753
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-2	0	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 135409877
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2010 Total</b>	<b>-113</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			
2011	-110	-3	0	-1.0	CCTR Transf	To 2200-2495.000	FFIGUERO20131 031141238353
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-110</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			
2012	-110	-3	0	-1.0	CCTR Transf	To 2200-2495.000	FFIGUERO20131 031141331593
IT Employee Transfer from SDGE to SCG as of 2013							

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>
<b>2012 Total</b>	<b>-110</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3500.000 - IT NETWORK FIELD - LAN/WAN VOICE**



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 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3500.000 - IT NETWORK FIELD - LAN/WAN VOICE

**Activity Description:**

This cost center performs contract management and administration and planning activities for the maintenance contracts associated with support for the Distributed Server Environment and Network systems, Scalable Platform Services, Client Technology & Depot Services, SempraHelp & IT Service Management. Also, performs management and administration of leased circuits contracts costs and Telephone invoices.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years	2009	2010	2011	2012	2013	2014	2015	2016		
Labor	395	124	181	333	304	304	304	304		
Non-Labor	115	61	91	94	15	15	15	15		
NSE	0	0	0	0	0	0	0	0		
<b>Total</b>	<b>510</b>	<b>185</b>	<b>272</b>	<b>428</b>	<b>319</b>	<b>319</b>	<b>319</b>	<b>319</b>		
FTE	4.5	1.4	2.1	3.6	3.9	3.9	3.9	3.9		

*Note: Totals may include rounding differences.*

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 Cost Center: 2100-3500.000 - IT NETWORK FIELD - LAN/WAN VOICE

**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	0	0	2	0.00	2	0	0	2	0.00
Directly Allocated	5	0	0	5	0.05	5	0	0	5	0.05
Subj. To % Alloc.	297	15	0	312	3.82	297	15	0	312	3.82
<b>Total Incurred</b>	<b>304</b>	<b>15</b>	<b>0</b>	<b>319</b>	<b>3.87</b>	<b>304</b>	<b>15</b>	<b>0</b>	<b>319</b>	<b>3.87</b>
<b>% Allocation</b>										
Retained	41.63%	41.63%				38.31%	38.31%			
SEU	53.17%	53.17%				55.65%	55.65%			
CORP	4.27%	4.27%				4.16%	4.16%			
Unreg	0.93%	0.93%				1.88%	1.88%			

	2015 Adjusted-Forecast					2016 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	2	0	0	2	0.00	2	0	0	2	0.00
Directly Allocated	5	0	0	5	0.05	5	0	0	5	0.05
Subj. To % Alloc.	297	15	0	312	3.82	297	15	0	312	3.82
<b>Total Incurred</b>	<b>304</b>	<b>15</b>	<b>0</b>	<b>319</b>	<b>3.87</b>	<b>304</b>	<b>15</b>	<b>0</b>	<b>319</b>	<b>3.87</b>
<b>% Allocation</b>										
Retained	38.31%	38.31%				38.31%	38.31%			
SEU	55.65%	55.65%				55.65%	55.65%			
CORP	4.16%	4.16%				4.16%	4.16%			
Unreg	1.88%	1.88%				1.88%	1.88%			

Note: Totals may include rounding differences.

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Cost Center: 2100-3500.000 - IT NETWORK FIELD - LAN/WAN VOICE

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

**Cost Center Allocation Percentage for 2013**

The IT SERVICE MANAGEMENT & SUPPORT SVCS cost center costs are for maintenance contract costs for hardware and software equipment that provides Distributed Server Environment and Network systems, Scalable Platform Services, Client Technology & Depot Services, SempraHelp & IT Service Management. System functions for computer users at SDGE, SCG and Parent, and voice support functions for Telecommunications device users at SDGE, SCG, Parent and certain Global Companies -Voice count. Computer users are provided a LAN ID in order to access and use computing services. Therefore, LAN ID is the most representative determination for the allocation of systems maintenance contract costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to employees and contractors. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. The Telephone devices and LAN ID use across companies are then measured on an staff work allocation basis accordingly to the basis of support they provide.

**Cost Center Allocation Percentage for 2014**

The IT SERVICE MANAGEMENT & SUPPORT SVCS cost center costs are for maintenance contract costs for hardware and software equipment that provides Distributed Server Environment and Network systems, Scalable Platform Services, Client Technology & Depot Services, SempraHelp & IT Service Management. System functions for computer users at SDGE, SCG and Parent, and voice support functions for Telecommunications device users at SDGE, SCG, Parent and certain Global Companies -Voice count. Computer users are provided a LAN ID in order to access and use computing services. Therefore, LAN ID is the most representative determination for the allocation of systems maintenance contract costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to employees and contractors. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. The Telephone devices and LAN ID use across companies are then measured on an staff work allocation basis accordingly to the basis of support they provide.

**Cost Center Allocation Percentage for 2015**

*Note: Totals may include rounding differences.*

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Cost Center: 2100-3500.000 - IT NETWORK FIELD - LAN/WAN VOICE

The IT SERVICE MANAGEMENT & SUPPORT SVCS cost center costs are for maintenance contract costs for hardware and software equipment that provides Distributed Server Environment and Network systems, Scalable Platform Services, Client Technology & Depot Services, SempraHelp & IT Service Management. System functions for computer users at SDGE, SCG and Parent, and voice support functions for Telecommunications device users at SDGE, SCG, Parent and certain Global Companies -Voice count. Computer users are provided a LAN ID in order to access and use computing services. Therefore, LAN ID is the most representative determination for the allocation of systems maintenance contract costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to employees and contractors. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. The Telephone devices and LAN ID use across companies are then measured on an staff work allocation basis accordingly to the basis of support they provide.

**Cost Center Allocation Percentage for 2016**

The IT SERVICE MANAGEMENT & SUPPORT SVCS cost center costs are for maintenance contract costs for hardware and software equipment that provides Distributed Server Environment and Network systems, Scalable Platform Services, Client Technology & Depot Services, SempraHelp & IT Service Management. System functions for computer users at SDGE, SCG and Parent, and voice support functions for Telecommunications device users at SDGE, SCG, Parent and certain Global Companies -Voice count. Computer users are provided a LAN ID in order to access and use computing services. Therefore, LAN ID is the most representative determination for the allocation of systems maintenance contract costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to employees and contractors. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. The Telephone devices and LAN ID use across companies are then measured on an staff work allocation basis accordingly to the basis of support they provide.

*Note: Totals may include rounding differences.*

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 Cost Center: 2100-3500.000 - IT NETWORK FIELD - LAN/WAN VOICE

**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	304	304	304	0	0	0	304	304	304
Non-Labor	Base YR Rec	15	15	15	0	0	0	15	15	15
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>319</b>	<b>319</b>	<b>319</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>319</b>	<b>319</b>	<b>319</b>
FTE	Base YR Rec	3.9	3.9	3.9	0.0	0.0	0.0	3.9	3.9	3.9

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

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Cost Center: 2100-3500.000 - IT NETWORK FIELD - LAN/WAN VOICE

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	731	568	620	754	262
Non-Labor	123	78	109	114	15
NSE	0	0	0	0	0
<b>Total</b>	<b>853</b>	<b>646</b>	<b>729</b>	<b>868</b>	<b>278</b>
FTE	8.8	7.2	7.8	9.1	3.3
<b>Adjustments (Nominal \$) **</b>					
Labor	-418	-468	-468	-468	0
Non-Labor	-18	-21	-21	-21	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-436</b>	<b>-489</b>	<b>-489</b>	<b>-489</b>	<b>0</b>
FTE	-5.0	-6.0	-6.0	-6.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	313	100	152	286	262
Non-Labor	105	57	88	93	15
NSE	0	0	0	0	0
<b>Total</b>	<b>417</b>	<b>157</b>	<b>239</b>	<b>379</b>	<b>278</b>
FTE	3.8	1.2	1.8	3.1	3.3
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	48	16	22	41	42
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>48</b>	<b>16</b>	<b>22</b>	<b>41</b>	<b>42</b>
FTE	0.6	0.2	0.3	0.5	0.6
<b>Escalation to 2013\$</b>					
Labor	34	8	7	6	0
Non-Labor	10	4	3	2	0
NSE	0	0	0	0	0
<b>Total</b>	<b>44</b>	<b>12</b>	<b>10</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	395	124	181	333	304
Non-Labor	115	61	91	94	15
NSE	0	0	0	0	0
<b>Total</b>	<b>510</b>	<b>185</b>	<b>272</b>	<b>428</b>	<b>319</b>
FTE	4.4	1.4	2.1	3.6	3.9

\* 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.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3500.000 - IT NETWORK FIELD - LAN/WAN VOICE

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-418	-468	-468	-468	0
Non-Labor	-18	-21	-21	-21	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-436</b>	<b>-489</b>	<b>-489</b>	<b>-489</b>	<b>0</b>
FTE	-5.0	-6.0	-6.0	-6.0	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	-418	-18	0	-5.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031141516903
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-418</b>	<b>-18</b>	<b>0</b>	<b>-5.0</b>			
2010	-468	-21	0	-6.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031141610440
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-468</b>	<b>-21</b>	<b>0</b>	<b>-6.0</b>			
2011	-468	-21	0	-6.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031141654003
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-468</b>	<b>-21</b>	<b>0</b>	<b>-6.0</b>			
2012	-468	-21	0	-6.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031141726467
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-468</b>	<b>-21</b>	<b>0</b>	<b>-6.0</b>			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3500.000 - IT NETWORK FIELD - LAN/WAN VOICE

<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>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*



**Beginning of Workpaper**  
**2100-3501.000 - IT NETWORK HARDWARE SOFTWARE MAINTENANCE**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3501.000 - IT NETWORK HARDWARE SOFTWARE MAINTENANCE

**Activity Description:**

This cost center includes the telecom maintenance agreements for system-wide networks, including both utilities, Corporate Center (parent), and all the unregulated affiliates. Contracts include the maintenance costs for both telecom hardware and software.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		3,507	2,485	2,852	1,130	1,066	1,075	1,161	1,254	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>3,507</b>	<b>2,485</b>	<b>2,852</b>	<b>1,130</b>	<b>1,066</b>	<b>1,075</b>	<b>1,161</b>	<b>1,254</b>	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3501.000 - IT NETWORK HARDWARE SOFTWARE MAINTENANCE

**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	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.	0	1,066	0	1,066	0.00	0	1,075	0	1,075	0.00
<b>Total Incurred</b>	<b>0</b>	<b>1,066</b>	<b>0</b>	<b>1,066</b>	<b>0.00</b>	<b>0</b>	<b>1,075</b>	<b>0</b>	<b>1,075</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	41.60%	41.60%				38.08%	38.08%			
SEU	44.90%	44.90%				58.32%	58.32%			
CORP	7.56%	7.56%				3.60%	3.60%			
Unreg	5.94%	5.94%				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.	0	1,161	0	1,161	0.00	0	1,254	0	1,254	0.00
<b>Total Incurred</b>	<b>0</b>	<b>1,161</b>	<b>0</b>	<b>1,161</b>	<b>0.00</b>	<b>0</b>	<b>1,254</b>	<b>0</b>	<b>1,254</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3501.000 - IT NETWORK HARDWARE SOFTWARE MAINTENANCE

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
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 Cost Center: 2100-3501.000 - IT NETWORK HARDWARE SOFTWARE MAINTENANCE

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	1,066	1,066	1,066	9	95	188	1,075	1,161	1,254
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>1,066</b>	<b>1,066</b>	<b>1,066</b>	<b>9</b>	<b>95</b>	<b>188</b>	<b>1,075</b>	<b>1,161</b>	<b>1,254</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	0	9	0	9	0.0	1-Sided Adj

2014 adjustment to current contractual obligations. 2015 & 2016 escalation based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

<b>2014 Total</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>9</b>	<b>0.0</b>	
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2015	0	95	0	95	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

<b>2015 Total</b>	<b>0</b>	<b>95</b>	<b>0</b>	<b>95</b>	<b>0.0</b>	
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2016	0	188	0	188	0.0	1-Sided Adj
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
 2016 GRC - REVISED  
 Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3501.000 - IT NETWORK HARDWARE SOFTWARE MAINTENANCE

<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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2014 adjustment to current contractual obligations. 2015 & 2016 escalation based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

<b>2016 Total</b>	<b>0</b>	<b>188</b>	<b>0</b>	<b>188</b>	<b>0.0</b>	
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3501.000 - IT NETWORK HARDWARE SOFTWARE MAINTENANCE

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	0
Non-Labor	3,156	2,271	2,745	1,111	1,066
NSE	0	0	0	0	0
<b>Total</b>	<b>3,156</b>	<b>2,271</b>	<b>2,745</b>	<b>1,111</b>	<b>1,066</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	48	50	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>48</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	3,204	2,321	2,745	1,111	1,066
NSE	0	0	0	0	0
<b>Total</b>	<b>3,204</b>	<b>2,321</b>	<b>2,745</b>	<b>1,111</b>	<b>1,066</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	304	164	107	19	0
NSE	0	0	0	0	0
<b>Total</b>	<b>304</b>	<b>164</b>	<b>107</b>	<b>19</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	0
Non-Labor	3,507	2,485	2,852	1,130	1,066
NSE	0	0	0	0	0
<b>Total</b>	<b>3,507</b>	<b>2,485</b>	<b>2,852</b>	<b>1,130</b>	<b>1,066</b>
FTE	0.0	0.0	0.0	0.0	0.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3501.000 - IT NETWORK HARDWARE SOFTWARE MAINTENANCE

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	0	0	0
Non-Labor	48	50	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>48</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
2009	0	48	0	0.0	CCTR Transf	From 2100-0042.000	CSCHRAMM2013 1107090718830

Transfer costs associated with Itron maintenance for MV-90 system, from cost center 2100-0042 in work group 100000 Advanced Meter Operations to USS cost center 2100-3501.000 IT Network Hardware Software Maintenance to align costs where activity resides.

<b>2009 Total</b>	<b>0</b>	<b>48</b>	<b>0</b>	<b>0.0</b>			
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2010	0	50	0	0.0	CCTR Transf	From 2100-0042.000	CSCHRAMM2013 1107090811827
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Transfer costs associated with Itron maintenance for MV-90 system, from cost center 2100-0042 in work group 100000 Advanced Meter Operations to USS cost center 2100-3501.000 IT Network Hardware Software Maintenance to align costs where activity resides.

<b>2010 Total</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>0.0</b>			
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<b>2011 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
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<b>2012 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
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<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
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*Note: Totals may include rounding differences.*



**Beginning of Workpaper**  
**2100-3502.000 - ENTERPRISE COMMAND CENTER**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3502.000 - ENTERPRISE COMMAND CENTER

**Activity Description:**

The Enterprise command center organization provides 7/24 operation system-wide services to ensure network/telecom availability for all related business applications and services that are dependent upon voice, data, microwave, etc., category of communication services.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		1,720	1,599	1,997	1,891	1,842	1,842	1,842	1,842	
Non-Labor		160	135	26	230	66	66	66	66	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1,880</b>	<b>1,734</b>	<b>2,023</b>	<b>2,120</b>	<b>1,909</b>	<b>1,909</b>	<b>1,909</b>	<b>1,909</b>	
FTE		20.4	19.6	24.7	22.9	22.5	22.5	22.5	22.5	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3502.000 - ENTERPRISE COMMAND CENTER

**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	4	0	0	4	0.05	4	0	0	4	0.05
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	1,839	66	0	1,905	22.44	1,839	66	0	1,905	22.44
<b>Total Incurred</b>	<b>1,843</b>	<b>66</b>	<b>0</b>	<b>1,909</b>	<b>22.49</b>	<b>1,843</b>	<b>66</b>	<b>0</b>	<b>1,909</b>	<b>22.49</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				38.08%	38.08%			
SEU	54.70%	54.70%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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	4	0	0	4	0.05	4	0	0	4	0.05
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	1,839	66	0	1,905	22.44	1,839	66	0	1,905	22.44
<b>Total Incurred</b>	<b>1,843</b>	<b>66</b>	<b>0</b>	<b>1,909</b>	<b>22.49</b>	<b>1,843</b>	<b>66</b>	<b>0</b>	<b>1,909</b>	<b>22.49</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3502.000 - ENTERPRISE COMMAND CENTER

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

**Cost Center Allocation Percentage for 2013**

The IT & Client Services cost centers provides infrastructure computing services for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. The LAN ID use across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

**Cost Center Allocation Percentage for 2014**

The IT & Client Services cost centers provides infrastructure computing services for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. The LAN ID use across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

**Cost Center Allocation Percentage for 2015**

The IT & Client Services cost centers provides infrastructure computing services for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. The LAN ID use across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

**Cost Center Allocation Percentage for 2016**

The IT & Client Services cost centers provides infrastructure computing services for computer users at SDGE, SCG, and Parent. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. The LAN ID use across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3502.000 - ENTERPRISE COMMAND CENTER

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	1,842	1,842	1,842	0	0	0	1,842	1,842	1,842
Non-Labor	Base YR Rec	66	66	66	0	0	0	66	66	66
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>1,909</b>	<b>1,909</b>	<b>1,909</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,909</b>	<b>1,909</b>	<b>1,909</b>
FTE	Base YR Rec	22.5	22.5	22.5	0.0	0.0	0.0	22.5	22.5	22.5

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3502.000 - ENTERPRISE COMMAND CENTER

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	1,457	1,384	1,772	1,720	1,590
Non-Labor	149	129	28	229	66
NSE	0	0	0	0	0
<b>Total</b>	<b>1,606</b>	<b>1,514</b>	<b>1,800</b>	<b>1,948</b>	<b>1,656</b>
FTE	18.5	17.7	22.2	20.7	19.1
<b>Adjustments (Nominal \$) **</b>					
Labor	-96	-96	-96	-96	0
Non-Labor	-3	-3	-3	-3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-99</b>	<b>-99</b>	<b>-99</b>	<b>-99</b>	<b>0</b>
FTE	-1.0	-1.0	-1.0	-1.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	1,361	1,288	1,675	1,623	1,590
Non-Labor	146	126	25	226	66
NSE	0	0	0	0	0
<b>Total</b>	<b>1,507</b>	<b>1,414</b>	<b>1,701</b>	<b>1,849</b>	<b>1,656</b>
FTE	17.5	16.7	21.2	19.7	19.1
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	210	205	247	235	252
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>210</b>	<b>205</b>	<b>247</b>	<b>235</b>	<b>252</b>
FTE	2.9	2.9	3.5	3.2	3.4
<b>Escalation to 2013\$</b>					
Labor	149	106	75	32	0
Non-Labor	14	9	1	4	0
NSE	0	0	0	0	0
<b>Total</b>	<b>163</b>	<b>115</b>	<b>76</b>	<b>36</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	1,720	1,599	1,997	1,891	1,842
Non-Labor	160	135	26	230	66
NSE	0	0	0	0	0
<b>Total</b>	<b>1,880</b>	<b>1,734</b>	<b>2,023</b>	<b>2,120</b>	<b>1,909</b>
FTE	20.4	19.6	24.7	22.9	22.5

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3502.000 - ENTERPRISE COMMAND CENTER

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-96	-96	-96	-96	0
Non-Labor	-3	-3	-3	-3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-99</b>	<b>-99</b>	<b>-99</b>	<b>-99</b>	<b>0</b>
FTE	-1.0	-1.0	-1.0	-1.0	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	-96	-3	0	-1.0	CCTR Transf	To 2200-2456.000	FFIGUERO20131 031141825697
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-96</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			
2010	-96	-3	0	-1.0	CCTR Transf	To 2200-2456.000	FFIGUERO20131 031141901040
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-96</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			
2011	-96	-3	0	-1.0	CCTR Transf	To 2200-2456.000	FFIGUERO20131 031141945323
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-96</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			
2012	-96	-3	0	-1.0	CCTR Transf	To 2200-2456.000	FFIGUERO20131 031142021560
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-96</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3502.000 - ENTERPRISE COMMAND CENTER

<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>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*



**Beginning of Workpaper**  
**2100-3544.000 - WINTEL SERVER GROUP**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3544.000 - WINTEL SERVER GROUP

**Activity Description:**

This Operations server support group is responsible for providing 7/24 coverage and maintainability for distributive Wintel class servers.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		789	879	688	697	34	34	34	34	
Non-Labor		101	91	46	7	4	4	4	4	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>890</b>	<b>970</b>	<b>735</b>	<b>705</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	
FTE		10.5	11.5	9.3	8.8	0.4	0.4	0.4	0.4	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3544.000 - WINTEL SERVER GROUP

**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	0	0	1	0.01	1	0	0	1	0.01
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	33	4	0	37	0.41	33	4	0	37	0.41
<b>Total Incurred</b>	<b>34</b>	<b>4</b>	<b>0</b>	<b>38</b>	<b>0.42</b>	<b>34</b>	<b>4</b>	<b>0</b>	<b>38</b>	<b>0.42</b>
<b>% Allocation</b>										
Retained	41.60%	41.60%				41.64%	41.64%			
SEU	44.90%	44.90%				54.70%	54.70%			
CORP	7.56%	7.56%				3.66%	3.66%			
Unreg	5.94%	5.94%				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	0	0	1	0.01	1	0	0	1	0.01
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	33	4	0	37	0.41	33	4	0	37	0.41
<b>Total Incurred</b>	<b>34</b>	<b>4</b>	<b>0</b>	<b>38</b>	<b>0.42</b>	<b>34</b>	<b>4</b>	<b>0</b>	<b>38</b>	<b>0.42</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3544.000 - WINTEL SERVER GROUP

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3544.000 - WINTEL SERVER GROUP

**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	34	34	34	0	0	0	34	34	34
Non-Labor	Base YR Rec	4	4	4	0	0	0	4	4	4
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>38</b>	<b>38</b>	<b>38</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>38</b>	<b>38</b>
FTE	Base YR Rec	0.4	0.4	0.4	0.0	0.0	0.0	0.4	0.4	0.4

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3544.000 - WINTEL SERVER GROUP

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	1,095	1,179	1,048	1,070	29
Non-Labor	116	109	69	31	4
NSE	0	0	0	0	0
<b>Total</b>	<b>1,211</b>	<b>1,288</b>	<b>1,117</b>	<b>1,101</b>	<b>33</b>
FTE	15.0	15.8	14.0	13.6	0.4
<b>Adjustments (Nominal \$) **</b>					
Labor	-471	-471	-471	-471	0
Non-Labor	-24	-24	-24	-24	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-495</b>	<b>-495</b>	<b>-495</b>	<b>-495</b>	<b>0</b>
FTE	-6.0	-6.0	-6.0	-6.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	624	708	577	599	29
Non-Labor	92	85	45	7	4
NSE	0	0	0	0	0
<b>Total</b>	<b>716</b>	<b>793</b>	<b>622</b>	<b>606</b>	<b>33</b>
FTE	9.0	9.8	8.0	7.6	0.4
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	96	113	85	87	5
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>96</b>	<b>113</b>	<b>85</b>	<b>87</b>	<b>5</b>
FTE	1.5	1.7	1.3	1.2	0.1
<b>Escalation to 2013\$</b>					
Labor	68	58	26	12	0
Non-Labor	9	6	2	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>77</b>	<b>64</b>	<b>28</b>	<b>12</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	789	879	688	697	34
Non-Labor	101	91	46	7	4
NSE	0	0	0	0	0
<b>Total</b>	<b>890</b>	<b>970</b>	<b>735</b>	<b>705</b>	<b>38</b>
FTE	10.5	11.5	9.3	8.8	0.5

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3544.000 - WINTEL SERVER GROUP

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-471	-471	-471	-471	0
Non-Labor	-24	-24	-24	-24	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-495</b>	<b>-495</b>	<b>-495</b>	<b>-495</b>	<b>0</b>
FTE	-6.0	-6.0	-6.0	-6.0	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	-130	-6	0	-2.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031142137857
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-341	-18	0	-4.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031142444913
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-471</b>	<b>-24</b>	<b>0</b>	<b>-6.0</b>			
2010	-130	-6	0	-2.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031142204917
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-341	-18	0	-4.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031142517240
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-471</b>	<b>-24</b>	<b>0</b>	<b>-6.0</b>			
2011	-130	-6	0	-2.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031142258927
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-341	-18	0	-4.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031142547520
IT Employee Transfer from SDGE to SCG as of 2013							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

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 Cost Center: 2100-3544.000 - WINTEL SERVER GROUP

<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>-471</b>	<b>-24</b>	<b>0</b>	<b>-6.0</b>			
2012	-130	-6	0	-2.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031142328063
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-341	-18	0	-4.0	CCTR Transf	To 2200-2466.000	FFIGUERO20131 031142611167
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-471</b>	<b>-24</b>	<b>0</b>	<b>-6.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*



**Beginning of Workpaper**  
**2100-3548.000 - ENT SVC MGT & HELP DESK**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3548.000 - ENT SVC MGT & HELP DESK

**Activity Description:**

This Cost Center performs capital project management and business case analysis activities for the IT & Client Services Department in support of system-wide initiatives..

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		492	515	577	591	161	161	161	161	
Non-Labor		42	17	32	135	75	75	75	75	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>534</b>	<b>532</b>	<b>609</b>	<b>727</b>	<b>236</b>	<b>236</b>	<b>236</b>	<b>236</b>	
FTE		5.7	5.9	6.5	6.7	1.7	1.7	1.7	1.7	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3548.000 - ENT SVC MGT & HELP DESK

**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	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.	161	75	0	236	1.71	161	75	0	236	1.71
<b>Total Incurred</b>	<b>161</b>	<b>75</b>	<b>0</b>	<b>236</b>	<b>1.71</b>	<b>161</b>	<b>75</b>	<b>0</b>	<b>236</b>	<b>1.71</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				38.08%	38.08%			
SEU	54.70%	54.70%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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.	161	75	0	236	1.71	161	75	0	236	1.71
<b>Total Incurred</b>	<b>161</b>	<b>75</b>	<b>0</b>	<b>236</b>	<b>1.71</b>	<b>161</b>	<b>75</b>	<b>0</b>	<b>236</b>	<b>1.71</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
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Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3548.000 - ENT SVC MGT & HELP DESK

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3548.000 - ENT SVC MGT & HELP DESK

**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	161	161	161	0	0	0	161	161	161
Non-Labor	Base YR Rec	75	75	75	0	0	0	75	75	75
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>236</b>	<b>236</b>	<b>236</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>236</b>	<b>236</b>	<b>236</b>
FTE	Base YR Rec	1.7	1.7	1.7	0.0	0.0	0.0	1.7	1.7	1.7

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3548.000 - ENT SVC MGT & HELP DESK

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	615	641	710	733	139
Non-Labor	47	25	40	142	75
NSE	0	0	0	0	0
<b>Total</b>	<b>662</b>	<b>665</b>	<b>750</b>	<b>876</b>	<b>214</b>
FTE	6.9	7.0	7.6	7.7	1.5
<b>Adjustments (Nominal \$) **</b>					
Labor	-226	-226	-226	-226	0
Non-Labor	-9	-9	-9	-9	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-235</b>	<b>-235</b>	<b>-235</b>	<b>-235</b>	<b>0</b>
FTE	-2.0	-2.0	-2.0	-2.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	389	415	484	508	139
Non-Labor	38	16	31	133	75
NSE	0	0	0	0	0
<b>Total</b>	<b>428</b>	<b>431</b>	<b>515</b>	<b>641</b>	<b>214</b>
FTE	4.9	5.0	5.6	5.7	1.5
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	60	66	71	74	22
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>60</b>	<b>66</b>	<b>71</b>	<b>74</b>	<b>22</b>
FTE	0.8	0.9	0.9	0.9	0.3
<b>Escalation to 2013\$</b>					
Labor	43	34	22	10	0
Non-Labor	4	1	1	2	0
NSE	0	0	0	0	0
<b>Total</b>	<b>46</b>	<b>35</b>	<b>23</b>	<b>12</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	492	515	577	591	161
Non-Labor	42	17	32	135	75
NSE	0	0	0	0	0
<b>Total</b>	<b>534</b>	<b>532</b>	<b>609</b>	<b>727</b>	<b>236</b>
FTE	5.7	5.9	6.5	6.6	1.8

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

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

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3548.000 - ENT SVC MGT & HELP DESK

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-226	-226	-226	-226	0
Non-Labor	-9	-9	-9	-9	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-235</b>	<b>-235</b>	<b>-235</b>	<b>-235</b>	<b>0</b>
FTE	-2.0	-2.0	-2.0	-2.0	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	-226	-9	0	-2.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031142727327
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-226</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
2010	-226	-9	0	-2.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031142810107
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-226</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
2011	-226	-9	0	-2.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031142851530
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-226</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
2012	-226	-9	0	-2.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031142920657
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-226</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			

Note: Totals may include rounding differences.

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Cost Center: 2100-3548.000 - ENT SVC MGT & HELP DESK

<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 Total	0	0	0	0.0			

*Note: Totals may include rounding differences.*



**Beginning of Workpaper**  
**2100-3682.000 - PROJECT MANAGEMENT OFFICE-NCS**

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3682.000 - PROJECT MANAGEMENT OFFICE-NCS

**Activity Description:**

Responsible for IT Network Engineering services at both SDG&E and the Parent. Preventative maintenance activities on network infrastructure (i.e. hardware, software, facilities, services).

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		115	23	-3	-6	299	299	299	299	
Non-Labor		22	12	62	239	23	23	23	23	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>137</b>	<b>35</b>	<b>60</b>	<b>232</b>	<b>321</b>	<b>321</b>	<b>321</b>	<b>321</b>	
FTE		1.1	0.2	-0.3	-0.4	2.7	2.7	2.7	2.7	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3682.000 - PROJECT MANAGEMENT OFFICE-NCS

**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	33	1	0	34	0.31	33	1	0	34	0.31
Directly Allocated	12	4	0	16	0.13	12	4	0	16	0.13
Subj. To % Alloc.	253	18	0	271	2.22	253	18	0	271	2.22
<b>Total Incurred</b>	<b>298</b>	<b>23</b>	<b>0</b>	<b>321</b>	<b>2.66</b>	<b>298</b>	<b>23</b>	<b>0</b>	<b>321</b>	<b>2.66</b>
<b>% Allocation</b>										
Retained	91.91%	91.91%				91.37%	91.37%			
SEU	0.00%	0.00%				0.00%	0.00%			
CORP	8.09%	8.09%				8.63%	8.63%			
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	33	1	0	34	0.31	33	1	0	34	0.31
Directly Allocated	12	4	0	16	0.13	12	4	0	16	0.13
Subj. To % Alloc.	253	18	0	271	2.22	253	18	0	271	2.22
<b>Total Incurred</b>	<b>298</b>	<b>23</b>	<b>0</b>	<b>321</b>	<b>2.66</b>	<b>298</b>	<b>23</b>	<b>0</b>	<b>321</b>	<b>2.66</b>
<b>% Allocation</b>										
Retained	91.37%	91.37%				91.37%	91.37%			
SEU	0.00%	0.00%				0.00%	0.00%			
CORP	8.63%	8.63%				8.63%	8.63%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

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Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3682.000 - PROJECT MANAGEMENT OFFICE-NCS

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across SDGE and the Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across SDGE and the Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across SDGE and the Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across SDGE and the Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

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 Category: B. Infrastructure  
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 Cost Center: 2100-3682.000 - PROJECT MANAGEMENT OFFICE-NCS

**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	299	299	299	0	0	0	299	299	299
Non-Labor	Base YR Rec	23	23	23	0	0	0	23	23	23
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>321</b>	<b>321</b>	<b>321</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>321</b>	<b>321</b>	<b>321</b>
FTE	Base YR Rec	2.7	2.7	2.7	0.0	0.0	0.0	2.7	2.7	2.7

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

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Category-Sub: 1. Infrastructure  
Cost Center: 2100-3682.000 - PROJECT MANAGEMENT OFFICE-NCS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	196	123	103	99	258
Non-Labor	23	14	63	238	23
NSE	0	0	0	0	0
<b>Total</b>	<b>219</b>	<b>137</b>	<b>166</b>	<b>337</b>	<b>280</b>
FTE	1.9	1.2	0.7	0.6	2.3
<b>Adjustments (Nominal \$) **</b>					
Labor	-105	-105	-105	-105	0
Non-Labor	-3	-3	-3	-3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-108</b>	<b>-108</b>	<b>-108</b>	<b>-108</b>	<b>0</b>
FTE	-1.0	-1.0	-1.0	-1.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	91	18	-2	-6	258
Non-Labor	20	11	60	235	23
NSE	0	0	0	0	0
<b>Total</b>	<b>111</b>	<b>30</b>	<b>58</b>	<b>229</b>	<b>280</b>
FTE	0.9	0.2	-0.3	-0.4	2.3
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	14	3	0	-1	41
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>14</b>	<b>3</b>	<b>0</b>	<b>-1</b>	<b>41</b>
FTE	0.2	0.0	0.0	-0.1	0.4
<b>Escalation to 2013\$</b>					
Labor	10	1	0	0	0
Non-Labor	2	1	2	4	0
NSE	0	0	0	0	0
<b>Total</b>	<b>12</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	115	23	-3	-6	299
Non-Labor	22	12	62	239	23
NSE	0	0	0	0	0
<b>Total</b>	<b>137</b>	<b>35</b>	<b>60</b>	<b>232</b>	<b>321</b>
FTE	1.1	0.2	-0.3	-0.5	2.7

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

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

Note: Totals may include rounding differences.

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 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3682.000 - PROJECT MANAGEMENT OFFICE-NCS

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-105	-105	-105	-105	0
Non-Labor	-3	-3	-3	-3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-108</b>	<b>-108</b>	<b>-108</b>	<b>-108</b>	<b>0</b>
FTE	-1.0	-1.0	-1.0	-1.0	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	-105	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031143105737
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-105</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			
2010	-105	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031143159047
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-105</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			
2011	-105	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031143241693
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-105</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			
2012	-105	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031143321297
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-105</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3682.000 - PROJECT MANAGEMENT OFFICE-NCS

<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>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*



**Beginning of Workpaper**  
**2100-3683.000 - PROJECT IMPROVEMENT OFFICE-NCS**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3683.000 - PROJECT IMPROVEMENT OFFICE-NCS

**Activity Description:**

Preventive maintenance activities on network and telecom infrastructure (i.e. hardware, software, facilities, services). This cost center is responsible for the design and implementation of CI projects for Local Area and Wide Area networks and voice systems that link all company facilities.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
	Labor	281	177	130	815	956	956	956	956	
	Non-Labor	22	39	49	125	138	138	138	138	
	NSE	0	0	0	0	0	0	0	0	
	<b>Total</b>	<b>303</b>	<b>216</b>	<b>180</b>	<b>940</b>	<b>1,094</b>	<b>1,094</b>	<b>1,094</b>	<b>1,094</b>	
	FTE	3.3	1.8	1.3	8.3	10.0	10.0	10.0	10.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3683.000 - PROJECT IMPROVEMENT OFFICE-NCS

**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	0	0	2	0.03	2	0	0	2	0.03
Directly Allocated	59	0	0	59	0.52	59	0	0	59	0.52
Subj. To % Alloc.	895	138	0	1,033	9.50	895	138	0	1,033	9.50
<b>Total Incurred</b>	<b>956</b>	<b>138</b>	<b>0</b>	<b>1,094</b>	<b>10.05</b>	<b>956</b>	<b>138</b>	<b>0</b>	<b>1,094</b>	<b>10.05</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				38.08%	38.08%			
SEU	54.70%	54.70%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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	0	0	2	0.03	2	0	0	2	0.03
Directly Allocated	59	0	0	59	0.52	59	0	0	59	0.52
Subj. To % Alloc.	895	138	0	1,033	9.50	895	138	0	1,033	9.50
<b>Total Incurred</b>	<b>956</b>	<b>138</b>	<b>0</b>	<b>1,094</b>	<b>10.05</b>	<b>956</b>	<b>138</b>	<b>0</b>	<b>1,094</b>	<b>10.05</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3683.000 - PROJECT IMPROVEMENT OFFICE-NCS

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3683.000 - PROJECT IMPROVEMENT OFFICE-NCS

**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	956	956	956	0	0	0	956	956	956
Non-Labor	Base YR Rec	138	138	138	0	0	0	138	138	138
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>1,094</b>	<b>1,094</b>	<b>1,094</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,094</b>	<b>1,094</b>	<b>1,094</b>
FTE	Base YR Rec	10.0	10.0	10.0	0.0	0.0	0.0	10.0	10.0	10.0

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3683.000 - PROJECT IMPROVEMENT OFFICE-NCS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	223	142	109	699	825
Non-Labor	20	36	47	123	138
NSE	0	0	0	0	0
<b>Total</b>	<b>242</b>	<b>179</b>	<b>157</b>	<b>822</b>	<b>963</b>
FTE	2.8	1.5	1.1	7.1	8.5
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	223	142	109	699	825
Non-Labor	20	36	47	123	138
NSE	0	0	0	0	0
<b>Total</b>	<b>242</b>	<b>179</b>	<b>157</b>	<b>822</b>	<b>963</b>
FTE	2.8	1.5	1.1	7.1	8.5
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	34	23	16	101	131
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>34</b>	<b>23</b>	<b>16</b>	<b>101</b>	<b>131</b>
FTE	0.5	0.3	0.2	1.2	1.5
<b>Escalation to 2013\$</b>					
Labor	24	12	5	14	0
Non-Labor	2	3	2	2	0
NSE	0	0	0	0	0
<b>Total</b>	<b>26</b>	<b>14</b>	<b>7</b>	<b>16</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	281	177	130	815	956
Non-Labor	22	39	49	125	138
NSE	0	0	0	0	0
<b>Total</b>	<b>303</b>	<b>216</b>	<b>180</b>	<b>940</b>	<b>1,094</b>
FTE	3.3	1.8	1.3	8.3	10.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3683.000 - PROJECT IMPROVEMENT OFFICE-NCS

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3684.000 - SERVICE DELIVERY - NCS**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3684.000 - SERVICE DELIVERY - NCS

**Activity Description:**

Messaging and network activities for support and maintenance of messaging infrastructure, including E-mail, Calendaring, Instant Messaging, and SharePoint services on a system-wide basis across Corporate Center, SDG&E, and So Cal Gas.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		933	1,156	1,159	1,127	355	355	355	355	
Non-Labor		315	314	122	290	67	67	67	67	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1,248</b>	<b>1,470</b>	<b>1,281</b>	<b>1,416</b>	<b>422</b>	<b>422</b>	<b>422</b>	<b>422</b>	
FTE		10.1	12.1	13.3	13.1	3.9	3.9	3.9	3.9	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3684.000 - SERVICE DELIVERY - NCS

**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	5	0	0	5	0.00	5	0	0	5	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	350	67	0	417	3.89	350	67	0	417	3.89
<b>Total Incurred</b>	<b>355</b>	<b>67</b>	<b>0</b>	<b>422</b>	<b>3.89</b>	<b>355</b>	<b>67</b>	<b>0</b>	<b>422</b>	<b>3.89</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				42.64%	42.64%			
SEU	54.70%	54.70%				49.02%	49.02%			
CORP	3.66%	3.66%				8.34%	8.34%			
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	5	0	0	5	0.00	5	0	0	5	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	350	67	0	417	3.89	350	67	0	417	3.89
<b>Total Incurred</b>	<b>355</b>	<b>67</b>	<b>0</b>	<b>422</b>	<b>3.89</b>	<b>355</b>	<b>67</b>	<b>0</b>	<b>422</b>	<b>3.89</b>
<b>% Allocation</b>										
Retained	42.64%	42.64%				42.64%	42.64%			
SEU	49.02%	49.02%				49.02%	49.02%			
CORP	8.34%	8.34%				8.34%	8.34%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3684.000 - SERVICE DELIVERY - NCS

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

**Cost Center Allocation Percentage for 2013**

The Messaging Mobile Services cost center provides Network Service Delivery activities for computer users at SDGE, SCG and Parent. Computer users are provided a LAN ID in order to access and use computing services. Therefore, LAN ID is the most representative determination for the allocation of Network Service Delivery costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to employees and contractors. SharePoint services are rolled out by licenses users and are also determined by the number of websites serviced.

**Cost Center Allocation Percentage for 2014**

The Messaging Mobile Services cost center provides Network Service Delivery activities for computer users at SDGE, SCG and Parent. Computer users are provided a LAN ID in order to access and use computing services. Therefore, LAN ID is the most representative determination for the allocation of Network Service Delivery costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to employees and contractors. SharePoint services are rolled out by licenses users and are also determined by the number of websites serviced.

**Cost Center Allocation Percentage for 2015**

The Messaging Mobile Services cost center provides Network Service Delivery activities for computer users at SDGE, SCG and Parent. Computer users are provided a LAN ID in order to access and use computing services. Therefore, LAN ID is the most representative determination for the allocation of Network Service Delivery costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to employees and contractors. SharePoint services are rolled out by licenses users and are also determined by the number of websites serviced.

**Cost Center Allocation Percentage for 2016**

The Messaging Mobile Services cost center provides Network Service Delivery activities for computer users at SDGE, SCG and Parent. Computer users are provided a LAN ID in order to access and use computing services. Therefore, LAN ID is the most representative determination for the allocation of Network Service Delivery costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to employees and contractors. SharePoint services are rolled out by licenses users and are also determined by the number of websites serviced.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3684.000 - SERVICE DELIVERY - NCS

**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	355	355	355	0	0	0	355	355	355
Non-Labor	Base YR Rec	67	67	67	0	0	0	67	67	67
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>422</b>	<b>422</b>	<b>422</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>422</b>	<b>422</b>	<b>422</b>
FTE	Base YR Rec	3.9	3.9	3.9	0.0	0.0	0.0	3.9	3.9	3.9

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3684.000 - SERVICE DELIVERY - NCS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	1,010	1,203	1,244	1,239	307
Non-Labor	299	305	130	297	67
NSE	0	0	0	0	0
<b>Total</b>	<b>1,309</b>	<b>1,508</b>	<b>1,373</b>	<b>1,535</b>	<b>374</b>
FTE	11.7	13.3	14.4	14.3	3.3
<b>Adjustments (Nominal \$) **</b>					
Labor	-272	-272	-272	-272	0
Non-Labor	-12	-12	-12	-12	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-284</b>	<b>-284</b>	<b>-284</b>	<b>-284</b>	<b>0</b>
FTE	-3.0	-3.0	-3.0	-3.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	738	932	972	967	307
Non-Labor	287	293	118	285	67
NSE	0	0	0	0	0
<b>Total</b>	<b>1,026</b>	<b>1,225</b>	<b>1,090</b>	<b>1,252</b>	<b>374</b>
FTE	8.7	10.3	11.4	11.3	3.3
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	114	148	143	140	49
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>114</b>	<b>148</b>	<b>143</b>	<b>140</b>	<b>49</b>
FTE	1.5	1.8	1.9	1.8	0.6
<b>Escalation to 2013\$</b>					
Labor	81	76	43	19	0
Non-Labor	27	21	5	5	0
NSE	0	0	0	0	0
<b>Total</b>	<b>108</b>	<b>97</b>	<b>48</b>	<b>24</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	933	1,156	1,159	1,127	355
Non-Labor	315	314	122	290	67
NSE	0	0	0	0	0
<b>Total</b>	<b>1,248</b>	<b>1,470</b>	<b>1,281</b>	<b>1,416</b>	<b>422</b>
FTE	10.2	12.1	13.3	13.1	3.9

\* 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.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3684.000 - SERVICE DELIVERY - NCS

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-272	-272	-272	-272	0
Non-Labor	-12	-12	-12	-12	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-284</b>	<b>-284</b>	<b>-284</b>	<b>-284</b>	<b>0</b>
FTE	-3.0	-3.0	-3.0	-3.0	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	-66	-3	0	-1.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031144047087
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-64	-3	0	-1.0	CCTR Transf	To 2200-2458.000	FFIGUERO20131 031144408893
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-92	-3	0	-1.0	CCTR Transf	To 2200-2460.000	FFIGUERO20131 031144654407
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-50	-3	0	0.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031144918833
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-272</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
2010	-66	-3	0	-1.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031144117480
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-64	-3	0	-1.0	CCTR Transf	To 2200-2458.000	FFIGUERO20131 031144439237
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-92	-3	0	-1.0	CCTR Transf	To 2200-2460.000	FFIGUERO20131 031144724570
IT Employee Transfer from SDGE to SCG as of 2013							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3684.000 - SERVICE DELIVERY - NCS

<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	-50	-3	0	0.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031145004490
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-272</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
2011	-66	-3	0	-1.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031144157123
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-64	-3	0	-1.0	CCTR Transf	To 2200-2458.000	FFIGUERO20131 031144523160
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-92	-3	0	-1.0	CCTR Transf	To 2200-2460.000	FFIGUERO20131 031144800343
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-50	-3	0	0.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031145039010
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-272</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
2012	-66	-3	0	-1.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031144255113
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-64	-3	0	-1.0	CCTR Transf	To 2200-2458.000	FFIGUERO20131 031144554233
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-92	-3	0	-1.0	CCTR Transf	To 2200-2460.000	FFIGUERO20131 031144831660
IT Employee Transfer from SDGE to SCG as of 2013							
2012	-50	-3	0	0.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031145105477
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-272</b>	<b>-12</b>	<b>0</b>	<b>-3.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

**Beginning of Workpaper**  
**2100-3698.000 - SERVICE DEVELOPMENT PROGRAM MANAGEMENT**



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3698.000 - SERVICE DEVELOPMENT PROGRAM MANAGEMENT

**Activity Description:**

This cost center supports all of IT&CS, including the group's support of other affiliates.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		313	691	795	966	-10	-10	209	428	
Non-Labor		55	65	57	40	2	2	22	42	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>368</b>	<b>756</b>	<b>852</b>	<b>1,006</b>	<b>-9</b>	<b>-9</b>	<b>230</b>	<b>469</b>	
FTE		2.8	6.4	8.1	9.3	-0.1	-0.1	2.1	4.2	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3698.000 - SERVICE DEVELOPMENT PROGRAM MANAGEMENT

**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	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.	-10	2	0	-8	-0.10	-10	2	0	-8	-0.10
<b>Total Incurred</b>	<b>-10</b>	<b>2</b>	<b>0</b>	<b>-8</b>	<b>-0.10</b>	<b>-10</b>	<b>2</b>	<b>0</b>	<b>-8</b>	<b>-0.10</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				40.93%	40.93%			
SEU	54.70%	54.70%				53.23%	53.23%			
CORP	3.66%	3.66%				3.81%	3.81%			
Unreg	0.00%	0.00%				2.03%	2.03%			

	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.	209	22	0	231	2.10	428	42	0	470	4.20
<b>Total Incurred</b>	<b>209</b>	<b>22</b>	<b>0</b>	<b>231</b>	<b>2.10</b>	<b>428</b>	<b>42</b>	<b>0</b>	<b>470</b>	<b>4.20</b>
<b>% Allocation</b>										
Retained	40.93%	40.93%				40.93%	40.93%			
SEU	53.23%	53.23%				53.23%	53.23%			
CORP	3.81%	3.81%				3.81%	3.81%			
Unreg	2.03%	2.03%				2.03%	2.03%			

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

**Cost Center Allocation Percentage for 2013**

The weighted average was taken of all cost centers under the IT & Client Services Department. This method reflects the level of support.

**Cost Center Allocation Percentage for 2014**

The weighted average was taken of all cost centers under the IT & Client Services Department. This method reflects the level of support.

**Cost Center Allocation Percentage for 2015**

The weighted average was taken of all cost centers under the IT & Client Services Department. This method reflects the level of support.

**Cost Center Allocation Percentage for 2016**

The weighted average was taken of all cost centers under the IT & Client Services Department. This method reflects the level of support.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3698.000 - SERVICE DEVELOPMENT PROGRAM MANAGEMENT

**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	-10	-10	-10	0	219	438	-10	209	428
Non-Labor	Base YR Rec	2	2	2	0	20	40	2	22	42
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>-9</b>	<b>-9</b>	<b>-9</b>	<b>0</b>	<b>239</b>	<b>478</b>	<b>-9</b>	<b>230</b>	<b>469</b>
FTE	Base YR Rec	-0.1	-0.1	-0.1	0.0	2.2	4.3	-0.1	2.1	4.2

**Forecast Adjustment Details:**

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

2015                      123                      10                      0                      133                      1.2      1-Sided Adj

1.5 new employees to support new IT initiatives across the company in 2015 and in 2016.  
 \$100k average salary plus \$10k per employee in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

2015                      96                      10                      0                      106                      1.0      1-Sided Adj

1.9 FTE at \$100k per employee plus \$10k per employee in associated NL costs, split across 2015 and 2016.

<b>2015 Total</b>	<b>219</b>	<b>20</b>	<b>0</b>	<b>239</b>	<b>2.2</b>	
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2016                      123                      10                      0                      133                      1.2      1-Sided Adj

1.5 new employees to support new IT initiatives across the company in 2015 and in 2016.  
 \$100k average salary plus \$10k per employee in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
 2016 GRC - REVISED  
 Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3698.000 - SERVICE DEVELOPMENT PROGRAM MANAGEMENT

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2016	192	20	0	212	1.9	1-Sided Adj

1.9 FTE at \$100k per employee plus \$10k per employee in associated NL costs, split across 2015 and 2016.

2016	123	10	0	133	1.2	1-Sided Adj
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1.5 new employees to support new IT initiatives across the company in 2015 and in 2016. \$100k average salary plus \$10k per employee in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

<b>2016 Total</b>	<b>438</b>	<b>40</b>	<b>0</b>	<b>478</b>	<b>4.3</b>	
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3698.000 - SERVICE DEVELOPMENT PROGRAM MANAGEMENT

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	247	567	667	829	-9
Non-Labor	51	61	55	39	2
NSE	0	0	0	0	0
<b>Total</b>	<b>298</b>	<b>628</b>	<b>722</b>	<b>869</b>	<b>-7</b>
FTE	2.4	5.5	6.9	8.0	-0.1
<b>Adjustments (Nominal \$) **</b>					
Labor	0	-11	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>-11</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	-0.1	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	247	556	667	829	-9
Non-Labor	51	61	55	39	2
NSE	0	0	0	0	0
<b>Total</b>	<b>298</b>	<b>617</b>	<b>722</b>	<b>869</b>	<b>-7</b>
FTE	2.4	5.4	6.9	8.0	-0.1
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	38	89	98	120	-1
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>38</b>	<b>89</b>	<b>98</b>	<b>120</b>	<b>-1</b>
FTE	0.4	0.9	1.1	1.3	0.0
<b>Escalation to 2013\$</b>					
Labor	27	46	30	16	0
Non-Labor	5	4	2	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>32</b>	<b>50</b>	<b>32</b>	<b>17</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	313	691	795	966	-10
Non-Labor	55	65	57	40	2
NSE	0	0	0	0	0
<b>Total</b>	<b>368</b>	<b>756</b>	<b>852</b>	<b>1,006</b>	<b>-9</b>
FTE	2.8	6.3	8.0	9.3	-0.1

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3698.000 - SERVICE DEVELOPMENT PROGRAM MANAGEMENT

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	-11	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>-11</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	-0.1	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	-11	0	0	-0.1	1-Sided Adj	N/A	TP1JMY20150526 135527460
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2010 Total</b>	<b>-11</b>	<b>0</b>	<b>0</b>	<b>-0.1</b>			
<b>2011 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2012 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3824.000 - INFRAST PRGRM OFFICE**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3824.000 - INFRASTR PRGRM OFFICE

**Activity Description:**

This cost center contains all IT Compliance Management enterprise-wide.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	395	379	203	203	203	203	
Non-Labor		0	0	17	145	14	14	14	14	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>412</b>	<b>524</b>	<b>217</b>	<b>217</b>	<b>217</b>	<b>217</b>	
FTE		0.0	0.0	3.2	3.0	1.6	1.6	1.6	1.6	

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3824.000 - INFRASR PRGRM OFFICE

**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	16	0	0	16	0.09	16	0	0	16	0.09
Directly Allocated	-3	0	0	-3	-0.03	-3	0	0	-3	-0.03
Subj. To % Alloc.	190	14	0	204	1.53	190	14	0	204	1.54
<b>Total Incurred</b>	<b>203</b>	<b>14</b>	<b>0</b>	<b>217</b>	<b>1.59</b>	<b>203</b>	<b>14</b>	<b>0</b>	<b>217</b>	<b>1.60</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
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	16	0	0	16	0.09	16	0	0	16	0.09
Directly Allocated	-3	0	0	-3	-0.03	-3	0	0	-3	-0.03
Subj. To % Alloc.	190	14	0	204	1.54	190	14	0	204	1.54
<b>Total Incurred</b>	<b>203</b>	<b>14</b>	<b>0</b>	<b>217</b>	<b>1.60</b>	<b>203</b>	<b>14</b>	<b>0</b>	<b>217</b>	<b>1.60</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3824.000 - INFRAST PRGRM OFFICE

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3824.000 - INFRAST PRGRM OFFICE

**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	203	203	203	0	0	0	203	203	203
Non-Labor	Base YR Rec	14	14	14	0	0	0	14	14	14
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>217</b>	<b>217</b>	<b>217</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>217</b>	<b>217</b>	<b>217</b>
FTE	Base YR Rec	1.6	1.6	1.6	0.0	0.0	0.0	1.6	1.6	1.6

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3824.000 - INFRAST PRGRM OFFICE

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	331	325	175
Non-Labor	0	0	17	143	14
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>348</b>	<b>468</b>	<b>190</b>
FTE	0.0	0.0	2.8	2.6	1.3
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	331	325	175
Non-Labor	0	0	17	143	14
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>348</b>	<b>468</b>	<b>190</b>
FTE	0.0	0.0	2.8	2.6	1.3
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	49	47	28
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>49</b>	<b>47</b>	<b>28</b>
FTE	0.0	0.0	0.5	0.4	0.2
<b>Escalation to 2013\$</b>					
Labor	0	0	15	6	0
Non-Labor	0	0	1	2	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>9</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	395	379	203
Non-Labor	0	0	17	145	14
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>412</b>	<b>524</b>	<b>217</b>
FTE	0.0	0.0	3.3	3.0	1.5

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

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

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3824.000 - INFRAST PRGRM OFFICE

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3835.000 - SDGE NETWRK INTEGRA**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3835.000 - SDGE NETWRK INTEGRA

**Activity Description:**

This cost center is responsible for the installation and maintenance of telecom equipment including PBXs, microwave, data and mobile radio services across the SDG&E service territory, including Corporate Center (parent).

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	220	676	0	0	0	0	
Non-Labor		0	0	56	316	17	17	17	17	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>277</b>	<b>992</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	
FTE		0.0	0.0	2.3	7.7	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3835.000 - SDGE NETWRK INTEGRA

**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	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.	0	17	0	17	-0.01	0	17	0	17	-0.01
<b>Total Incurred</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>17</b>	<b>-0.01</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>17</b>	<b>-0.01</b>
<b>% Allocation</b>										
Retained	91.91%	91.91%				91.91%	91.91%			
SEU	0.00%	0.00%				0.00%	0.00%			
CORP	8.09%	8.09%				8.09%	8.09%			
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.	0	17	0	17	-0.01	0	17	0	17	-0.01
<b>Total Incurred</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>17</b>	<b>-0.01</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>17</b>	<b>-0.01</b>
<b>% Allocation</b>										
Retained	91.91%	91.91%				91.91%	91.91%			
SEU	0.00%	0.00%				0.00%	0.00%			
CORP	8.09%	8.09%				8.09%	8.09%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3835.000 - SDGE NETWRK INTEGRA

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3835.000 - SDGE NETWRK INTEGRA

**Forecast Summary:**

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

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3835.000 - SDGE NETWRK INTEGRA

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	185	580	0
Non-Labor	0	0	54	311	17
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>239</b>	<b>891</b>	<b>16</b>
FTE	0.0	0.0	2.0	6.7	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	185	580	0
Non-Labor	0	0	54	311	17
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>239</b>	<b>891</b>	<b>16</b>
FTE	0.0	0.0	2.0	6.7	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	27	84	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>27</b>	<b>84</b>	<b>0</b>
FTE	0.0	0.0	0.3	1.1	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	8	11	0
Non-Labor	0	0	2	5	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>17</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	220	676	0
Non-Labor	0	0	56	316	17
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>277</b>	<b>992</b>	<b>16</b>
FTE	0.0	0.0	2.3	7.8	0.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3835.000 - SDGE NETWRK INTEGRA

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3843.000 - SCG NETWORK INTEGRATION**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3843.000 - SCG NETWORK INTEGRATION

**Activity Description:**

This cost center supports SCG Network Integration costs originating at SDGE.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	486	1	1	1	1	
Non-Labor		0	0	0	28	0	0	0	0	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>514</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	
FTE		0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3843.000 - SCG NETWORK INTEGRATION

**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	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.	1	0	0	1	0.01	1	0	0	1	0.01
<b>Total Incurred</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0.01</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0.01</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
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.	1	0	0	1	0.01	1	0	0	1	0.01
<b>Total Incurred</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0.01</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0.01</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3843.000 - SCG NETWORK INTEGRATION

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3843.000 - SCG NETWORK INTEGRATION

**Forecast Summary:**

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

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3843.000 - SCG NETWORK INTEGRATION

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	417	1
Non-Labor	0	0	0	27	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>444</b>	<b>1</b>
FTE	0.0	0.0	0.0	4.9	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	417	1
Non-Labor	0	0	0	27	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>444</b>	<b>1</b>
FTE	0.0	0.0	0.0	4.9	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	60	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.8	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	8	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	486	1
Non-Labor	0	0	0	28	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>514</b>	<b>1</b>
FTE	0.0	0.0	0.0	5.7	0.0

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

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

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3843.000 - SCG NETWORK INTEGRATION

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3855.000 - CLINT SERVICES MAINTENANCE & SUPPORT**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3855.000 - CLINT SERVICES MAINTENANCE & SUPPORT

**Activity Description:**

This cost center performs contract management and administration and planning activities for the maintenance contracts associated with support for the Distributed Server Environment and Network systems, Scalable Platform Services, Client Technology & Depot Services, SempraHelp & IT Service Management. Also, performs management and administration of leased circuits contracts costs and Telephone invoices.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		0	0	0	4,258	5,471	4,514	4,875	5,265	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>4,258</b>	<b>5,471</b>	<b>4,514</b>	<b>4,875</b>	<b>5,265</b>	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3855.000 - CLINT SERVICES MAINTENANCE & SUPPORT

**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	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.	0	5,471	0	5,471	0.00	0	4,514	0	4,514	0.00
<b>Total Incurred</b>	<b>0</b>	<b>5,471</b>	<b>0</b>	<b>5,471</b>	<b>0.00</b>	<b>0</b>	<b>4,514</b>	<b>0</b>	<b>4,514</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	41.63%	41.63%				38.45%	38.45%			
SEU	53.01%	53.01%				53.95%	53.95%			
CORP	4.34%	4.34%				4.52%	4.52%			
Unreg	1.02%	1.02%				3.08%	3.08%			

	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.	0	4,875	0	4,875	0.00	0	5,265	0	5,265	0.00
<b>Total Incurred</b>	<b>0</b>	<b>4,875</b>	<b>0</b>	<b>4,875</b>	<b>0.00</b>	<b>0</b>	<b>5,265</b>	<b>0</b>	<b>5,265</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	38.45%	38.45%				38.45%	38.45%			
SEU	53.95%	53.95%				53.95%	53.95%			
CORP	4.52%	4.52%				4.52%	4.52%			
Unreg	3.08%	3.08%				3.08%	3.08%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3855.000 - CLINT SERVICES MAINTENANCE & SUPPORT

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

**Cost Center Allocation Percentage for 2013**

This cost center cost are for maintenance contract costs for hardware and software equipment that provides Distributed Server Environment and Network systems, Scalable Platform Services, Client Technology & Depot Services, SempraHelp & IT Service Management. System functions for computer users at SDGE, SCG and Parent, and voice support functions for Telecommunications device users at SDGE, SCG, Parent and certain Global Companies -Voice count. Computer users are provided a LAN ID in order to access and use computing services. Therefore, LAN ID is the most representative determination for the allocation of systems maintenance contract costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to employees and contractors. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. The Telephone devices and LAN ID use across companies are then measured on maintenance contract allocation basis accordingly to the basis of support they provide.

**Cost Center Allocation Percentage for 2014**

This cost center cost are for maintenance contract costs for hardware and software equipment that provides Distributed Server Environment and Network systems, Scalable Platform Services, Client Technology & Depot Services, SempraHelp & IT Service Management. System functions for computer users at SDGE, SCG and Parent, and voice support functions for Telecommunications device users at SDGE, SCG, Parent and certain Global Companies -Voice count. Computer users are provided a LAN ID in order to access and use computing services. Therefore, LAN ID is the most representative determination for the allocation of systems maintenance contract costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to employees and contractors. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. The Telephone devices and LAN ID use across companies are then measured on maintenance contract allocation basis accordingly to the basis of support they provide.

**Cost Center Allocation Percentage for 2015**

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3855.000 - CLINT SERVICES MAINTENANCE & SUPPORT

This cost center cost are for maintenance contract costs for hardware and software equipment that provides Distributed Server Environment and Network systems, Scalable Platform Services, Client Technology & Depot Services, SempraHelp & IT Service Management. System functions for computer users at SDGE, SCG and Parent, and voice support functions for Telecommunications device users at SDGE, SCG, Parent and certain Global Companies -Voice count. Computer users are provided a LAN ID in order to access and use computing services. Therefore, LAN ID is the most representative determination for the allocation of systems maintenance contract costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to employees and contractors. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. The Telephone devices and LAN ID use across companies are then measured on maintenance contract allocation basis accordingly to the basis of support they provide.

**Cost Center Allocation Percentage for 2016**

This cost center cost are for maintenance contract costs for hardware and software equipment that provides Distributed Server Environment and Network systems, Scalable Platform Services, Client Technology & Depot Services, SempraHelp & IT Service Management. System functions for computer users at SDGE, SCG and Parent, and voice support functions for Telecommunications device users at SDGE, SCG, Parent and certain Global Companies -Voice count. Computer users are provided a LAN ID in order to access and use computing services. Therefore, LAN ID is the most representative determination for the allocation of systems maintenance contract costs to SDGE, SCG, and Parent. In addition, LAN ID is assigned specifically to the users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to employees and contractors. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. The Telephone devices and LAN ID use across companies are then measured on maintenance contract allocation basis accordingly to the basis of support they provide.

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3855.000 - CLINT SERVICES MAINTENANCE & SUPPORT

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	5,471	5,471	5,471	-957	-596	-206	4,514	4,875	5,265
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>5,471</b>	<b>5,471</b>	<b>5,471</b>	<b>-957</b>	<b>-596</b>	<b>-206</b>	<b>4,514</b>	<b>4,875</b>	<b>5,265</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	0	-957	0	-957	0.0	1-Sided Adj

2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

Please see SDG&E-19-WP, cost center 2100-3855.000. This cost center includes distributed server and network contracts, which reflect a 1-time cost savings of \$.957 million in 2014. An 8% escalation rate was applied to 2015-2016 based upon a combination of historical averages, warranty expirations, and business-driven growth.

<b>2014 Total</b>	<b>0</b>	<b>-957</b>	<b>0</b>	<b>-957</b>	<b>0.0</b>	
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2015	0	-957	0	-957	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

Please see SDG&E-19-WP, cost center 2100-3855.000. This cost center includes distributed server and network contracts, which reflect a 1-time cost savings of \$.957 million in 2014. An 8% escalation rate was applied to 2015-2016 based upon a combination of historical averages, warranty expirations, and business-driven growth.

2015	0	361	0	361	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

Please see SDG&E-19-WP, cost center 2100-3855.000. This cost center includes distributed server and network contracts, which reflect a 1-time cost savings of \$.957 million in 2014. An 8% escalation rate was applied to 2015-2016 based upon a combination of historical averages, warranty expirations, and business-driven growth.

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3855.000 - CLINT SERVICES MAINTENANCE & SUPPORT

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	1,525	5,471
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,525</b>	<b>5,471</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	2,660	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,660</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	4,186	5,471
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4,186</b>	<b>5,471</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	72	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>72</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	4,258	5,471
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4,258</b>	<b>5,471</b>
FTE	0.0	0.0	0.0	0.0	0.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3855.000 - CLINT SERVICES MAINTENANCE & SUPPORT

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	0	0	0
Non-Labor	0	0	0	2,660	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,660</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2009 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2010 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2011 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
2012	0	2,660	0	0.0	CCTR Transf	From 2100-3857.000	MPEREIRA20140 423160209237
Internal reorganizational changes to monitor contract costs. Moved costs to 2100-3855.							
<b>2012 Total</b>	<b>0</b>	<b>2,660</b>	<b>0</b>	<b>0.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3856.000 - VOICE LEASED CIRCUITS**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3856.000 - VOICE LEASED CIRCUITS

**Activity Description:**

This Cost Center is for planning and payment of Voice circuits leasing costs associated with voice communication for the Company on a system-wide basis.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
	Labor	0	0	0	0	0	0	0	0	
	Non-Labor	0	0	0	413	900	1,069	1,155	1,247	
	NSE	0	0	0	0	0	0	0	0	
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>413</b>	<b>900</b>	<b>1,069</b>	<b>1,155</b>	<b>1,247</b>	
	FTE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3856.000 - VOICE LEASED CIRCUITS

**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	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.	0	900	0	900	0.00	0	1,069	0	1,069	0.00
<b>Total Incurred</b>	<b>0</b>	<b>900</b>	<b>0</b>	<b>900</b>	<b>0.00</b>	<b>0</b>	<b>1,069</b>	<b>0</b>	<b>1,069</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	41.63%	41.63%				39.20%	39.20%			
SEU	53.01%	53.01%				45.13%	45.13%			
CORP	4.34%	4.34%				6.39%	6.39%			
Unreg	1.02%	1.02%				9.28%	9.28%			

	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.	0	1,155	0	1,155	0.00	0	1,247	0	1,247	0.00
<b>Total Incurred</b>	<b>0</b>	<b>1,155</b>	<b>0</b>	<b>1,155</b>	<b>0.00</b>	<b>0</b>	<b>1,247</b>	<b>0</b>	<b>1,247</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	39.20%	39.20%				39.20%	39.20%			
SEU	45.13%	45.13%				45.13%	45.13%			
CORP	6.39%	6.39%				6.39%	6.39%			
Unreg	9.28%	9.28%				9.28%	9.28%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3856.000 - VOICE LEASED CIRCUITS

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

**Cost Center Allocation Percentage for 2013**

The Voice Leased Circuit cost center costs are for leased contract costs for voice communications functions for Telecommunications device users at SDGE, SCG, Parent and Global Companies. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. The Telephone devices count across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. LAN ID are assigned specifically to users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent.

**Cost Center Allocation Percentage for 2014**

The Voice Leased Circuit cost center costs are for leased contract costs for voice communications functions for Telecommunications device users at SDGE, SCG, Parent and Global Companies. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. The Telephone devices count across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. LAN ID are assigned specifically to users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent.

**Cost Center Allocation Percentage for 2015**

The Voice Leased Circuit cost center costs are for leased contract costs for voice communications functions for Telecommunications device users at SDGE, SCG, Parent and Global Companies. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. The Telephone devices count across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. LAN ID are assigned specifically to users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent.

**Cost Center Allocation Percentage for 2016**

*Note: Totals may include rounding differences.*



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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3856.000 - VOICE LEASED CIRCUITS

The Voice Leased Circuit cost center costs are for leased contract costs for voice communications functions for Telecommunications device users at SDGE, SCG, Parent and Global Companies. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. The Telephone devices count across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes. Computer users are provided a LAN ID in order to access and use the services provided by IT & Client Services cost centers. LAN ID are assigned specifically to users at the respective companies and is the most efficient and streamlined method to accurately determine the use of services by the various companies. LAN IDs are assigned to all types of workers, employees and non-employees, providing an improved allocation measure compared to employee FTE counts. Therefore, LAN ID is the most representative determination for the allocation of costs to SDGE, SCG, and Parent.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3856.000 - VOICE LEASED CIRCUITS

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	900	900	900	169	255	347	1,069	1,155	1,247
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>900</b>	<b>900</b>	<b>900</b>	<b>169</b>	<b>255</b>	<b>347</b>	<b>1,069</b>	<b>1,155</b>	<b>1,247</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	0	169	0	169	0.0	1-Sided Adj

2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

<b>2014 Total</b>	<b>0</b>	<b>169</b>	<b>0</b>	<b>169</b>	<b>0.0</b>	
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2015	0	86	0	86	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

2015	0	169	0	169	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3856.000 - VOICE LEASED CIRCUITS

<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>0</b>	<b>255</b>	<b>0</b>	<b>255</b>	<b>0.0</b>	
2016	0	169	0	169	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 &amp; 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.</p>						
2016	0	92	0	92	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 &amp; 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.</p>						
2016	0	86	0	86	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 &amp; 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.</p>						
<b>2016 Total</b>	<b>0</b>	<b>347</b>	<b>0</b>	<b>347</b>	<b>0.0</b>	

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3856.000 - VOICE LEASED CIRCUITS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	406	900
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>406</b>	<b>900</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	406	900
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>406</b>	<b>900</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	7	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</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	0	0	0	0	0
Non-Labor	0	0	0	413	900
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>413</b>	<b>900</b>
FTE	0.0	0.0	0.0	0.0	0.0

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

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

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3856.000 - VOICE LEASED CIRCUITS

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3859.000 - SDGE PERSONAL OWNED DEVICE ALLOWANCE**

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3859.000 - SDGE PERSONAL OWNED DEVICE ALLOWANCE

**Activity Description:**

Charges for SDG&E and Corporate Center employees' monthly allowance amounts for use of their personal mobile phones for Company activities.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		0	0	0	25	327	528	570	616	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>327</b>	<b>528</b>	<b>570</b>	<b>616</b>	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3859.000 - SDGE PERSONAL OWNED DEVICE ALLOWANCE

**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	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.	0	327	0	327	0.00	0	528	0	528	0.00
<b>Total Incurred</b>	<b>0</b>	<b>327</b>	<b>0</b>	<b>327</b>	<b>0.00</b>	<b>0</b>	<b>528</b>	<b>0</b>	<b>528</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	91.91%	91.91%				91.36%	91.36%			
SEU	0.00%	0.00%				0.00%	0.00%			
CORP	8.09%	8.09%				8.64%	8.64%			
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.	0	570	0	570	0.00	0	616	0	616	0.00
<b>Total Incurred</b>	<b>0</b>	<b>570</b>	<b>0</b>	<b>570</b>	<b>0.00</b>	<b>0</b>	<b>616</b>	<b>0</b>	<b>616</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	91.36%	91.36%				91.36%	91.36%			
SEU	0.00%	0.00%				0.00%	0.00%			
CORP	8.64%	8.64%				8.64%	8.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.



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Area: INFORMATION TECHNOLOGY  
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Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3859.000 - SDGE PERSONAL OWNED DEVICE ALLOWANCE

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

**Cost Center Allocation Percentage for 2013**

The use of SDG&E and Parent LAN ID s is the most appropriate metric for allocating SDG&E and Parent employees' monthly allowance amounts for use of their personal mobile phones as it represents the most accurate allocation available of employees requesting personal owned device allowances. SCG costs are charged to a separate and dedicated SCG cost center.

**Cost Center Allocation Percentage for 2014**

The use of SDG&E and Parent LAN ID s is the most appropriate metric for allocating SDG&E and Parent employees' monthly allowance amounts for use of their personal mobile phones as it represents the most accurate allocation available of employees requesting personal owned device allowances. SCG costs are charged to a separate and dedicated SCG cost center.

**Cost Center Allocation Percentage for 2015**

The use of SDG&E and Parent LAN ID s is the most appropriate metric for allocating SDG&E and Parent employees' monthly allowance amounts for use of their personal mobile phones as it represents the most accurate allocation available of employees requesting personal owned device allowances. SCG costs are charged to a separate and dedicated SCG cost center.

**Cost Center Allocation Percentage for 2016**

The use of SDG&E and Parent LAN ID s is the most appropriate metric for allocating SDG&E and Parent employees' monthly allowance amounts for use of their personal mobile phones as it represents the most accurate allocation available of employees requesting personal owned device allowances. SCG costs are charged to a separate and dedicated SCG cost center.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3859.000 - SDGE PERSONAL OWNED DEVICE ALLOWANCE

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	327	327	327	201	243	289	528	570	616
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>327</b>	<b>327</b>	<b>327</b>	<b>201</b>	<b>243</b>	<b>289</b>	<b>528</b>	<b>570</b>	<b>616</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	0	201	0	201	0.0	1-Sided Adj

2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

<b>2014 Total</b>	<b>0</b>	<b>201</b>	<b>0</b>	<b>201</b>	<b>0.0</b>	
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2015	0	201	0	201	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

2015	0	42	0	42	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3859.000 - SDGE PERSONAL OWNED DEVICE ALLOWANCE

<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>0</b>	<b>243</b>	<b>0</b>	<b>243</b>	<b>0.0</b>	

2016 0 201 0 201 0.0 1-Sided Adj

2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

2016 0 46 0 46 0.0 1-Sided Adj

2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

2016 0 42 0 42 0.0 1-Sided Adj

2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

<b>2016 Total</b>	<b>0</b>	<b>289</b>	<b>0</b>	<b>289</b>	<b>0.0</b>	
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Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3859.000 - SDGE PERSONAL OWNED DEVICE ALLOWANCE

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	25	327
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>327</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	25	327
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>327</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	25	327
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>327</b>
FTE	0.0	0.0	0.0	0.0	0.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3859.000 - SDGE PERSONAL OWNED DEVICE ALLOWANCE

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3884.000 - MGD SVC VOICE ENTERP**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3884.000 - MGD SVC VOICE ENTERP

**Activity Description:**

This Cost Center is for the monthly vendor payments for the managed services of system-wide Voice support costs, excluding SCG contracts.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		0	0	0	0	888	890	961	1,038	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>888</b>	<b>890</b>	<b>961</b>	<b>1,038</b>	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3884.000 - MGD SVC VOICE ENTERP

**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	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.	0	888	0	888	0.00	0	890	0	890	0.00
<b>Total Incurred</b>	<b>0</b>	<b>888</b>	<b>0</b>	<b>888</b>	<b>0.00</b>	<b>0</b>	<b>890</b>	<b>0</b>	<b>890</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	41.60%	41.60%				39.20%	39.20%			
SEU	44.90%	44.90%				45.13%	45.13%			
CORP	7.57%	7.57%				6.39%	6.39%			
Unreg	5.93%	5.93%				9.28%	9.28%			

	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.	0	961	0	961	0.00	0	1,038	0	1,038	0.00
<b>Total Incurred</b>	<b>0</b>	<b>961</b>	<b>0</b>	<b>961</b>	<b>0.00</b>	<b>0</b>	<b>1,038</b>	<b>0</b>	<b>1,038</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	39.20%	39.20%				39.20%	39.20%			
SEU	45.13%	45.13%				45.13%	45.13%			
CORP	6.39%	6.39%				6.39%	6.39%			
Unreg	9.28%	9.28%				9.28%	9.28%			

Note: Totals may include rounding differences.



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3884.000 - MGD SVC VOICE ENTERP

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

**Cost Center Allocation Percentage for 2013**

This cost center costs are for Voice Managed Services that support voice communications functions for Telecommunications device users at SDGE, Parent and Global Companies. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. SCG costs are charged to a separate and dedicated SCG cost center. The Telephone devices count across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

**Cost Center Allocation Percentage for 2014**

This cost center costs are for Voice Managed Services that support voice communications functions for Telecommunications device users at SDGE, Parent and Global Companies. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. SCG costs are charged to a separate and dedicated SCG cost center. The Telephone devices count across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

**Cost Center Allocation Percentage for 2015**

This cost center costs are for Voice Managed Services that support voice communications functions for Telecommunications device users at SDGE, Parent and Global Companies. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. SCG costs are charged to a separate and dedicated SCG cost center. The Telephone devices count across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

**Cost Center Allocation Percentage for 2016**

This cost center costs are for Voice Managed Services that support voice communications functions for Telecommunications device users at SDGE, Parent and Global Companies. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company. SCG costs are charged to a separate and dedicated SCG cost center. The Telephone devices count across companies will be measured on an annual basis at the end of the fiscal year and changed accordingly for the next fiscal year if company usage changes.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3884.000 - MGD SVC VOICE ENTERP

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	888	888	888	2	73	150	890	961	1,038
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>888</b>	<b>888</b>	<b>888</b>	<b>2</b>	<b>73</b>	<b>150</b>	<b>890</b>	<b>961</b>	<b>1,038</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

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

Department reorganizational changes \$2k NL adjustment.

<b>2014 Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0.0</b>	
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2015	0	2	0	2	0.0	1-Sided Adj
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Department reorganizational changes \$2k NL adjustment.

2015	0	71	0	71	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

<b>2015 Total</b>	<b>0</b>	<b>73</b>	<b>0</b>	<b>73</b>	<b>0.0</b>	
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2016	0	2	0	2	0.0	1-Sided Adj
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Department reorganizational changes \$2k NL adjustment.

2016	0	77	0	77	0.0	1-Sided Adj
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
 2016 GRC - REVISED  
 Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3884.000 - MGD SVC VOICE ENTERP

<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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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

2016	0	71	0	71	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.

IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations.

<b>2016 Total</b>	<b>0</b>	<b>150</b>	<b>0</b>	<b>150</b>	<b>0.0</b>	
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3884.000 - MGD SVC VOICE ENTERP

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	888
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>888</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	888
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>888</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	888
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>888</b>
FTE	0.0	0.0	0.0	0.0	0.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3884.000 - MGD SVC VOICE ENTERP

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3885.000 - VOICE ENTERP SUPPORT**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3885.000 - VOICE ENTERP SUPPORT

**Activity Description:**

This Cost Center supports the managed services of system-wide Voice support costs.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	426	426	426	426	
Non-Labor		0	0	0	0	4	4	4	4	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>430</b>	<b>430</b>	<b>430</b>	<b>430</b>	
FTE		0.0	0.0	0.0	0.0	3.7	3.7	3.7	3.7	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3885.000 - VOICE ENTERP SUPPORT

**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	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.	426	4	0	430	3.71	426	4	0	430	3.71
<b>Total Incurred</b>	<b>426</b>	<b>4</b>	<b>0</b>	<b>430</b>	<b>3.71</b>	<b>426</b>	<b>4</b>	<b>0</b>	<b>430</b>	<b>3.71</b>
<b>% Allocation</b>										
Retained	41.61%	41.61%				39.20%	39.20%			
SEU	44.90%	44.90%				45.13%	45.13%			
CORP	7.56%	7.56%				6.39%	6.39%			
Unreg	5.93%	5.93%				9.28%	9.28%			

	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.	426	4	0	430	3.71	426	4	0	430	3.71
<b>Total Incurred</b>	<b>426</b>	<b>4</b>	<b>0</b>	<b>430</b>	<b>3.71</b>	<b>426</b>	<b>4</b>	<b>0</b>	<b>430</b>	<b>3.71</b>
<b>% Allocation</b>										
Retained	39.20%	39.20%				39.20%	39.20%			
SEU	45.13%	45.13%				45.13%	45.13%			
CORP	6.39%	6.39%				6.39%	6.39%			
Unreg	9.28%	9.28%				9.28%	9.28%			

Note: Totals may include rounding differences.



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3885.000 - VOICE ENTERP SUPPORT

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

**Cost Center Allocation Percentage for 2013**

This cost center costs are for Voice Managed Services that support voice communications functions for Telecommunications device users at SDGE, SCG, Parent and Global Companies. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company.

**Cost Center Allocation Percentage for 2014**

This cost center costs are for Voice Managed Services that support voice communications functions for Telecommunications device users at SDGE, SCG, Parent and Global Companies. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company.

**Cost Center Allocation Percentage for 2015**

This cost center costs are for Voice Managed Services that support voice communications functions for Telecommunications device users at SDGE, SCG, Parent and Global Companies. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company.

**Cost Center Allocation Percentage for 2016**

This cost center costs are for Voice Managed Services that support voice communications functions for Telecommunications device users at SDGE, SCG, Parent and Global Companies. There is a unique Telephone device ID for every phone device used by the Companies and therefore, the Telephone device count is the most representative determination for the allocation of voice support costs to the Company.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3885.000 - VOICE ENTERP SUPPORT

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	426	426	426	0	0	0	426	426	426
Non-Labor	Base YR Rec	4	4	4	0	0	0	4	4	4
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>430</b>	<b>430</b>	<b>430</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>430</b>	<b>430</b>	<b>430</b>
FTE	Base YR Rec	3.7	3.7	3.7	0.0	0.0	0.0	3.7	3.7	3.7

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3885.000 - VOICE ENTERP SUPPORT

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	367
Non-Labor	0	0	0	0	4
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>372</b>
FTE	0.0	0.0	0.0	0.0	3.2
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	367
Non-Labor	0	0	0	0	4
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>372</b>
FTE	0.0	0.0	0.0	0.0	3.2
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	58
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>58</b>
FTE	0.0	0.0	0.0	0.0	0.6
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	426
Non-Labor	0	0	0	0	4
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>430</b>
FTE	0.0	0.0	0.0	0.0	3.8

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
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 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3885.000 - VOICE ENTERP SUPPORT

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3888.000 - CLIENT TECH SVCS**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3888.000 - CLIENT TECH SVCS

**Activity Description:**

A business relationship management function between IT and IT's clients system-wide (Sempra's regulated utilities, Corporate Center), this group represents IT's services to these internal clients in an account management function to assist clients in achieving greater business optimization through the improved and effective use of IT's services. Specific functions include facilitating the resolution of problems where standard processes are not adequate, understanding the business operations and recommending further use of IT or outside technology services to improve the business and/or to save money. Educating clients on the value of IT policies and standards and bringing client needs to IT that would otherwise go unrecognized.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	310	310	310	310	
Non-Labor		0	0	0	0	17	17	17	17	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>326</b>	<b>326</b>	<b>326</b>	<b>326</b>	
FTE		0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3888.000 - CLIENT TECH SVCS

**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	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.	309	17	0	326	2.42	309	17	0	326	2.43
<b>Total Incurred</b>	<b>309</b>	<b>17</b>	<b>0</b>	<b>326</b>	<b>2.42</b>	<b>309</b>	<b>17</b>	<b>0</b>	<b>326</b>	<b>2.43</b>
<b>% Allocation</b>										
Retained	41.58%	41.58%				38.08%	38.08%			
SEU	54.76%	54.76%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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.	309	17	0	326	2.43	309	17	0	326	2.43
<b>Total Incurred</b>	<b>309</b>	<b>17</b>	<b>0</b>	<b>326</b>	<b>2.43</b>	<b>309</b>	<b>17</b>	<b>0</b>	<b>326</b>	<b>2.43</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

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Category: B. Infrastructure  
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Cost Center: 2100-3888.000 - CLIENT TECH SVCS

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center. The allocations are supported by the rationale that Education, Training and Communication activities of this cost center that are provided to IT employees is a benefit to all users at Sempra Utilities and Parent, since IT employees provide support to all users at Sempra Utilities and Parent.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center. The allocations are supported by the rationale that Education, Training and Communication activities of this cost center that are provided to IT employees is a benefit to all users at Sempra Utilities and Parent, since IT employees provide support to all users at Sempra Utilities and Parent.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center. The allocations are supported by the rationale that Education, Training and Communication activities of this cost center that are provided to IT employees is a benefit to all users at Sempra Utilities and Parent, since IT employees provide support to all users at Sempra Utilities and Parent.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center. The allocations are supported by the rationale that Education, Training and Communication activities of this cost center that are provided to IT employees is a benefit to all users at Sempra Utilities and Parent, since IT employees provide support to all users at Sempra Utilities and Parent.

*Note: Totals may include rounding differences.*



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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3888.000 - CLIENT TECH SVCS

**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	310	310	310	0	0	0	310	310	310
Non-Labor	Base YR Rec	17	17	17	0	0	0	17	17	17
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>326</b>	<b>326</b>	<b>326</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>326</b>	<b>326</b>	<b>326</b>
FTE	Base YR Rec	2.4	2.4	2.4	0.0	0.0	0.0	2.4	2.4	2.4

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3888.000 - CLIENT TECH SVCS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	267
Non-Labor	0	0	0	0	17
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>284</b>
FTE	0.0	0.0	0.0	0.0	2.1
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	267
Non-Labor	0	0	0	0	17
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>284</b>
FTE	0.0	0.0	0.0	0.0	2.1
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	42
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>42</b>
FTE	0.0	0.0	0.0	0.0	0.4
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	310
Non-Labor	0	0	0	0	17
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>326</b>
FTE	0.0	0.0	0.0	0.0	2.5

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

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

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3888.000 - CLIENT TECH SVCS

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3900.000 - IT PORTFOLIO MANAGEMENT**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3900.000 - IT PORTFOLIO MANAGEMENT

**Activity Description:**

The IT portfolio Manager provides project management and development for IT Related Projects enterprise wide, as well as documentation for all business case and concepts. Also, project management for several SDGE funded projects.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	89	89	157	225	
Non-Labor		0	0	0	0	6	363	628	643	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>95</b>	<b>452</b>	<b>785</b>	<b>868</b>	
FTE		0.0	0.0	0.0	0.0	0.6	0.6	1.3	2.1	

*Note: Totals may include rounding differences.*

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 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3900.000 - IT PORTFOLIO MANAGEMENT

**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	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.	89	6	0	95	0.59	89	363	0	452	0.59
<b>Total Incurred</b>	<b>89</b>	<b>6</b>	<b>0</b>	<b>95</b>	<b>0.59</b>	<b>89</b>	<b>363</b>	<b>0</b>	<b>452</b>	<b>0.59</b>
<b>% Allocation</b>										
Retained	100.00%	100.00%				100.00%	100.00%			
SEU	0.00%	0.00%				0.00%	0.00%			
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.	157	628	0	785	1.29	225	643	0	868	2.09
<b>Total Incurred</b>	<b>157</b>	<b>628</b>	<b>0</b>	<b>785</b>	<b>1.29</b>	<b>225</b>	<b>643</b>	<b>0</b>	<b>868</b>	<b>2.09</b>
<b>% Allocation</b>										
Retained	100.00%	100.00%				100.00%	100.00%			
SEU	0.00%	0.00%				0.00%	0.00%			
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**

Calculations are based on a weighted average of the department's cost allocations. This is appropriate as this cost center manages the performance of all cost centers within the IT PMO department.

**Cost Center Allocation Percentage for 2014**

Calculations are based on a weighted average of the department's cost allocations. This is appropriate as this cost center manages the performance of all cost centers within the IT PMO department.

**Cost Center Allocation Percentage for 2015**

Calculations are based on a weighted average of the department's cost allocations. This is appropriate as this cost center manages the performance of all cost centers within the IT PMO department.

**Cost Center Allocation Percentage for 2016**

Calculations are based on a weighted average of the department's cost allocations. This is appropriate as this cost center manages the performance of all cost centers within the IT PMO department.

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3900.000 - IT PORTFOLIO MANAGEMENT

**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	89	89	89	0	68	136	89	157	225
Non-Labor	Base YR Rec	6	6	6	357	622	637	363	628	643
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>95</b>	<b>95</b>	<b>95</b>	<b>357</b>	<b>690</b>	<b>773</b>	<b>452</b>	<b>785</b>	<b>868</b>
FTE	Base YR Rec	0.6	0.6	0.6	0.0	0.7	1.5	0.6	1.3	2.1

**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	0	357	0	357	0.0	1-Sided Adj
Apptio business performance measurement system						
<b>2014 Total</b>	<b>0</b>	<b>357</b>	<b>0</b>	<b>357</b>	<b>0.0</b>	

2015                      25                      10                      0                      35                      0.3                      1-Sided Adj

.6 new employees to support new IT initiatives across the company in 2014 and 2015. \$100k average salary plus \$10k per employee in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

2015                      43                      5                      0                      48                      0.4                      1-Sided Adj

.9 FTE at \$100k for an admin position and an IT analyst. Also \$10k in associated NL costs for IT analyst only

2015                      0                      357                      0                      357                      0.0                      1-Sided Adj

Apptio business performance measurement system. This is the annual payment of a multi-year software contract, paid in January of 2014 and will continue into 2015, 2016, and beyond.

2015                      0                      250                      0                      250                      0.0                      1-Sided Adj

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3900.000 - IT PORTFOLIO MANAGEMENT

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>
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Develop multi-year strategies for major application families and review existing strategies against emerging technologies and market trends, improving the long term reliability and supportability of our application portfolio. Engage third-party specialists to help evaluate and recommend solution options.

Management estimate for various consulting engagements (2-6 months) to analyze application roadmap options for potential capital investments in major applications. These engagements range from \$30 to \$250k each.

<b>2015 Total</b>	<b>68</b>	<b>622</b>	<b>0</b>	<b>690</b>	<b>0.7</b>	
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2016	25	10	0	35	0.3	1-Sided Adj
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.6 new employees to support new IT initiatives across the company in 2014 and 2015. \$100k average salary plus \$10k per employee in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

2016	86	10	0	96	0.9	1-Sided Adj
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.9 FTE at \$100k for an admin position and an IT analyst. Also \$10k in associated NL costs for IT analyst only

2016	25	10	0	35	0.3	1-Sided Adj
------	----	----	---	----	-----	-------------

.6 new employees to support new IT initiatives across the company in 2014 and 2015. \$100k average salary plus \$10k per employee in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

2016	0	357	0	357	0.0	1-Sided Adj
------	---	-----	---	-----	-----	-------------

Apptio business performance measurement system. This is the annual payment of a multi-year software contract, paid in January of 2014 and will continue into 2015, 2016, and beyond.

2016	0	250	0	250	0.0	1-Sided Adj
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Note: Totals may include rounding differences.



San Diego Gas & Electric Company  
 2016 GRC - REVISED  
 Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3900.000 - IT PORTFOLIO MANAGEMENT

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

Develop multi-year strategies for major application families and review existing strategies against emerging technologies and market trends, improving the long term reliability and supportability of our application portfolio. Engage third-party specialists to help evaluate and recommend solution options.

Management estimate for various consulting engagements (2-6 months) to analyze application roadmap options for potential capital investments in major applications. These engagements range from \$30 to \$250k each.

<b>2016 Total</b>	<b>136</b>	<b>637</b>	<b>0</b>	<b>773</b>	<b>1.5</b>	
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-3900.000 - IT PORTFOLIO MANAGEMENT

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	76
Non-Labor	0	0	0	0	6
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>83</b>
FTE	0.0	0.0	0.0	0.0	0.5
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	76
Non-Labor	0	0	0	0	6
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>83</b>
FTE	0.0	0.0	0.0	0.0	0.5
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	12
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>
FTE	0.0	0.0	0.0	0.0	0.1
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	89
Non-Labor	0	0	0	0	6
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>95</b>
FTE	0.0	0.0	0.0	0.0	0.6

\* 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.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-3900.000 - IT PORTFOLIO MANAGEMENT

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-4003.000 - IT Communications**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-4003.000 - IT Communications

**Activity Description:**

A business relationship management function between IT and IT's clients (Sempra's regulated utilities, Corporate Center). This group represents IT's services to these internal clients in an account management function to assist clients in achieving greater business optimization through the improved and effective use of IT's services. Specific functions include facilitating the resolution of problems where standard processes are not adequate, understanding the business operations and recommending further use of IT or outside technology services to improve the business and/or to save money. Educating clients on the value of IT policies and standards and bringing client needs to IT that would otherwise go unrecognized.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	31	126	141	90	90	90	90	
Non-Labor		0	2	7	4	1	1	1	1	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>33</b>	<b>133</b>	<b>145</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	
FTE		0.0	0.2	1.2	1.6	1.2	1.2	1.2	1.2	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-4003.000 - IT Communications

**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	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.	90	1	0	91	1.23	90	1	0	91	1.23
<b>Total Incurred</b>	<b>90</b>	<b>1</b>	<b>0</b>	<b>91</b>	<b>1.23</b>	<b>90</b>	<b>1</b>	<b>0</b>	<b>91</b>	<b>1.23</b>
<b>% Allocation</b>										
Retained	38.29%	38.29%				38.08%	38.08%			
SEU	59.00%	59.00%				58.32%	58.32%			
CORP	2.71%	2.71%				3.60%	3.60%			
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.	90	1	0	91	1.23	90	1	0	91	1.23
<b>Total Incurred</b>	<b>90</b>	<b>1</b>	<b>0</b>	<b>91</b>	<b>1.23</b>	<b>90</b>	<b>1</b>	<b>0</b>	<b>91</b>	<b>1.23</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-4003.000 - IT Communications

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center. The allocations are supported by the rationale that Education, Training and Communication activities of this cost center that are provided to IT employees is a benefit to all employees at Sempra Utilities and Parent, since IT employees provide support to all employees at Sempra Utilities and Parent.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center. The allocations are supported by the rationale that Education, Training and Communication activities of this cost center that are provided to IT employees is a benefit to all employees at Sempra Utilities and Parent, since IT employees provide support to all employees at Sempra Utilities and Parent.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center. The allocations are supported by the rationale that Education, Training and Communication activities of this cost center that are provided to IT employees is a benefit to all employees at Sempra Utilities and Parent, since IT employees provide support to all employees at Sempra Utilities and Parent.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center. The allocations are supported by the rationale that Education, Training and Communication activities of this cost center that are provided to IT employees is a benefit to all employees at Sempra Utilities and Parent, since IT employees provide support to all employees at Sempra Utilities and Parent.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-4003.000 - IT Communications

**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	90	90	90	0	0	0	90	90	90
Non-Labor	Base YR Rec	1	1	1	0	0	0	1	1	1
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>92</b>	<b>92</b>	<b>92</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>92</b>	<b>92</b>	<b>92</b>
FTE	Base YR Rec	1.2	1.2	1.2	0.0	0.0	0.0	1.2	1.2	1.2

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-4003.000 - IT Communications

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	104	185	200	78
Non-Labor	0	5	10	7	1
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>109</b>	<b>195</b>	<b>207</b>	<b>79</b>
FTE	0.0	1.2	2.0	2.4	1.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	-79	-79	-79	0
Non-Labor	0	-3	-3	-3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>-82</b>	<b>-82</b>	<b>-82</b>	<b>0</b>
FTE	0.0	-1.0	-1.0	-1.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	25	106	121	78
Non-Labor	0	2	7	4	1
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>27</b>	<b>113</b>	<b>125</b>	<b>79</b>
FTE	0.0	0.2	1.0	1.4	1.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	4	16	17	12
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>4</b>	<b>16</b>	<b>17</b>	<b>12</b>
FTE	0.0	0.0	0.2	0.2	0.2
<b>Escalation to 2013\$</b>					
Labor	0	2	5	2	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>2</b>	<b>5</b>	<b>2</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	31	126	141	90
Non-Labor	0	2	7	4	1
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>33</b>	<b>133</b>	<b>145</b>	<b>92</b>
FTE	0.0	0.2	1.2	1.6	1.2

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: B. Infrastructure  
 Category-Sub: 1. Infrastructure  
 Cost Center: 2100-4003.000 - IT Communications

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	-79	-79	-79	0
Non-Labor	0	-3	-3	-3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>-82</b>	<b>-82</b>	<b>-82</b>	<b>0</b>
FTE	0.0	-1.0	-1.0	-1.0	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	-79	-3	0	-1.0	CCTR Transf	To 2200-2047.000	FFIGUERO20131 031151031517
Zero out 2010 thru 2013: GRID 2009 Data is Zero Per Finance/delete entries from 2100-4003 for 2010 thru 2013 Entries will now appear in cctr 2100-3082 from 2009 to 2013							
<b>2010 Total</b>	<b>-79</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			
2011	-79	-3	0	-1.0	CCTR Transf	To 2200-2047.000	FFIGUERO20131 031151258257
Zero out 2010 thru 2013: GRID 2009 Data is Zero Per Finance/delete entries from 2100-4003 for 2010 thru 2013 Entries will now appear in cctr 2100-3082 from 2009 to 2013							
<b>2011 Total</b>	<b>-79</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			
2012	-79	-3	0	-1.0	CCTR Transf	To 2200-2047.000	FFIGUERO20131 031151338347
Zero out 2010 thru 2013: GRID 2009 Data is Zero Per Finance/delete entries from 2100-4003 for 2010 thru 2013 Entries will now appear in cctr 2100-3082 from 2009 to 2013							
<b>2012 Total</b>	<b>-79</b>	<b>-3</b>	<b>0</b>	<b>-1.0</b>			

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: B. Infrastructure  
Category-Sub: 1. Infrastructure  
Cost Center: 2100-4003.000 - IT Communications

<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 Total	0	0	0	0.0			

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Cost Center: VARIOUS

**Summary for Category: C. Information Security**

	In 2013\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	2,514	2,514	2,637	2,760
Non-Labor	1,071	1,434	2,674	2,849
NSE	0	0	0	0
<b>Total</b>	<b>3,585</b>	<b>3,948</b>	<b>5,311</b>	<b>5,609</b>
FTE	23.0	23.0	24.2	25.5

**Cost Centers belonging to this Category:**

**2100-3101.000 INFORMATION SECURITY**

Labor	212	212	212	212
Non-Labor	11	11	61	61
NSE	0	0	0	0
<b>Total</b>	<b>223</b>	<b>223</b>	<b>273</b>	<b>273</b>
FTE	2.0	2.0	2.0	2.0

**2100-3763.000 DIRECTOR - INFORMATION SECURITY**

Labor	175	175	175	175
Non-Labor	65	65	245	285
NSE	0	0	0	0
<b>Total</b>	<b>240</b>	<b>240</b>	<b>420</b>	<b>460</b>
FTE	1.9	1.9	1.9	1.9

**2100-3774.000 SECURITY ENGINEERING**

Labor	765	765	765	765
Non-Labor	108	108	228	228
NSE	0	0	0	0
<b>Total</b>	<b>873</b>	<b>873</b>	<b>993</b>	<b>993</b>
FTE	7.0	7.0	7.0	7.0

**2100-3775.000 SECURITY OPERATIONS**

Labor	1,115	1,115	1,115	1,115
Non-Labor	313	313	763	838
NSE	0	0	0	0
<b>Total</b>	<b>1,428</b>	<b>1,428</b>	<b>1,878</b>	<b>1,953</b>
FTE	11.0	11.0	11.0	11.0

**2100-3781.000 IS Contracts**

Labor	0	0	0	0
Non-Labor	507	870	1,290	1,330
NSE	0	0	0	0
<b>Total</b>	<b>507</b>	<b>870</b>	<b>1,290</b>	<b>1,330</b>
FTE	0.0	0.0	0.0	0.0

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Cost Center: VARIOUS

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

**2100-3814.000 DIRECTOR IT INFRASTRUCTURE**

Labor	229	229	352	475
Non-Labor	67	67	87	107
NSE	0	0	0	0
<b>Total</b>	<b>296</b>	<b>296</b>	<b>439</b>	<b>582</b>
FTE	1.0	1.0	2.2	3.5

**2100-3817.000 INFO SECURITY PROG**

Labor	18	18	18	18
Non-Labor	0	0	0	0
NSE	0	0	0	0
<b>Total</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>
FTE	0.1	0.1	0.1	0.1

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3101.000 - INFORMATION SECURITY**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3101.000 - INFORMATION SECURITY

**Activity Description:**

This cost center provides Data & Privacy Governance support, including IT security awareness and training, and Privacy, Legislative, and Data Governance enterprise wide

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		1,565	872	574	692	212	212	212	212	
Non-Labor		568	83	170	-25	11	11	61	61	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>2,133</b>	<b>955</b>	<b>744</b>	<b>667</b>	<b>223</b>	<b>223</b>	<b>273</b>	<b>273</b>	
FTE		13.9	7.8	5.1	4.3	2.0	2.0	2.0	2.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3101.000 - INFORMATION SECURITY

**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	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.	212	11	0	223	1.95	212	11	0	223	1.95
<b>Total Incurred</b>	<b>212</b>	<b>11</b>	<b>0</b>	<b>223</b>	<b>1.95</b>	<b>212</b>	<b>11</b>	<b>0</b>	<b>223</b>	<b>1.95</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
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.	212	61	0	273	1.95	212	61	0	273	1.95
<b>Total Incurred</b>	<b>212</b>	<b>61</b>	<b>0</b>	<b>273</b>	<b>1.95</b>	<b>212</b>	<b>61</b>	<b>0</b>	<b>273</b>	<b>1.95</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.



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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3101.000 - INFORMATION SECURITY

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3101.000 - INFORMATION SECURITY

**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	212	212	212	0	0	0	212	212	212
Non-Labor	Base YR Rec	11	11	11	0	50	50	11	61	61
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>223</b>	<b>223</b>	<b>223</b>	<b>0</b>	<b>50</b>	<b>50</b>	<b>223</b>	<b>273</b>	<b>273</b>
FTE	Base YR Rec	2.0	2.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
2015	0	50	0	50	0.0	1-Sided Adj
<p>Information Security - Support for increased security awareness events, communication, and company training. Assumes estimated annual cost for communication materials to be used to support security awareness and education.</p>						
<b>2015 Total</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>50</b>	<b>0.0</b>	
2016	0	50	0	50	0.0	1-Sided Adj
<p>Information Security - Support for increased security awareness events, communication, and company training. Assumes estimated annual cost for communication materials to be used to support security awareness and education.</p>						
<b>2016 Total</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>50</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3101.000 - INFORMATION SECURITY

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	1,396	860	639	593	183
Non-Labor	528	87	172	-16	11
NSE	0	0	0	0	0
<b>Total</b>	<b>1,924</b>	<b>947</b>	<b>812</b>	<b>577</b>	<b>194</b>
FTE	13.9	8.7	6.4	5.7	1.7
<b>Adjustments (Nominal \$) **</b>					
Labor	-158	-158	-158	2	0
Non-Labor	-9	-9	-9	-9	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-167</b>	<b>-167</b>	<b>-167</b>	<b>-7</b>	<b>0</b>
FTE	-2.0	-2.0	-2.0	-2.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	1,238	702	482	595	183
Non-Labor	519	78	163	-25	11
NSE	0	0	0	0	0
<b>Total</b>	<b>1,757</b>	<b>780</b>	<b>645</b>	<b>570</b>	<b>194</b>
FTE	11.9	6.7	4.4	3.7	1.7
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	191	112	71	86	29
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>191</b>	<b>112</b>	<b>71</b>	<b>86</b>	<b>29</b>
FTE	2.0	1.2	0.7	0.6	0.3
<b>Escalation to 2013\$</b>					
Labor	136	58	22	12	0
Non-Labor	49	6	6	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>185</b>	<b>63</b>	<b>28</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	1,565	872	574	692	212
Non-Labor	568	83	170	-25	11
NSE	0	0	0	0	0
<b>Total</b>	<b>2,133</b>	<b>955</b>	<b>744</b>	<b>667</b>	<b>223</b>
FTE	13.9	7.9	5.1	4.3	2.0

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

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

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3101.000 - INFORMATION SECURITY

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-158	-158	-158	2	0
Non-Labor	-9	-9	-9	-9	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-167</b>	<b>-167</b>	<b>-167</b>	<b>-7</b>	<b>0</b>
FTE	-2.0	-2.0	-2.0	-2.0	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	-78	-3	0	-1.0	CCTR Transf	To 2200-2469.000	FFIGUERO20131 031133323167
IT Employee Transfer from SDGE to SCG as of 2013							
2009	-80	-6	0	-1.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031133752180
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-158</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
2010	-78	-3	0	-1.0	CCTR Transf	To 2200-2469.000	FFIGUERO20131 031133430403
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-80	-6	0	-1.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031133837087
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-158</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
2011	-78	-3	0	-1.0	CCTR Transf	To 2200-2469.000	FFIGUERO20131 031133514970
IT Employee Transfer from SDGE to SCG as of 2013							
2011	-80	-6	0	-1.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031133927840
IT Employee Transfer from SDGE to SCG as of 2013							

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3101.000 - INFORMATION SECURITY

<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>-158</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
2012	-78	-3	0	-1.0	CCTR Transf	To 2200-2469.000	FFIGUERO20131 031133548650
IT Employee Transfer from SDGE to SCG as of 2013							
2012	80	-6	0	-1.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031134002053
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>2</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3763.000 - DIRECTOR - INFORMATION SECURITY**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3763.000 - DIRECTOR - INFORMATION SECURITY

**Activity Description:**

This cost center includes the management of IT Information Security and its administrative support. Activities include department level management for Information Security, including Security Engineering, Security Operations, IT regulatory compliance, and IT security maintenance contracts, enterprise-wide

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	275	227	133	175	175	175	175	
Non-Labor		2	22	22	143	65	65	245	285	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>2</b>	<b>297</b>	<b>250</b>	<b>276</b>	<b>240</b>	<b>240</b>	<b>420</b>	<b>460</b>	
FTE		0.0	2.3	1.9	0.9	1.9	1.9	1.9	1.9	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3763.000 - DIRECTOR - INFORMATION SECURITY

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

	2013 Adjusted-Recorded					2014 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	2	0	2	0.00	0	2	0	2	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	175	63	0	238	1.86	175	63	0	238	1.86
<b>Total Incurred</b>	<b>175</b>	<b>65</b>	<b>0</b>	<b>240</b>	<b>1.86</b>	<b>175</b>	<b>65</b>	<b>0</b>	<b>240</b>	<b>1.86</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

  

	2015 Adjusted-Forecast					2016 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	2	0	2	0.00	0	2	0	2	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	175	243	0	418	1.86	175	283	0	458	1.86
<b>Total Incurred</b>	<b>175</b>	<b>245</b>	<b>0</b>	<b>420</b>	<b>1.86</b>	<b>175</b>	<b>285</b>	<b>0</b>	<b>460</b>	<b>1.86</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.



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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3763.000 - DIRECTOR - INFORMATION SECURITY

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3763.000 - DIRECTOR - INFORMATION SECURITY

**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	175	175	175	0	0	0	175	175	175
Non-Labor	Base YR Rec	65	65	65	0	180	220	65	245	285
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>240</b>	<b>240</b>	<b>240</b>	<b>0</b>	<b>180</b>	<b>220</b>	<b>240</b>	<b>420</b>	<b>460</b>
FTE	Base YR Rec	1.9	1.9	1.9	0.0	0.0	0.0	1.9	1.9	1.9

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

2015                    0                    80                    0                    80                    0.0    1-Sided Adj

Management estimate to cover cost of training courses and attendance at industry conferences for Information Security personnel, based on security training for 13 people @ \$6K per person in 2015 and 16 people in 2016. Per person costs are based on SANS Institute training costs @ avg \$5K per course combined with an avg of \$1K travel & expense.

2015                    0                    100                    0                    100                    0.0    1-Sided Adj

Information Security - new non-capital security technology innovation and product evaluations - consulting. Assumes estimated annual cost for 3rd party vendor services.

<b>2015 Total</b>	<b>0</b>	<b>180</b>	<b>0</b>	<b>180</b>	<b>0.0</b>	
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2016                    0                    100                    0                    100                    0.0    1-Sided Adj

Management estimate to cover cost of training courses and attendance at industry conferences for Information Security personnel, based on security training for 13 people @ \$6K per person in 2015 and 16 people in 2016. Per person costs are based on SANS Institute training costs @ avg \$5K per course combined with an avg of \$1K travel & expense.

2016                    0                    120                    0                    120                    0.0    1-Sided Adj

Information Security - new non-capital security technology innovation and product evaluations - consulting. Assumes estimated annual cost for 3rd party vendor services.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3763.000 - DIRECTOR - INFORMATION SECURITY

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
<b>2016 Total</b>	<b>0</b>	<b>220</b>	<b>0</b>	<b>220</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3763.000 - DIRECTOR - INFORMATION SECURITY

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	222	191	114	151
Non-Labor	2	20	21	141	65
NSE	0	0	0	0	0
<b>Total</b>	<b>2</b>	<b>242</b>	<b>212</b>	<b>255</b>	<b>216</b>
FTE	0.0	2.0	1.7	0.8	1.6
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	222	191	114	151
Non-Labor	2	20	21	141	65
NSE	0	0	0	0	0
<b>Total</b>	<b>2</b>	<b>242</b>	<b>212</b>	<b>255</b>	<b>216</b>
FTE	0.0	2.0	1.7	0.8	1.6
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	35	28	17	24
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>35</b>	<b>28</b>	<b>17</b>	<b>24</b>
FTE	0.0	0.3	0.3	0.1	0.3
<b>Escalation to 2013\$</b>					
Labor	0	18	9	2	0
Non-Labor	0	1	1	2	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>20</b>	<b>9</b>	<b>5</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	275	227	133	175
Non-Labor	2	22	22	143	65
NSE	0	0	0	0	0
<b>Total</b>	<b>2</b>	<b>297</b>	<b>250</b>	<b>276</b>	<b>240</b>
FTE	0.0	2.3	2.0	0.9	1.9

\* 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.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3763.000 - DIRECTOR - INFORMATION SECURITY

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3774.000 - SECURITY ENGINEERING**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3774.000 - SECURITY ENGINEERING

**Activity Description:**

The Security Services section provides enterprise-scale security functions and integration services for business, operational, and IT technology assets.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		12	565	585	697	765	765	765	765	
Non-Labor		0	107	207	172	108	108	228	228	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>12</b>	<b>672</b>	<b>792</b>	<b>868</b>	<b>873</b>	<b>873</b>	<b>993</b>	<b>993</b>	
FTE		0.1	5.1	5.4	6.4	7.0	7.0	7.0	7.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3774.000 - SECURITY ENGINEERING

**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	62	79	0	141	0.58	62	79	0	141	0.58
Directly Allocated	4	2	0	6	0.04	4	2	0	6	0.04
Subj. To % Alloc.	698	29	0	727	6.42	698	27	0	725	6.42
<b>Total Incurred</b>	<b>764</b>	<b>110</b>	<b>0</b>	<b>874</b>	<b>7.04</b>	<b>764</b>	<b>108</b>	<b>0</b>	<b>872</b>	<b>7.04</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
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	62	79	0	141	0.58	62	79	0	141	0.58
Directly Allocated	4	2	0	6	0.04	4	2	0	6	0.04
Subj. To % Alloc.	698	147	0	845	6.42	698	147	0	845	6.42
<b>Total Incurred</b>	<b>764</b>	<b>228</b>	<b>0</b>	<b>992</b>	<b>7.04</b>	<b>764</b>	<b>228</b>	<b>0</b>	<b>992</b>	<b>7.04</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3774.000 - SECURITY ENGINEERING

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3774.000 - SECURITY ENGINEERING

**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	765	765	765	0	0	0	765	765	765
Non-Labor	Base YR Rec	108	108	108	0	120	120	108	228	228
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>873</b>	<b>873</b>	<b>873</b>	<b>0</b>	<b>120</b>	<b>120</b>	<b>873</b>	<b>993</b>	<b>993</b>
FTE	Base YR Rec	7.0	7.0	7.0	0.0	0.0	0.0	7.0	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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
2015	0	120	0	120	0.0	1-Sided Adj
Information Security - New service offering based on cloud collaboration and data sharing services. Assumes estimated annual cost for 3rd party vendor services.						
<b>2015 Total</b>	<b>0</b>	<b>120</b>	<b>0</b>	<b>120</b>	<b>0.0</b>	
2016	0	120	0	120	0.0	1-Sided Adj
Information Security - New service offering based on cloud collaboration and data sharing services. Assumes estimated annual cost for 3rd party vendor services.						
<b>2016 Total</b>	<b>0</b>	<b>120</b>	<b>0</b>	<b>120</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3774.000 - SECURITY ENGINEERING

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	10	455	491	598	660
Non-Labor	0	100	202	169	110
NSE	0	0	0	0	0
<b>Total</b>	<b>10</b>	<b>555</b>	<b>692</b>	<b>767</b>	<b>770</b>
FTE	0.1	4.3	4.7	5.5	6.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	-2	0	-2
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>-2</b>	<b>0</b>	<b>-2</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	10	455	491	598	660
Non-Labor	0	100	199	169	108
NSE	0	0	0	0	0
<b>Total</b>	<b>10</b>	<b>555</b>	<b>690</b>	<b>767</b>	<b>768</b>
FTE	0.1	4.3	4.7	5.5	6.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	1	72	72	87	105
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>1</b>	<b>72</b>	<b>72</b>	<b>87</b>	<b>105</b>
FTE	0.0	0.7	0.8	0.9	1.0
<b>Escalation to 2013\$</b>					
Labor	1	37	22	12	0
Non-Labor	0	7	8	3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>1</b>	<b>44</b>	<b>30</b>	<b>15</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	12	565	585	697	765
Non-Labor	0	107	207	172	108
NSE	0	0	0	0	0
<b>Total</b>	<b>12</b>	<b>672</b>	<b>792</b>	<b>868</b>	<b>873</b>
FTE	0.1	5.0	5.5	6.4	7.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3774.000 - SECURITY ENGINEERING

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From CCtr</u>	<u>RefID</u>
<b>2009 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
<b>2010 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
2011	0	-2	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 140831627
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2011 Total</b>	<b>0</b>	<b>-2</b>	<b>0</b>	<b>0.0</b>			
<b>2012 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
2013	0	-2	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 142255640
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2013 Total</b>	<b>0</b>	<b>-2</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3775.000 - SECURITY OPERATIONS**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3775.000 - SECURITY OPERATIONS

**Activity Description:**

This cost center provides enterprise system-wide security operations support, including incident response & forensics, digital investigations, threat and vulnerability management, and security engineering

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		-232	553	924	1,363	1,115	1,115	1,115	1,115	
Non-Labor		-10	224	375	509	313	313	763	838	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>-242</b>	<b>777</b>	<b>1,299</b>	<b>1,872</b>	<b>1,429</b>	<b>1,429</b>	<b>1,879</b>	<b>1,954</b>	
FTE		-2.3	5.1	9.3	13.6	11.0	11.0	11.0	11.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3775.000 - SECURITY OPERATIONS

**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	50	6	0	56	0.49	50	6	0	56	0.49
Directly Allocated	1	1	0	2	0.00	1	1	0	2	0.01
Subj. To % Alloc.	1,065	306	0	1,371	10.53	1,065	306	0	1,371	10.53
<b>Total Incurred</b>	<b>1,116</b>	<b>313</b>	<b>0</b>	<b>1,429</b>	<b>11.02</b>	<b>1,116</b>	<b>313</b>	<b>0</b>	<b>1,429</b>	<b>11.03</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
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	50	6	0	56	0.49	50	6	0	56	0.49
Directly Allocated	1	1	0	2	0.01	1	1	0	2	0.01
Subj. To % Alloc.	1,065	756	0	1,821	10.53	1,065	831	0	1,896	10.53
<b>Total Incurred</b>	<b>1,116</b>	<b>763</b>	<b>0</b>	<b>1,879</b>	<b>11.03</b>	<b>1,116</b>	<b>838</b>	<b>0</b>	<b>1,954</b>	<b>11.03</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3775.000 - SECURITY OPERATIONS

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*





San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3775.000 - SECURITY OPERATIONS

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
<b>2016 Total</b>	<b>0</b>	<b>525</b>	<b>0</b>	<b>525</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3775.000 - SECURITY OPERATIONS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	6	636	965	1,360	963
Non-Labor	0	218	370	509	313
NSE	0	0	0	0	0
<b>Total</b>	<b>6</b>	<b>854</b>	<b>1,335</b>	<b>1,870</b>	<b>1,276</b>
FTE	0.1	6.4	10.0	13.7	9.4
<b>Adjustments (Nominal \$) **</b>					
Labor	-190	-190	-190	-190	0
Non-Labor	-9	-9	-9	-9	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-199</b>	<b>-199</b>	<b>-199</b>	<b>-199</b>	<b>0</b>
FTE	-2.0	-2.0	-2.0	-2.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	-184	446	775	1,170	963
Non-Labor	-9	209	361	500	313
NSE	0	0	0	0	0
<b>Total</b>	<b>-193</b>	<b>655</b>	<b>1,136</b>	<b>1,670</b>	<b>1,276</b>
FTE	-1.9	4.4	8.0	11.7	9.4
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	-28	71	114	170	153
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-28</b>	<b>71</b>	<b>114</b>	<b>170</b>	<b>153</b>
FTE	-0.3	0.8	1.3	1.9	1.6
<b>Escalation to 2013\$</b>					
Labor	-20	37	35	23	0
Non-Labor	-1	15	14	9	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-21</b>	<b>51</b>	<b>49</b>	<b>32</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	-232	553	924	1,363	1,115
Non-Labor	-10	224	375	509	313
NSE	0	0	0	0	0
<b>Total</b>	<b>-242</b>	<b>777</b>	<b>1,299</b>	<b>1,872</b>	<b>1,429</b>
FTE	-2.2	5.2	9.3	13.6	11.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3775.000 - SECURITY OPERATIONS

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-190	-190	-190	-190	0
Non-Labor	-9	-9	-9	-9	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-199</b>	<b>-199</b>	<b>-199</b>	<b>-199</b>	<b>0</b>
FTE	-2.0	-2.0	-2.0	-2.0	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	-190	-9	0	-2.0	CCTR Transf	To 2200-2469.000	FFIGUERO20131 031145930553
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-190</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
2010	-190	-9	0	-2.0	CCTR Transf	To 2200-2469.000	FFIGUERO20131 031150011357
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2010 Total</b>	<b>-190</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
2011	-190	-9	0	-2.0	CCTR Transf	To 2200-2469.000	FFIGUERO20131 031150047723
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-190</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			
2012	-190	-9	0	-2.0	CCTR Transf	To 2200-2469.000	FFIGUERO20131 031150119673
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2012 Total</b>	<b>-190</b>	<b>-9</b>	<b>0</b>	<b>-2.0</b>			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3775.000 - SECURITY OPERATIONS

<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 Total	0	0	0	0.0			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3781.000 - IS Contracts**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3781.000 - IS Contracts

**Activity Description:**

This cost center contains all IT Security Contracts, including system-wide hardware and software maintenance agreements.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	0	0	0	0	0	
Non-Labor		0	637	1,027	830	507	870	1,290	1,330	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>637</b>	<b>1,027</b>	<b>830</b>	<b>507</b>	<b>870</b>	<b>1,290</b>	<b>1,330</b>	
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3781.000 - IS Contracts

**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	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.	0	507	0	507	0.00	0	870	0	870	0.00
<b>Total Incurred</b>	<b>0</b>	<b>507</b>	<b>0</b>	<b>507</b>	<b>0.00</b>	<b>0</b>	<b>870</b>	<b>0</b>	<b>870</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
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.	0	1,290	0	1,290	0.00	0	1,330	0	1,330	0.00
<b>Total Incurred</b>	<b>0</b>	<b>1,290</b>	<b>0</b>	<b>1,290</b>	<b>0.00</b>	<b>0</b>	<b>1,330</b>	<b>0</b>	<b>1,330</b>	<b>0.00</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.



San Diego Gas & Electric Company  
2016 GRC - REVISED  
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Area: INFORMATION TECHNOLOGY  
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Category: C. Information Security  
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Cost Center: 2100-3781.000 - IS Contracts

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
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Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3781.000 - IS Contracts

**Forecast Summary:**

In 2013 \$(000) Incurred Costs										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2014	2015	2016	2014	2015	2016	2014	2015	2016
Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
Non-Labor	Base YR Rec	507	507	507	363	783	823	870	1,290	1,330
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>507</b>	<b>507</b>	<b>507</b>	<b>363</b>	<b>783</b>	<b>823</b>	<b>870</b>	<b>1,290</b>	<b>1,330</b>
FTE	Base YR Rec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2014	0	363	0	363	0.0	1-Sided Adj

2014 adjustment to current contractual obligations. 2015 adds additional 300k in IT security contracts to cover prepaid warranties that are expiring, and 2016 adds another \$40k to cover additional prepaid warranties that are expiring.

<b>2014 Total</b>	<b>0</b>	<b>363</b>	<b>0</b>	<b>363</b>	<b>0.0</b>	
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2015	0	663	0	663	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 adds additional 300k in IT security contracts to cover prepaid warranties that are expiring, and 2016 adds another \$40k to cover additional prepaid warranties that are expiring.

2015	0	120	0	120	0.0	1-Sided Adj
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Information Security - threat intelligence supporting risk mitigation and infrastructure protection. Assumes estimated annual cost for 3rd party vendor services averaging \$10K per week and \$25k for an annual maintenance agreement resulting from the related project implementation.

<b>2015 Total</b>	<b>0</b>	<b>783</b>	<b>0</b>	<b>783</b>	<b>0.0</b>	
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2016	0	703	0	703	0.0	1-Sided Adj
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2014 adjustment to current contractual obligations. 2015 adds additional 300k in IT security contracts to cover prepaid warranties that are expiring, and 2016 adds another \$40k to cover additional prepaid warranties that are expiring.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
 2016 GRC - REVISED  
 Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
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 Cost Center: 2100-3781.000 - IS Contracts

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2016	0	120	0	120	0.0	1-Sided Adj

Information Security - threat intelligence supporting risk mitigation and infrastructure protection.  
 Assumes estimated annual cost for 3rd party vendor services averaging \$10K per week and  
 \$25k for an annual maintenance agreement resulting from the related project implementation.

<b>2016 Total</b>	<b>0</b>	<b>823</b>	<b>0</b>	<b>823</b>	<b>0.0</b>	
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3781.000 - IS Contracts

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	0	0
Non-Labor	0	594	988	816	507
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>594</b>	<b>988</b>	<b>816</b>	<b>507</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	594	988	816	507
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>594</b>	<b>988</b>	<b>816</b>	<b>507</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	0	0	0
Non-Labor	0	42	39	14	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>42</b>	<b>39</b>	<b>14</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	0	0
Non-Labor	0	637	1,027	830	507
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>637</b>	<b>1,027</b>	<b>830</b>	<b>507</b>
FTE	0.0	0.0	0.0	0.0	0.0

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

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

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3781.000 - IS Contracts

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3814.000 - DIRECTOR IT INFRASTRUCTURE**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3814.000 - DIRECTOR IT INFRASTRUCTURE

**Activity Description:**

This cost center includes the Director of IT Information Security and Information Management and his administrative support. Activities include department level management for Information Security, Customer Intelligence and Analytics, Data and Privacy Governance, Business Intelligence, Enterprise Architecture, and other support areas.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	259	222	229	229	352	475	
Non-Labor		0	0	75	130	67	67	87	107	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>335</b>	<b>351</b>	<b>296</b>	<b>296</b>	<b>439</b>	<b>582</b>	
FTE		0.0	0.0	1.7	1.0	1.0	1.0	2.2	3.5	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3814.000 - DIRECTOR IT INFRASTRUCTURE

**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	0	0	2	0.00	2	0	0	2	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	227	67	0	294	1.04	227	67	0	294	1.04
<b>Total Incurred</b>	<b>229</b>	<b>67</b>	<b>0</b>	<b>296</b>	<b>1.04</b>	<b>229</b>	<b>67</b>	<b>0</b>	<b>296</b>	<b>1.04</b>
<b>% Allocation</b>										
Retained	43.56%	43.56%				43.56%	43.56%			
SEU	52.90%	52.90%				52.90%	52.90%			
CORP	3.54%	3.54%				3.54%	3.54%			
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	0	0	2	0.00	2	0	0	2	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	350	87	0	437	2.24	473	107	0	580	3.54
<b>Total Incurred</b>	<b>352</b>	<b>87</b>	<b>0</b>	<b>439</b>	<b>2.24</b>	<b>475</b>	<b>107</b>	<b>0</b>	<b>582</b>	<b>3.54</b>
<b>% Allocation</b>										
Retained	43.56%	43.56%				43.56%	43.56%			
SEU	52.90%	52.90%				52.90%	52.90%			
CORP	3.54%	3.54%				3.54%	3.54%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.



San Diego Gas & Electric Company  
2016 GRC - REVISED  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3814.000 - DIRECTOR IT INFRASTRUCTURE

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the weighted average of each cost center within his department. This is the department director's cost center, which supports the entire organization. The use of a weighted average is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the weighted average of each cost center within his department. This is the department director's cost center, which supports the entire organization. The use of a weighted average is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the weighted average of each cost center within his department. This is the department director's cost center, which supports the entire organization. The use of a weighted average is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the weighted average of each cost center within his department. This is the department director's cost center, which supports the entire organization. The use of a weighted average is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3814.000 - DIRECTOR IT INFRASTRUCTURE

**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	229	229	229	0	123	246	229	352	475
Non-Labor	Base YR Rec	67	67	67	0	20	40	67	87	107
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>296</b>	<b>296</b>	<b>296</b>	<b>0</b>	<b>143</b>	<b>286</b>	<b>296</b>	<b>439</b>	<b>582</b>
FTE	Base YR Rec	1.0	1.0	1.0	0.0	1.2	2.5	1.0	2.2	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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

2015                      123                      20                      0                      143                      1.2      1-Sided Adj

1.95 new employees to support new IT initiatives across the company in 2015 and in 2016.  
 \$100k average salary plus \$10k per employee in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

<b>2015 Total</b>	<b>123</b>	<b>20</b>	<b>0</b>	<b>143</b>	<b>1.2</b>	
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2016                      246                      40                      0                      286                      2.5      1-Sided Adj

1.95 new employees to support new IT initiatives across the company in 2015 and in 2016.  
 \$100k average salary plus \$10k per employee in associated NL costs.

Incremental Employee requirements were estimated to be 15 headcount across the IT Division in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year.

<b>2016 Total</b>	<b>246</b>	<b>40</b>	<b>0</b>	<b>286</b>	<b>2.5</b>	
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3814.000 - DIRECTOR IT INFRASTRUCTURE

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	218	190	198
Non-Labor	0	0	72	127	67
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>290</b>	<b>318</b>	<b>264</b>
FTE	0.0	0.0	1.5	0.9	0.9
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	218	190	198
Non-Labor	0	0	72	127	67
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>290</b>	<b>318</b>	<b>264</b>
FTE	0.0	0.0	1.5	0.9	0.9
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	32	28	31
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>28</b>	<b>31</b>
FTE	0.0	0.0	0.2	0.1	0.2
<b>Escalation to 2013\$</b>					
Labor	0	0	10	4	0
Non-Labor	0	0	3	2	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>6</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	259	222	229
Non-Labor	0	0	75	130	67
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>335</b>	<b>351</b>	<b>296</b>
FTE	0.0	0.0	1.7	1.0	1.1

\* 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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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3814.000 - DIRECTOR IT INFRASTRUCTURE

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3817.000 - INFO SECURITY PROG**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3817.000 - INFO SECURITY PROG

**Activity Description:**

This cost center includes various Informational Security program costs.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	82	50	18	18	18	18	
Non-Labor		0	0	3	5	0	0	0	0	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>84</b>	<b>56</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>19</b>	
FTE		0.0	0.0	0.7	0.4	0.1	0.1	0.1	0.1	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3817.000 - INFO SECURITY PROG

**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	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.	18	0	0	18	0.15	18	0	0	18	0.15
<b>Total Incurred</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0.15</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0.15</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
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.	18	0	0	18	0.15	18	0	0	18	0.15
<b>Total Incurred</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0.15</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0.15</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3817.000 - INFO SECURITY PROG

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3817.000 - INFO SECURITY PROG

**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	18	18	18	0	0	0	18	18	18
Non-Labor	Base YR Rec	0	0	0	0	0	0	0	0	0
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>19</b>	<b>19</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>19</b>	<b>19</b>
FTE	Base YR Rec	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: C. Information Security  
Category-Sub: 1. Information Security  
Cost Center: 2100-3817.000 - INFO SECURITY PROG

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	68	43	16
Non-Labor	0	0	3	5	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>71</b>	<b>48</b>	<b>16</b>
FTE	0.0	0.0	0.6	0.4	0.1
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	68	43	16
Non-Labor	0	0	3	5	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>71</b>	<b>48</b>	<b>16</b>
FTE	0.0	0.0	0.6	0.4	0.1
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	10	6	3
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>6</b>	<b>3</b>
FTE	0.0	0.0	0.1	0.1	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	3	1	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	82	50	18
Non-Labor	0	0	3	5	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>84</b>	<b>56</b>	<b>19</b>
FTE	0.0	0.0	0.7	0.5	0.1

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: C. Information Security  
 Category-Sub: 1. Information Security  
 Cost Center: 2100-3817.000 - INFO SECURITY PROG

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Cost Center: VARIOUS

**Summary for Category: D. IT Support**

	In 2013\$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	3,686	3,850	3,850	3,850
Non-Labor	1,623	1,494	1,494	1,494
NSE	0	0	0	0
<b>Total</b>	<b>5,309</b>	<b>5,344</b>	<b>5,344</b>	<b>5,344</b>
FTE	34.8	35.8	35.8	35.8

**Cost Centers belonging to this Category:**

**2100-3064.000 VP INFORMATION TECHNOLOGY**

Labor	336	336	336	336
Non-Labor	416	416	416	416
NSE	0	0	0	0
<b>Total</b>	<b>752</b>	<b>752</b>	<b>752</b>	<b>752</b>
FTE	2.0	2.0	2.0	2.0

**2100-3067.000 IT BUSINESS PLANNING & BUDGETS**

Labor	709	759	759	759
Non-Labor	9	29	29	29
NSE	0	0	0	0
<b>Total</b>	<b>718</b>	<b>788</b>	<b>788</b>	<b>788</b>
FTE	7.1	7.1	7.1	7.1

**2100-3317.000 IT ACCOUNT MANAGEMENT**

Labor	266	266	266	266
Non-Labor	338	338	338	338
NSE	0	0	0	0
<b>Total</b>	<b>604</b>	<b>604</b>	<b>604</b>	<b>604</b>
FTE	3.0	3.0	3.0	3.0

**2100-3699.000 SOLUTIONS ARCHITECTURE**

Labor	340	340	340	340
Non-Labor	-40	-40	-40	-40
NSE	0	0	0	0
<b>Total</b>	<b>300</b>	<b>300</b>	<b>300</b>	<b>300</b>
FTE	2.4	2.4	2.4	2.4

**2100-3713.000 FIELD FORCE PROGRAM DELIVERY TEAM**

Labor	497	497	497	497
Non-Labor	39	39	39	39
NSE	0	0	0	0
<b>Total</b>	<b>536</b>	<b>536</b>	<b>536</b>	<b>536</b>
FTE	4.9	4.9	4.9	4.9

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Cost Center: VARIOUS

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

**2100-3733.000 SVP & CITO**

Labor	393	393	393	393
Non-Labor	244	244	244	244
NSE	0	0	0	0
<b>Total</b>	<b>637</b>	<b>637</b>	<b>637</b>	<b>637</b>
FTE	1.4	1.4	1.4	1.4

**2100-3762.000 IT ENTERPRISE TRAINING AND CC**

Labor	131	131	131	131
Non-Labor	44	44	44	44
NSE	0	0	0	0
<b>Total</b>	<b>175</b>	<b>175</b>	<b>175</b>	<b>175</b>
FTE	1.0	1.0	1.0	1.0

**2100-3807.000 ENTERPRISE FINANCIAL & OPS SOLUTION**

Labor	7	121	121	121
Non-Labor	561	412	412	412
NSE	0	0	0	0
<b>Total</b>	<b>568</b>	<b>533</b>	<b>533</b>	<b>533</b>
FTE	0.0	1.0	1.0	1.0

**2100-3842.000 IT ASSOCIATE PROGRAM**

Labor	1,007	1,007	1,007	1,007
Non-Labor	12	12	12	12
NSE	0	0	0	0
<b>Total</b>	<b>1,019</b>	<b>1,019</b>	<b>1,019</b>	<b>1,019</b>
FTE	13.0	13.0	13.0	13.0

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3064.000 - VP INFORMATION TECHNOLOGY**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3064.000 - VP INFORMATION TECHNOLOGY

**Activity Description:**

This cost center supports the VP of IT and all related expenses.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		317	61	91	897	336	336	336	336	
Non-Labor		37	531	277	1,580	416	416	416	416	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>354</b>	<b>592</b>	<b>368</b>	<b>2,477</b>	<b>752</b>	<b>752</b>	<b>752</b>	<b>752</b>	
FTE		2.8	1.0	1.2	8.7	2.0	2.0	2.0	2.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3064.000 - VP INFORMATION TECHNOLOGY

**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	-62	0	-62	0.00	0	-62	0	-62	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	336	478	0	814	2.02	336	478	0	814	2.02
<b>Total Incurred</b>	<b>336</b>	<b>416</b>	<b>0</b>	<b>752</b>	<b>2.02</b>	<b>336</b>	<b>416</b>	<b>0</b>	<b>752</b>	<b>2.02</b>
<b>% Allocation</b>										
Retained	46.48%	46.48%				46.48%	46.48%			
SEU	49.66%	49.66%				49.66%	49.66%			
CORP	3.32%	3.32%				3.32%	3.32%			
Unreg	0.54%	0.54%				0.54%	0.54%			

	2015 Adjusted-Forecast					2016 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	-62	0	-62	0.00	0	-62	0	-62	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	336	478	0	814	2.02	336	478	0	814	2.02
<b>Total Incurred</b>	<b>336</b>	<b>416</b>	<b>0</b>	<b>752</b>	<b>2.02</b>	<b>336</b>	<b>416</b>	<b>0</b>	<b>752</b>	<b>2.02</b>
<b>% Allocation</b>										
Retained	46.48%	46.48%				46.48%	46.48%			
SEU	49.66%	49.66%				49.66%	49.66%			
CORP	3.32%	3.32%				3.32%	3.32%			
Unreg	0.54%	0.54%				0.54%	0.54%			

Note: Totals may include rounding differences.



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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Cost Center: 2100-3064.000 - VP INFORMATION TECHNOLOGY

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on a weighted average of the IT cost allocations of all cost centers reporting to the VP cost center. This is appropriate as this cost center manages the performance of all cost centers within the IT organization.

**Cost Center Allocation Percentage for 2014**

Calculations are based on a weighted average of the IT cost allocations of all cost centers reporting to the VP cost center. This is appropriate as this cost center manages the performance of all cost centers within the IT organization.

**Cost Center Allocation Percentage for 2015**

Calculations are based on a weighted average of the IT cost allocations of all cost centers reporting to the VP cost center. This is appropriate as this cost center manages the performance of all cost centers within the IT organization.

**Cost Center Allocation Percentage for 2016**

Calculations are based on a weighted average of the IT cost allocations of all cost centers reporting to the VP cost center. This is appropriate as this cost center manages the performance of all cost centers within the IT organization.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3064.000 - VP INFORMATION TECHNOLOGY

**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	336	336	336	0	0	0	336	336	336
Non-Labor	Base YR Rec	416	416	416	0	0	0	416	416	416
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>752</b>	<b>752</b>	<b>752</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>752</b>	<b>752</b>	<b>752</b>
FTE	Base YR Rec	2.0	2.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Cost Center: 2100-3064.000 - VP INFORMATION TECHNOLOGY

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	251	49	10	196	290
Non-Labor	34	471	77	291	416
NSE	0	0	0	0	0
<b>Total</b>	<b>285</b>	<b>521</b>	<b>87</b>	<b>487</b>	<b>706</b>
FTE	2.4	0.9	0.2	1.0	1.7
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	66	574	0
Non-Labor	0	25	189	1,262	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>25</b>	<b>256</b>	<b>1,836</b>	<b>0</b>
FTE	0.0	0.0	0.9	6.5	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	251	49	76	770	290
Non-Labor	34	496	266	1,553	416
NSE	0	0	0	0	0
<b>Total</b>	<b>285</b>	<b>545</b>	<b>343</b>	<b>2,323</b>	<b>706</b>
FTE	2.4	0.9	1.1	7.5	1.7
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	39	8	11	112	46
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>39</b>	<b>8</b>	<b>11</b>	<b>112</b>	<b>46</b>
FTE	0.4	0.1	0.2	1.2	0.3
<b>Escalation to 2013\$</b>					
Labor	27	4	3	15	0
Non-Labor	3	35	10	27	0
NSE	0	0	0	0	0
<b>Total</b>	<b>31</b>	<b>39</b>	<b>14</b>	<b>42</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	317	61	91	897	336
Non-Labor	37	531	277	1,580	416
NSE	0	0	0	0	0
<b>Total</b>	<b>354</b>	<b>592</b>	<b>368</b>	<b>2,477</b>	<b>752</b>
FTE	2.8	1.0	1.3	8.7	2.0

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

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

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3064.000 - VP INFORMATION TECHNOLOGY

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	0	0	66	574	0
Non-Labor	0	25	189	1,262	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>25</b>	<b>256</b>	<b>1,836</b>	<b>0</b>
FTE	0.0	0.0	0.9	6.5	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	0	25	0	0.0	CCTR Transf	From 2100-3758.000	LBROUGH201402 27152956327
							Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013)
2010	0	-25	0	0.0	SSD_Type Transf	FROM CC_Subj	LBROUGH201402 27153212337
							Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013) - move costs from SS allocation to directly allocated.
2010	0	25	0	0.0	SSD_Type Transf	TO IO_Alloc	LBROUGH201402 27153212337
							Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013) - move costs from SS allocation to directly allocated.
<b>2010 Total</b>	<b>0</b>	<b>25</b>	<b>0</b>	<b>0.0</b>			
2011	66	189	0	0.9	CCTR Transf	From 2100-3758.000	LBROUGH201402 27152907963
							Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013)
2011	-66	-189	0	-0.9	SSD_Type Transf	FROM CC_Subj	LBROUGH201402 27153120430
							Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013) - move costs from SS allocation to directly allocated.

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
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 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3064.000 - VP INFORMATION TECHNOLOGY

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>From Cctr</u>	<u>RefID</u>
2011	66	189	0	0.9	SSD_Type Transf	TO IO_Alloc	LBROUGH201402 27153120430
Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013) - move costs from SS allocation to directly allocated.							
<b>2011 Total</b>	<b>66</b>	<b>189</b>	<b>0</b>	<b>0.9</b>			
2012	574	1,262	0	6.5	CCTR Transf	From 2100-3067.000	LBROUGH201402 27152544260
Error should have been transferred to 2100-3064 not 2100-3067.							
Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013)							
2012	-574	-1,262	0	-6.5	1-Sided Adj	N/A	LBROUGH201402 27152706020
Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013) - move costs from SS allocation to directly allocated.							
2012	574	1,262	0	6.5	1-Sided Adj	N/A	LBROUGH201402 27152730887
Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013) - move costs from SS allocation to directly allocated.							
<b>2012 Total</b>	<b>574</b>	<b>1,262</b>	<b>0</b>	<b>6.5</b>			
2013	488	818	0	5.3	CCTR Transf	From 2100-3758.000	LBROUGH201402 27151439333
Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013)							
2013	-488	-818	0	-5.3	1-Sided Adj	N/A	LBROUGH201402 27151735627
Non-recurring Affiliate charge removed from 2013 base year. This was part of the transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013) - move from SS allocation to Directly allocated.							
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

Note: Totals may include rounding differences.

**Beginning of Workpaper**  
**2100-3067.000 - IT BUSINESS PLANNING & BUDGETS**

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3067.000 - IT BUSINESS PLANNING & BUDGETS

**Activity Description:**

The IT and Business Planning cost center contains a manager, his support staff, and related employee expenses necessary to support the business planning function for the IT organization.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

N/A

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		832	763	745	766	709	759	759	759	
Non-Labor		16	11	91	33	9	29	29	29	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>848</b>	<b>773</b>	<b>836</b>	<b>799</b>	<b>718</b>	<b>788</b>	<b>788</b>	<b>788</b>	
FTE		8.2	7.8	8.3	8.5	7.1	7.1	7.1	7.1	

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3067.000 - IT BUSINESS PLANNING & BUDGETS

**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	0	0	1	0.01	1	0	0	1	0.01
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	708	8	0	716	7.12	758	28	0	786	7.12
<b>Total Incurred</b>	<b>709</b>	<b>8</b>	<b>0</b>	<b>717</b>	<b>7.13</b>	<b>759</b>	<b>28</b>	<b>0</b>	<b>787</b>	<b>7.13</b>
<b>% Allocation</b>										
Retained	66.55%	66.55%				66.55%	66.55%			
SEU	30.74%	30.74%				30.74%	30.74%			
CORP	2.27%	2.27%				2.27%	2.27%			
Unreg	0.44%	0.44%				0.44%	0.44%			

	2015 Adjusted-Forecast					2016 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	1	0	0	1	0.01	1	0	0	1	0.01
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	758	28	0	786	7.12	758	28	0	786	7.12
<b>Total Incurred</b>	<b>759</b>	<b>28</b>	<b>0</b>	<b>787</b>	<b>7.13</b>	<b>759</b>	<b>28</b>	<b>0</b>	<b>787</b>	<b>7.13</b>
<b>% Allocation</b>										
Retained	66.55%	66.55%				66.55%	66.55%			
SEU	30.74%	30.74%				30.74%	30.74%			
CORP	2.27%	2.27%				2.27%	2.27%			
Unreg	0.44%	0.44%				0.44%	0.44%			

Note: Totals may include rounding differences.



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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Cost Center: 2100-3067.000 - IT BUSINESS PLANNING & BUDGETS

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

**Cost Center Allocation Percentage for 2013**

A weighted average of all cost centers in the CITO organization was used to calculate the percentages for this cost center. The Business Planning department supports all cost centers within the IT division so a weighted average is an appropriate methodology for this cost center.

**Cost Center Allocation Percentage for 2014**

A weighted average of all cost centers in the CITO organization was used to calculate the percentages for this cost center. The Business Planning department supports all cost centers within the IT division so a weighted average is an appropriate methodology for this cost center.

**Cost Center Allocation Percentage for 2015**

A weighted average of all cost centers in the CITO organization was used to calculate the percentages for this cost center. The Business Planning department supports all cost centers within the IT division so a weighted average is an appropriate methodology for this cost center.

**Cost Center Allocation Percentage for 2016**

A weighted average of all cost centers in the CITO organization was used to calculate the percentages for this cost center. The Business Planning department supports all cost centers within the IT division so a weighted average is an appropriate methodology for this cost center.

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3067.000 - IT BUSINESS PLANNING & BUDGETS

**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	709	709	709	50	50	50	759	759	759
Non-Labor	Base YR Rec	9	9	9	20	20	20	29	29	29
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>718</b>	<b>718</b>	<b>718</b>	<b>70</b>	<b>70</b>	<b>70</b>	<b>788</b>	<b>788</b>	<b>788</b>
FTE	Base YR Rec	7.1	7.1	7.1	0.0	0.0	0.0	7.1	7.1	7.1

**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	50	20	0	70	0.0	1-Sided Adj

1 FTE MARP (Managerial Accounting Rotation Program) and \$20k in non- labor to expand training for 5 employees within the Business Planning & Budgets department (\$4k per employee).

The MARP program provides recent graduates the opportunity to gain operational experience while helping to support various projects within the IT department. Management estimates that 1 MARP at 50k per year will provide supplemental analytical support to the IT business planning department.

<b>2014 Total</b>	<b>50</b>	<b>20</b>	<b>0</b>	<b>70</b>	<b>0.0</b>	
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2015	50	20	0	70	0.0	1-Sided Adj
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1 FTE MARP (Managerial Accounting Rotation Program) and \$20k in non- labor to expand training for 5 employees within the Business Planning & Budgets department (\$4k per employee).

The MARP program provides recent graduates the opportunity to gain operational experience while helping to support various projects within the IT department. Management estimates that 1 MARP at 50k per year will provide supplemental analytical support to the IT business planning department.

<b>2015 Total</b>	<b>50</b>	<b>20</b>	<b>0</b>	<b>70</b>	<b>0.0</b>	
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2016	50	20	0	70	0.0	1-Sided Adj
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3067.000 - IT BUSINESS PLANNING & BUDGETS

<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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1 FTE MARP (Managerial Accounting Rotation Program) and \$20k in non-labor to expand training for 5 employees within the Business Planning & Budgets department (\$4k per employee).

The MARP program provides recent graduates the opportunity to gain operational experience while helping to support various projects within the IT department. Management estimates that 1 MARP at 50k per year will provide supplemental analytical support to the IT business planning department.

<b>2016 Total</b>	<b>50</b>	<b>20</b>	<b>0</b>	<b>70</b>	<b>0.0</b>	
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*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Cost Center: 2100-3067.000 - IT BUSINESS PLANNING & BUDGETS

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	378	327	456	480	612
Non-Labor	9	5	78	30	9
NSE	0	0	0	0	0
<b>Total</b>	<b>387</b>	<b>331</b>	<b>534</b>	<b>510</b>	<b>621</b>
FTE	4.4	4.0	5.4	5.5	6.1
<b>Adjustments (Nominal \$) **</b>					
Labor	280	288	168	177	0
Non-Labor	5	5	10	3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>286</b>	<b>293</b>	<b>178</b>	<b>180</b>	<b>0</b>
FTE	2.6	2.6	1.7	1.8	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	659	615	625	658	612
Non-Labor	14	10	88	33	9
NSE	0	0	0	0	0
<b>Total</b>	<b>673</b>	<b>624</b>	<b>712</b>	<b>690</b>	<b>621</b>
FTE	7.0	6.6	7.1	7.3	6.1
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	102	98	92	95	97
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>102</b>	<b>98</b>	<b>92</b>	<b>95</b>	<b>97</b>
FTE	1.2	1.1	1.2	1.2	1.1
<b>Escalation to 2013\$</b>					
Labor	72	50	28	13	0
Non-Labor	1	1	3	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>73</b>	<b>51</b>	<b>31</b>	<b>14</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	832	763	745	766	709
Non-Labor	16	11	91	33	9
NSE	0	0	0	0	0
<b>Total</b>	<b>848</b>	<b>773</b>	<b>836</b>	<b>799</b>	<b>718</b>
FTE	8.2	7.7	8.3	8.5	7.2

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3067.000 - IT BUSINESS PLANNING & BUDGETS

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	280	288	168	177	0
Non-Labor	5	5	10	3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>286</b>	<b>293</b>	<b>178</b>	<b>180</b>	<b>0</b>
FTE	2.6	2.6	1.7	1.8	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	280	5	0	2.6	CCTR Transf	From 2100-3012.000	SDEW201310151 45142117
Cost center merged with 2100-3067							
<b>2009 Total</b>	<b>280</b>	<b>5</b>	<b>0</b>	<b>2.6</b>			
2010	288	5	0	2.6	CCTR Transf	From 2100-3012.000	SDEW201310151 45327180
Employees merged into cost center 2100-3067							
2010	0	0.008	0	0.0	CCTR Transf	From 2100-3012.000	SDEW201310151 50505800
Employees merged with cost center 2100-3067							
<b>2010 Total</b>	<b>288</b>	<b>5</b>	<b>0</b>	<b>2.6</b>			
2011	168	10	0	1.7	CCTR Transf	From 2100-3012.000	SDEW201310151 50649653
Employees merged with cost center 2100-3067							
<b>2011 Total</b>	<b>168</b>	<b>10</b>	<b>0</b>	<b>1.7</b>			
2012	574	1,262	0	6.5	CCTR Transf	From 2100-3758.000	LBROUGH201402 27152306670
Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE Electric Distribution (wkgrp 1ED013)							

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
 2016 GRC - REVISED  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3067.000 - IT BUSINESS PLANNING & BUDGETS

<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	-574	-1,262	0	-6.5	CCTR Transf	To 2100-3064.000	LBROUGH201402 27152544260

Error should have been transferred to 2100-3064 not 2100-3067.

Transfer of the affiliate portion of CPD costs prior to the transfer of all CPD costs to SDGE  
 Electric Distribution (wkgrp 1ED013)

2012	177	3	0	1.8	CCTR Transf	From 2100-3012.000	SDEW201310151 50744837
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Employees merged with cost center 2100-3067

<b>2012 Total</b>	<b>177</b>	<b>3</b>	<b>0</b>	<b>1.8</b>			
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<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			
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Note: Totals may include rounding differences.

**Beginning of Workpaper**  
**2100-3317.000 - IT ACCOUNT MANAGEMENT**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3317.000 - IT ACCOUNT MANAGEMENT

**Activity Description:**

A business relationship management function between IT Education, Training & Communications group at SDG&E and the entirety of SDG&E, SoCalGas and the Sempra Energy Corporate Center. The "Training" group represents IT's services to these 3 internal clients in an account management function to assist clients in achieving greater business optimization through the improved and effective use of IT's services.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		420	244	212	297	266	266	266	266	
Non-Labor		441	545	585	580	338	338	338	338	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>862</b>	<b>788</b>	<b>797</b>	<b>878</b>	<b>604</b>	<b>604</b>	<b>604</b>	<b>604</b>	
FTE		4.8	3.1	2.6	3.5	3.0	3.0	3.0	3.0	

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3317.000 - IT ACCOUNT MANAGEMENT

**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	7	0	8	0.00	1	7	0	8	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	265	331	0	596	3.01	265	331	0	596	3.01
<b>Total Incurred</b>	<b>266</b>	<b>338</b>	<b>0</b>	<b>604</b>	<b>3.01</b>	<b>266</b>	<b>338</b>	<b>0</b>	<b>604</b>	<b>3.01</b>
<b>% Allocation</b>										
Retained	41.65%	41.65%				38.08%	38.08%			
SEU	54.69%	54.69%				58.32%	58.32%			
CORP	3.66%	3.66%				3.60%	3.60%			
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	7	0	8	0.00	1	7	0	8	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	265	331	0	596	3.01	265	331	0	596	3.01
<b>Total Incurred</b>	<b>266</b>	<b>338</b>	<b>0</b>	<b>604</b>	<b>3.01</b>	<b>266</b>	<b>338</b>	<b>0</b>	<b>604</b>	<b>3.01</b>
<b>% Allocation</b>										
Retained	38.08%	38.08%				38.08%	38.08%			
SEU	58.32%	58.32%				58.32%	58.32%			
CORP	3.60%	3.60%				3.60%	3.60%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Cost Center: 2100-3317.000 - IT ACCOUNT MANAGEMENT

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3317.000 - IT ACCOUNT MANAGEMENT

**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	266	266	266	0	0	0	266	266	266
Non-Labor	Base YR Rec	338	338	338	0	0	0	338	338	338
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>604</b>	<b>604</b>	<b>604</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>604</b>	<b>604</b>	<b>604</b>
FTE	Base YR Rec	3.0	3.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Cost Center: 2100-3317.000 - IT ACCOUNT MANAGEMENT

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	333	196	178	255	230
Non-Labor	403	509	563	571	338
NSE	0	0	0	0	0
<b>Total</b>	<b>736</b>	<b>705</b>	<b>741</b>	<b>826</b>	<b>568</b>
FTE	4.1	2.6	2.2	3.0	2.6
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	333	196	178	255	230
Non-Labor	403	509	563	571	338
NSE	0	0	0	0	0
<b>Total</b>	<b>736</b>	<b>705</b>	<b>741</b>	<b>826</b>	<b>568</b>
FTE	4.1	2.6	2.2	3.0	2.6
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	51	31	26	37	36
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>51</b>	<b>31</b>	<b>26</b>	<b>37</b>	<b>36</b>
FTE	0.7	0.5	0.4	0.5	0.4
<b>Escalation to 2013\$</b>					
Labor	36	16	8	5	0
Non-Labor	38	36	22	10	0
NSE	0	0	0	0	0
<b>Total</b>	<b>75</b>	<b>52</b>	<b>30</b>	<b>15</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	420	244	212	297	266
Non-Labor	441	545	585	580	338
NSE	0	0	0	0	0
<b>Total</b>	<b>862</b>	<b>788</b>	<b>797</b>	<b>878</b>	<b>604</b>
FTE	4.8	3.1	2.6	3.5	3.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3317.000 - IT ACCOUNT MANAGEMENT

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3699.000 - SOLUTIONS ARCHITECTURE**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3699.000 - SOLUTIONS ARCHITECTURE

**Activity Description:**

Provide leadership in establishing policies, strategies, and architectural framework that help guide technology adoptions and alignment with the overall business. Develop awareness and statements of direction for emerging technology opportunities to enable key business strategies and goals.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		99	334	437	504	340	340	340	340	
Non-Labor		193	140	177	193	-40	-40	-40	-40	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>292</b>	<b>474</b>	<b>614</b>	<b>697</b>	<b>300</b>	<b>300</b>	<b>300</b>	<b>300</b>	
FTE		0.5	2.2	2.8	3.2	2.4	2.4	2.4	2.4	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3699.000 - SOLUTIONS ARCHITECTURE

**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	4	0	0	4	0.00	4	0	0	4	0.00
Directly Allocated	-5	-43	0	-48	-0.04	-5	-43	0	-48	-0.04
Subj. To % Alloc.	340	3	0	343	2.42	340	3	0	343	2.42
<b>Total Incurred</b>	<b>339</b>	<b>-40</b>	<b>0</b>	<b>299</b>	<b>2.38</b>	<b>339</b>	<b>-40</b>	<b>0</b>	<b>299</b>	<b>2.38</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
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	4	0	0	4	0.00	4	0	0	4	0.00
Directly Allocated	-5	-43	0	-48	-0.04	-5	-43	0	-48	-0.04
Subj. To % Alloc.	340	3	0	343	2.42	340	3	0	343	2.42
<b>Total Incurred</b>	<b>339</b>	<b>-40</b>	<b>0</b>	<b>299</b>	<b>2.38</b>	<b>339</b>	<b>-40</b>	<b>0</b>	<b>299</b>	<b>2.38</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.



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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Cost Center: 2100-3699.000 - SOLUTIONS ARCHITECTURE

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3699.000 - SOLUTIONS ARCHITECTURE

**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	340	340	340	0	0	0	340	340	340
Non-Labor	Base YR Rec	-40	-40	-40	0	0	0	-40	-40	-40
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>300</b>	<b>300</b>	<b>300</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>300</b>	<b>300</b>	<b>300</b>
FTE	Base YR Rec	2.4	2.4	2.4	0.0	0.0	0.0	2.4	2.4	2.4

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Cost Center: 2100-3699.000 - SOLUTIONS ARCHITECTURE

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	190	382	478	545	293
Non-Labor	183	137	177	196	-40
NSE	0	0	0	0	0
<b>Total</b>	<b>373</b>	<b>519</b>	<b>655</b>	<b>740</b>	<b>253</b>
FTE	1.4	2.9	3.4	3.8	2.0
<b>Adjustments (Nominal \$) **</b>					
Labor	-112	-113	-112	-112	0
Non-Labor	-6	-6	-6	-6	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-118</b>	<b>-119</b>	<b>-118</b>	<b>-118</b>	<b>0</b>
FTE	-1.0	-1.0	-1.0	-1.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	78	269	366	433	293
Non-Labor	177	131	171	190	-40
NSE	0	0	0	0	0
<b>Total</b>	<b>255</b>	<b>400</b>	<b>537</b>	<b>622</b>	<b>253</b>
FTE	0.4	1.9	2.4	2.8	2.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	12	43	54	63	46
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>12</b>	<b>43</b>	<b>54</b>	<b>63</b>	<b>46</b>
FTE	0.1	0.3	0.4	0.4	0.4
<b>Escalation to 2013\$</b>					
Labor	9	22	16	9	0
Non-Labor	17	9	7	3	0
NSE	0	0	0	0	0
<b>Total</b>	<b>25</b>	<b>31</b>	<b>23</b>	<b>12</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	99	334	437	504	340
Non-Labor	193	140	177	193	-40
NSE	0	0	0	0	0
<b>Total</b>	<b>292</b>	<b>474</b>	<b>614</b>	<b>697</b>	<b>300</b>
FTE	0.5	2.2	2.8	3.2	2.4

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3699.000 - SOLUTIONS ARCHITECTURE

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-112	-113	-112	-112	0
Non-Labor	-6	-6	-6	-6	0
NSE	0	0	0	0	0
<b>Total</b>	<b>-118</b>	<b>-119</b>	<b>-118</b>	<b>-118</b>	<b>0</b>
FTE	-1.0	-1.0	-1.0	-1.0	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	-112	-6	0	-1.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031145221250
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2009 Total</b>	<b>-112</b>	<b>-6</b>	<b>0</b>	<b>-1.0</b>			
2010	-112	-6	0	-1.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031145331483
IT Employee Transfer from SDGE to SCG as of 2013							
2010	-1	0	0	0.0	1-Sided Adj	N/A	TP1JMY20150526 135616453
Exclusion for Dynamic Pricing Refundable IOs per filing in Application 10-07-009.							
<b>2010 Total</b>	<b>-113</b>	<b>-6</b>	<b>0</b>	<b>-1.0</b>			
2011	-112	-6	0	-1.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031145423750
IT Employee Transfer from SDGE to SCG as of 2013							
<b>2011 Total</b>	<b>-112</b>	<b>-6</b>	<b>0</b>	<b>-1.0</b>			
2012	-112	-6	0	-1.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031145501217
IT Employee Transfer from SDGE to SCG as of 2013							

Note: Totals may include rounding differences.

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3699.000 - SOLUTIONS ARCHITECTURE

<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>2012 Total</b>	<b>-112</b>	<b>-6</b>	<b>0</b>	<b>-1.0</b>			
<b>2013 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>			

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3713.000 - FIELD FORCE PROGRAM DELIVERY TEAM**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3713.000 - FIELD FORCE PROGRAM DELIVERY TEAM

**Activity Description:**

This cost center includes costs related to the construction planning design program at SDGE.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**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		534	524	498	477	497	497	497	497	
Non-Labor		31	53	47	52	39	39	39	39	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>565</b>	<b>577</b>	<b>544</b>	<b>529</b>	<b>536</b>	<b>536</b>	<b>536</b>	<b>536</b>	
FTE		4.9	4.9	4.8	4.7	4.9	4.9	4.9	4.9	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3713.000 - FIELD FORCE PROGRAM DELIVERY TEAM

**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	0	0	0	0.00	0	0	0	0	0.00
Directly Allocated	25	2	0	27	0.18	25	2	0	27	0.18
Subj. To % Alloc.	472	37	0	509	4.77	472	37	0	509	4.77
<b>Total Incurred</b>	<b>497</b>	<b>39</b>	<b>0</b>	<b>536</b>	<b>4.95</b>	<b>497</b>	<b>39</b>	<b>0</b>	<b>536</b>	<b>4.95</b>
<b>% Allocation</b>										
Retained	36.00%	36.00%				36.00%	36.00%			
SEU	64.00%	64.00%				64.00%	64.00%			
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	25	2	0	27	0.18	25	2	0	27	0.18
Subj. To % Alloc.	472	37	0	509	4.77	472	37	0	509	4.77
<b>Total Incurred</b>	<b>497</b>	<b>39</b>	<b>0</b>	<b>536</b>	<b>4.95</b>	<b>497</b>	<b>39</b>	<b>0</b>	<b>536</b>	<b>4.95</b>
<b>% Allocation</b>										
Retained	36.00%	36.00%				36.00%	36.00%			
SEU	64.00%	64.00%				64.00%	64.00%			
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**

Capital Project Cost Allocation

**Cost Center Allocation Percentage for 2014**

Capital Project Cost Allocation

**Cost Center Allocation Percentage for 2015**

Capital Project Cost Allocation

**Cost Center Allocation Percentage for 2016**

Capital Project Cost Allocation

Note: Totals may include rounding differences.



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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3713.000 - FIELD FORCE PROGRAM DELIVERY TEAM

**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	497	497	497	0	0	0	497	497	497
Non-Labor	Base YR Rec	39	39	39	0	0	0	39	39	39
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>536</b>	<b>536</b>	<b>536</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>536</b>	<b>536</b>	<b>536</b>
FTE	Base YR Rec	4.9	4.9	4.9	0.0	0.0	0.0	4.9	4.9	4.9

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3713.000 - FIELD FORCE PROGRAM DELIVERY TEAM

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	23	22	17	9	29
Non-Labor	3	25	20	26	14
NSE	0	0	0	0	0
<b>Total</b>	<b>26</b>	<b>47</b>	<b>37</b>	<b>35</b>	<b>43</b>
FTE	0.2	0.2	0.1	0.1	0.2
<b>Adjustments (Nominal \$) **</b>					
Labor	400	400	400	400	400
Non-Labor	25	25	25	25	25
NSE	0	0	0	0	0
<b>Total</b>	<b>425</b>	<b>425</b>	<b>425</b>	<b>425</b>	<b>425</b>
FTE	4.0	4.0	4.0	4.0	4.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	423	422	417	409	429
Non-Labor	28	50	45	51	39
NSE	0	0	0	0	0
<b>Total</b>	<b>451</b>	<b>472</b>	<b>462</b>	<b>460</b>	<b>468</b>
FTE	4.2	4.2	4.1	4.1	4.2
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	65	67	61	59	68
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>65</b>	<b>67</b>	<b>61</b>	<b>59</b>	<b>68</b>
FTE	0.7	0.7	0.7	0.7	0.7
<b>Escalation to 2013\$</b>					
Labor	46	35	19	8	0
Non-Labor	3	4	2	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>49</b>	<b>38</b>	<b>20</b>	<b>9</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	534	524	498	477	497
Non-Labor	31	53	47	52	39
NSE	0	0	0	0	0
<b>Total</b>	<b>565</b>	<b>577</b>	<b>544</b>	<b>529</b>	<b>536</b>
FTE	4.9	4.9	4.8	4.8	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.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3713.000 - FIELD FORCE PROGRAM DELIVERY TEAM

**Summary of Adjustments to Recorded:**

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	400	400	400	400	400
Non-Labor	25	25	25	25	25
NSE	0	0	0	0	0
<b>Total</b>	<b>425</b>	<b>425</b>	<b>425</b>	<b>425</b>	<b>425</b>
FTE	4.0	4.0	4.0	4.0	4.0

**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	400	25	0	4.0	1-Sided Adj	N/A	LBROUGH201405 15161717867
Transfer of CPD costs from 11T003 to 2100-3713 as part of IT reorganization.							
<b>2009 Total</b>	<b>400</b>	<b>25</b>	<b>0</b>	<b>4.0</b>			
2010	400	25	0	4.0	1-Sided Adj	N/A	LBROUGH201405 15161934027
Transfer of CPD costs from 11T003 to 2100-3713 as part of IT reorganization.							
<b>2010 Total</b>	<b>400</b>	<b>25</b>	<b>0</b>	<b>4.0</b>			
2011	400	25	0	4.0	1-Sided Adj	N/A	LBROUGH201405 15162005270
Transfer of CPD costs from 11T003 to 2100-3713 as part of IT reorganization.							
<b>2011 Total</b>	<b>400</b>	<b>25</b>	<b>0</b>	<b>4.0</b>			
2012	400	25	0	4.0	1-Sided Adj	N/A	LBROUGH201405 15162033610
Transfer of CPD costs from 11T003 to 2100-3713 as part of IT reorganization.							
<b>2012 Total</b>	<b>400</b>	<b>25</b>	<b>0</b>	<b>4.0</b>			

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3713.000 - FIELD FORCE PROGRAM DELIVERY TEAM

<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	400	25	0	4.0	1-Sided Adj	N/A	LBROUGH201405 15162110987

Transfer of CPD costs from 1IT003 to 2100-3713 as part of IT reorganization.

<b>2013 Total</b>	<b>400</b>	<b>25</b>	<b>0</b>	<b>4.0</b>			
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*Note: Totals may include rounding differences.*

**Beginning of Workpaper  
2100-3733.000 - SVP & CITO**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3733.000 - SVP & CITO

**Activity Description:**

The SVP and CITO cost center contains the Officer, his support staff, and related expenses necessary to manage the entire IT organization.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		272	393	382	435	393	393	393	393	
Non-Labor		70	63	83	208	244	244	244	244	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>342</b>	<b>455</b>	<b>466</b>	<b>643</b>	<b>637</b>	<b>637</b>	<b>637</b>	<b>637</b>	
FTE		0.8	1.4	1.5	2.0	1.4	1.4	1.4	1.4	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3733.000 - SVP & CITO

**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	3	0	3	0.00	0	3	0	3	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	393	242	0	635	1.38	393	242	0	635	1.38
<b>Total Incurred</b>	<b>393</b>	<b>245</b>	<b>0</b>	<b>638</b>	<b>1.38</b>	<b>393</b>	<b>245</b>	<b>0</b>	<b>638</b>	<b>1.38</b>
<b>% Allocation</b>										
Retained	66.55%	66.55%				47.29%	47.29%			
SEU	30.96%	30.96%				49.49%	49.49%			
CORP	2.27%	2.27%				2.92%	2.92%			
Unreg	0.22%	0.22%				0.30%	0.30%			

	2015 Adjusted-Forecast					2016 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	3	0	3	0.00	0	3	0	3	0.00
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	393	242	0	635	1.38	393	242	0	635	1.38
<b>Total Incurred</b>	<b>393</b>	<b>245</b>	<b>0</b>	<b>638</b>	<b>1.38</b>	<b>393</b>	<b>245</b>	<b>0</b>	<b>638</b>	<b>1.38</b>
<b>% Allocation</b>										
Retained	47.29%	47.29%				47.29%	47.29%			
SEU	49.49%	49.49%				49.49%	49.49%			
CORP	2.92%	2.92%				2.92%	2.92%			
Unreg	0.30%	0.30%				0.30%	0.30%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Cost Center: 2100-3733.000 - SVP & CITO

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

**Cost Center Allocation Percentage for 2013**

The SVP cost center supports all cost centers within the organization so a weighted average was used in determining the allocation percentages. A weighted average of all cost centers against 2013 actual spend was used to calculate the percentages for this cost center.

**Cost Center Allocation Percentage for 2014**

The SVP cost center supports all cost centers within the organization so a weighted average was used in determining the allocation percentages. A weighted average of all cost centers in the new 2014 CITO organization against 2013 actual spend was used to calculate the percentages for this cost center.

**Cost Center Allocation Percentage for 2015**

The SVP cost center supports all cost centers within the organization so a weighted average was used in determining the allocation percentages. A weighted average of all cost centers in the new 2014 CITO organization against 2013 actual spend was used to calculate the percentages for this cost center.

**Cost Center Allocation Percentage for 2016**

The SVP cost center supports all cost centers within the organization so a weighted average was used in determining the allocation percentages. A weighted average of all cost centers in the new 2014 CITO organization against 2013 actual spend was used to calculate the percentages for this cost center.

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3733.000 - SVP & CITO

**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	393	393	393	0	0	0	393	393	393
Non-Labor	Base YR Rec	244	244	244	0	0	0	244	244	244
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>637</b>	<b>637</b>	<b>637</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>637</b>	<b>637</b>	<b>637</b>
FTE	Base YR Rec	1.4	1.4	1.4	0.0	0.0	0.0	1.4	1.4	1.4

**Forecast Adjustment Details:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Cost Center: 2100-3733.000 - SVP & CITO

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	215	316	321	373	339
Non-Labor	64	59	80	204	244
NSE	0	0	0	0	0
<b>Total</b>	<b>279</b>	<b>375</b>	<b>401</b>	<b>578</b>	<b>583</b>
FTE	0.7	1.2	1.3	1.7	1.2
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	215	316	321	373	339
Non-Labor	64	59	80	204	244
NSE	0	0	0	0	0
<b>Total</b>	<b>279</b>	<b>375</b>	<b>401</b>	<b>578</b>	<b>583</b>
FTE	0.7	1.2	1.3	1.7	1.2
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	33	50	47	54	54
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>33</b>	<b>50</b>	<b>47</b>	<b>54</b>	<b>54</b>
FTE	0.1	0.2	0.2	0.3	0.2
<b>Escalation to 2013\$</b>					
Labor	24	26	14	7	0
Non-Labor	6	4	3	4	0
NSE	0	0	0	0	0
<b>Total</b>	<b>30</b>	<b>30</b>	<b>17</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	272	393	382	435	393
Non-Labor	70	63	83	208	244
NSE	0	0	0	0	0
<b>Total</b>	<b>342</b>	<b>455</b>	<b>466</b>	<b>643</b>	<b>637</b>
FTE	0.8	1.4	1.5	2.0	1.4

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3733.000 - SVP & CITO

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3762.000 - IT ENTERPRISE TRAINING AND CC**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3762.000 - IT ENTERPRISE TRAINING AND CC

**Activity Description:**

This cost center includes the labor and non labor related to the IT Enterprise Training programs

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	178	102	108	131	131	131	131	
Non-Labor		1	23	22	48	44	44	44	44	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>1</b>	<b>201</b>	<b>124</b>	<b>156</b>	<b>174</b>	<b>174</b>	<b>174</b>	<b>174</b>	
FTE		0.0	1.6	1.2	0.9	1.0	1.0	1.0	1.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3762.000 - IT ENTERPRISE TRAINING AND CC

**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	0	0	0	0.00	0	0	0	0	0.00
Directly Allocated	59	0	0	59	0.45	59	0	0	59	0.45
Subj. To % Alloc.	72	43	0	115	0.57	72	43	0	115	0.57
<b>Total Incurred</b>	<b>131</b>	<b>43</b>	<b>0</b>	<b>174</b>	<b>1.02</b>	<b>131</b>	<b>43</b>	<b>0</b>	<b>174</b>	<b>1.02</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
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	59	0	0	59	0.45	59	0	0	59	0.45
Subj. To % Alloc.	72	43	0	115	0.57	72	43	0	115	0.57
<b>Total Incurred</b>	<b>131</b>	<b>43</b>	<b>0</b>	<b>174</b>	<b>1.02</b>	<b>131</b>	<b>43</b>	<b>0</b>	<b>174</b>	<b>1.02</b>
<b>% Allocation</b>										
Retained	41.64%	41.64%				41.64%	41.64%			
SEU	54.70%	54.70%				54.70%	54.70%			
CORP	3.66%	3.66%				3.66%	3.66%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Cost Center: 2100-3762.000 - IT ENTERPRISE TRAINING AND CC

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

**Cost Center Allocation Percentage for 2013**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2014**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2015**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

**Cost Center Allocation Percentage for 2016**

Calculations are based on the number of LAN IDs used across each utility and Parent (corporate center). The use of LAN IDs is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3762.000 - IT ENTERPRISE TRAINING AND CC

**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	131	131	131	0	0	0	131	131	131
Non-Labor	Base YR Rec	44	44	44	0	0	0	44	44	44
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>174</b>	<b>174</b>	<b>174</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>174</b>	<b>174</b>	<b>174</b>
FTE	Base YR Rec	1.0	1.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*



San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3762.000 - IT ENTERPRISE TRAINING AND CC

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	143	85	93	113
Non-Labor	1	22	22	47	44
NSE	0	0	0	0	0
<b>Total</b>	<b>1</b>	<b>165</b>	<b>107</b>	<b>140</b>	<b>156</b>
FTE	0.0	1.3	1.0	0.8	0.9
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	143	85	93	113
Non-Labor	1	22	22	47	44
NSE	0	0	0	0	0
<b>Total</b>	<b>1</b>	<b>165</b>	<b>107</b>	<b>140</b>	<b>156</b>
FTE	0.0	1.3	1.0	0.8	0.9
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	23	13	13	18
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>23</b>	<b>13</b>	<b>13</b>	<b>18</b>
FTE	0.0	0.2	0.2	0.1	0.2
<b>Escalation to 2013\$</b>					
Labor	0	12	4	2	0
Non-Labor	0	2	1	1	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>13</b>	<b>5</b>	<b>3</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	178	102	108	131
Non-Labor	1	23	22	48	44
NSE	0	0	0	0	0
<b>Total</b>	<b>1</b>	<b>201</b>	<b>124</b>	<b>156</b>	<b>174</b>
FTE	0.0	1.5	1.2	0.9	1.1

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3762.000 - IT ENTERPRISE TRAINING AND CC

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

**Beginning of Workpaper**  
**2100-3807.000 - ENTERPRISE FINANCIAL & OPS SOLUTION**

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3807.000 - ENTERPRISE FINANCIAL & OPS SOLUTION

**Activity Description:**

This cost center includes the costs related to the enterprise financial and operational solutions work, including Construction Planning and Design activities.

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	6	184	181	7	121	121	121	
Non-Labor		0	0	67	249	561	412	412	412	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>7</b>	<b>250</b>	<b>430</b>	<b>568</b>	<b>533</b>	<b>533</b>	<b>533</b>	
FTE		0.0	0.1	1.8	1.5	0.0	1.0	1.0	1.0	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3807.000 - ENTERPRISE FINANCIAL & OPS SOLUTION

**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	0	0	2	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.	5	561	0	566	0.03	121	412	0	533	1.03
<b>Total Incurred</b>	<b>7</b>	<b>561</b>	<b>0</b>	<b>568</b>	<b>0.03</b>	<b>121</b>	<b>412</b>	<b>0</b>	<b>533</b>	<b>1.03</b>
<b>% Allocation</b>										
Retained	48.00%	48.00%				48.00%	48.00%			
SEU	52.00%	52.00%				52.00%	52.00%			
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.	121	412	0	533	1.03	121	412	0	533	1.03
<b>Total Incurred</b>	<b>121</b>	<b>412</b>	<b>0</b>	<b>533</b>	<b>1.03</b>	<b>121</b>	<b>412</b>	<b>0</b>	<b>533</b>	<b>1.03</b>
<b>% Allocation</b>										
Retained	48.00%	48.00%				48.00%	48.00%			
SEU	52.00%	52.00%				52.00%	52.00%			
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**

Capital Project Cost Allocation

**Cost Center Allocation Percentage for 2014**

Capital Project Cost Allocation

**Cost Center Allocation Percentage for 2015**

Capital Project Cost Allocation

**Cost Center Allocation Percentage for 2016**

Capital Project Cost Allocation

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3807.000 - ENTERPRISE FINANCIAL & OPS SOLUTION

**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	7	7	7	114	114	114	121	121	121
Non-Labor	Base YR Rec	561	561	561	-149	-149	-149	412	412	412
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>568</b>	<b>568</b>	<b>568</b>	<b>-35</b>	<b>-35</b>	<b>-35</b>	<b>533</b>	<b>533</b>	<b>533</b>
FTE	Base YR Rec	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0

**Forecast Adjustment Details:**

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>
2014	116	-149	0	-33	1.0	1-Sided Adj
Reductions due to CPD cost center consolidation (see SCG WP-18, workgroup 2IT003)						
2014	-2	0	0	-2	0.0	1-Sided Adj
Reductions due to CPD cost center consolidation (see SCG WP-18, workgroup 2IT003)						
<b>2014 Total</b>	<b>114</b>	<b>-149</b>	<b>0</b>	<b>-35</b>	<b>1.0</b>	
2015	116	-149	0	-33	1.0	1-Sided Adj
Reductions due to CPD cost center consolidation (see SCG WP-18, workgroup 2IT003)						
2015	-2	0	0	-2	0.0	1-Sided Adj
Reductions due to CPD cost center consolidation (see SCG WP-18, workgroup 2IT003)						
<b>2015 Total</b>	<b>114</b>	<b>-149</b>	<b>0</b>	<b>-35</b>	<b>1.0</b>	
2016	116	-149	0	-33	1.0	1-Sided Adj
Reductions due to CPD cost center consolidation (see SCG WP-18, workgroup 2IT003)						
2016	-2	0	0	-2	0.0	1-Sided Adj
Reductions due to CPD cost center consolidation (see SCG WP-18, workgroup 2IT003)						
<b>2016 Total</b>	<b>114</b>	<b>-149</b>	<b>0</b>	<b>-35</b>	<b>1.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Cost Center: 2100-3807.000 - ENTERPRISE FINANCIAL & OPS SOLUTION

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	5	154	155	6
Non-Labor	0	0	64	245	561
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>5</b>	<b>218</b>	<b>400</b>	<b>568</b>
FTE	0.0	0.1	1.5	1.3	0.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	5	154	155	6
Non-Labor	0	0	64	245	561
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>5</b>	<b>218</b>	<b>400</b>	<b>568</b>
FTE	0.0	0.1	1.5	1.3	0.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	1	23	23	1
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>1</b>	<b>23</b>	<b>23</b>	<b>1</b>
FTE	0.0	0.0	0.3	0.2	0.0
<b>Escalation to 2013\$</b>					
Labor	0	0	7	3	0
Non-Labor	0	0	2	4	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>9</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	0	6	184	181	7
Non-Labor	0	0	67	249	561
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>7</b>	<b>250</b>	<b>430</b>	<b>568</b>
FTE	0.0	0.1	1.8	1.5	0.0

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

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3807.000 - ENTERPRISE FINANCIAL & OPS SOLUTION

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*



**Beginning of Workpaper**  
**2100-3842.000 - IT ASSOCIATE PROGRAM**

San Diego Gas & Electric Company  
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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3842.000 - IT ASSOCIATE PROGRAM

**Activity Description:**

This cost center provides 2 unique services - (1) The IT Associate Program provides a structured environment for new IT employees to become familiar with the SEu IT division's activities and systems, and perform related assignments by rotating among various SEu IT departments; (2) SEu IT Summer Intern Program

**Forecast Explanations:**

**Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**Non-Labor - Base YR Rec**

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as a result of either internal organizational changes, transfers of responsibilities, or shifting of cost drivers from one area of the IT department to another.

**NSE - Base YR Rec**

NA

**Summary of Results:**

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
Labor		0	0	0	139	1,007	1,007	1,007	1,007	
Non-Labor		0	0	0	12	12	12	12	12	
NSE		0	0	0	0	0	0	0	0	
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>152</b>	<b>1,019</b>	<b>1,019</b>	<b>1,019</b>	<b>1,019</b>	
FTE		0.0	0.0	0.0	2.3	13.0	13.0	13.0	13.0	

*Note: Totals may include rounding differences.*

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Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3842.000 - IT ASSOCIATE 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	9	0	0	9	0.07	9	0	0	9	0.07
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	998	12	0	1,010	12.92	998	12	0	1,010	12.92
<b>Total Incurred</b>	<b>1,007</b>	<b>12</b>	<b>0</b>	<b>1,019</b>	<b>12.99</b>	<b>1,007</b>	<b>12</b>	<b>0</b>	<b>1,019</b>	<b>12.99</b>
<b>% Allocation</b>										
Retained	43.22%	43.22%				43.22%	43.22%			
SEU	56.78%	56.78%				56.78%	56.78%			
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	9	0	0	9	0.07	9	0	0	9	0.07
Directly Allocated	0	0	0	0	0.00	0	0	0	0	0.00
Subj. To % Alloc.	998	12	0	1,010	12.92	998	12	0	1,010	12.92
<b>Total Incurred</b>	<b>1,007</b>	<b>12</b>	<b>0</b>	<b>1,019</b>	<b>12.99</b>	<b>1,007</b>	<b>12</b>	<b>0</b>	<b>1,019</b>	<b>12.99</b>
<b>% Allocation</b>										
Retained	43.22%	43.22%				43.22%	43.22%			
SEU	56.78%	56.78%				56.78%	56.78%			
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: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits  
Category: D. IT Support  
Category-Sub: 1. IT Support  
Cost Center: 2100-3842.000 - IT ASSOCIATE PROGRAM

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

**Cost Center Allocation Percentage for 2013**

Costs will be allocated based on employees with LAN access @ SDG&E & SCG. The allocations are supported by the rationale that the 2 sub-groups in this cost center provide services to all IT organizations at SEu. Further, since the support provided by this group touches all IT systems and , in turn, all employees within SEu, with LAN access, will benefit from the services.

**Cost Center Allocation Percentage for 2014**

Costs will be allocated based on employees with LAN access @ SDG&E & SCG. The allocations are supported by the rationale that the 2 sub-groups in this cost center provide services to all IT organizations at SEu. Further, since the support provided by this group touches all IT systems and , in turn, all employees within SEu, with LAN access, will benefit from the services.

**Cost Center Allocation Percentage for 2015**

Costs will be allocated based on employees with LAN access @ SDG&E & SCG. The allocations are supported by the rationale that the 2 sub-groups in this cost center provide services to all IT organizations at SEu. Further, since the support provided by this group touches all IT systems and , in turn, all employees within SEu, with LAN access, will benefit from the services.

**Cost Center Allocation Percentage for 2016**

Costs will be allocated based on employees with LAN access @ SDG&E & SCG. The allocations are supported by the rationale that the 2 sub-groups in this cost center provide services to all IT organizations at SEu. Further, since the support provided by this group touches all IT systems and , in turn, all employees within SEu, with LAN access, will benefit from the services.

*Note: Totals may include rounding differences.*

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 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3842.000 - IT ASSOCIATE 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	1,007	1,007	1,007	0	0	0	1,007	1,007	1,007
Non-Labor	Base YR Rec	12	12	12	0	0	0	12	12	12
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>1,019</b>	<b>1,019</b>	<b>1,019</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,019</b>	<b>1,019</b>	<b>1,019</b>
FTE	Base YR Rec	13.0	13.0	13.0	0.0	0.0	0.0	13.0	13.0	13.0

**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>
<b>2014 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2015 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	
<b>2016 Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
2016 GRC - REVISED  
Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3842.000 - IT ASSOCIATE PROGRAM

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

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
<b>Recorded (Nominal \$)*</b>					
Labor	0	0	0	120	869
Non-Labor	0	0	0	12	12
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>132</b>	<b>881</b>
FTE	0.0	0.0	0.0	2.0	11.0
<b>Adjustments (Nominal \$) **</b>					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Nominal \$)</b>					
Labor	0	0	0	120	869
Non-Labor	0	0	0	12	12
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>132</b>	<b>881</b>
FTE	0.0	0.0	0.0	2.0	11.0
<b>Vacation &amp; Sick (Nominal \$)</b>					
Labor	0	0	0	17	138
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>138</b>
FTE	0.0	0.0	0.0	0.3	1.9
<b>Escalation to 2013\$</b>					
Labor	0	0	0	2	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>
FTE	0.0	0.0	0.0	0.0	0.0
<b>Recorded-Adjusted (Constant 2013\$)</b>					
Labor	0	0	0	139	1,007
Non-Labor	0	0	0	12	12
NSE	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>152</b>	<b>1,019</b>
FTE	0.0	0.0	0.0	2.3	12.9

\* 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.

San Diego Gas & Electric Company  
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Shared Services Workpapers

Area: INFORMATION TECHNOLOGY  
 Witness: Stephen J. Mikovits  
 Category: D. IT Support  
 Category-Sub: 1. IT Support  
 Cost Center: 2100-3842.000 - IT ASSOCIATE PROGRAM

**Summary of Adjustments to Recorded:**

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

**Detail of Adjustments to Recorded:**

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

*Note: Totals may include rounding differences.*

San Diego Gas & Electric Company  
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Non-Shared Service Workpapers

Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits

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

<b>Cost Center</b>	<b>Sub</b>	<b>Description</b>
2100-0027	000	DIRECTOR CUSTOMER SERVICE & STAFF
2100-0121	000	ESS MOB HDWR & APPS
2100-0460	000	IT LVC FOR BUDGET USE ONLY
2100-0642	000	CUSTOMER OPERATIONS TECHNOLOGY MANAGER
2100-3070	000	CLIENT SERVICES & ENTERPRISE SUPPORT DIR
2100-3078	000	CUSTOMER CARE SYSTEMS DIRECTOR
2100-3081	000	CUSTOMER SYSTEMS SERVICE INTEGRATION
2100-3084	000	SDGE CUSTOMER CARE PROJECT OFFICE
2100-3085	000	SDGE METER DATA AND CUSTOMER FIELD
2100-3094	000	SOFTWARE DEV - FIELD OPS (SD)
2100-3172	000	IT INVENTORY
2100-3315	000	PROCESS IMPROVEMENT
2100-3339	000	IT CSC DEPOT
2100-3535	000	ESS PROD SUPPORT
2100-3624	000	SDGE IT METERING SYS & DISTRIBUTION
2100-3627	000	CST - SD PROJECTS
2100-3634	000	NETWORK/TELECOM SERVICES -ADMINISTRATION
2100-3638	000	OPEX 20/20 FIELD FORCE INITIATIVES
2100-3644	000	OPEX ASSET MANAGEMENT GIS
2100-3645	000	OPEX 20/20 IT INFRASTRUCTURE
2100-3646	000	CUSTOMER CARE ICE INTERACTIONS
2100-3647	000	PROJECT MANAGEMENT OFFICE FOR OPEX 20/20
2100-3648	000	FIELD WMS - MAINTENANCE AND INSPECTION
2100-3649	000	FIELD MOBILE- MAINTENANCE AND INSPECTION
2100-3650	000	FIELD PLANNING AND SCHEDULE
2100-3653	000	OPEX 20/20 ASSET MANAGEMENT ETC
2100-3669	000	ESS IMPLEMT SUPPORT
2100-3671	000	IT BUSINESS TECHNOLOGISTS
2100-3677	000	FIELD FORCE - SUPERVISOR ENABLEMENT
2100-3686	000	PMO EDUCATION TRAINING & COMMUNICATION
2100-3687	000	OPEX ASSET MANAGEMENT AIS
2100-3688	000	OPEX 20/20 SMART GRID OMS/DMS
2100-3689	000	OPEX 20/20 SMART GRID CBM
2100-3690	000	CUSTOMER CARE ICE SELF SERVICE
2100-3691	000	CUSTOMER OPERATIONAL INSIGHT ANALYTICS
2100-3692	000	CUSTOMER SINGLE VIEW OF THE CUSTOMER
2100-3693	000	CUSTOMER CARE REP OF THE FUTURE
2100-3696	000	DIRECTOR - PROGRAM DELIVERY TEAM
2100-3697	000	OPEX 20/20 IT PROGRAM MANAGEMENT
2100-3700	000	SMART METER IT PROGRAM MANAGEMENT
2100-3724	000	UTILITY PLANNING - SDG&E
2100-3732	000	CST - PACER 2
2100-3757	000	FIELD FORCE DEPLOYMENT
2100-3758	000	FIELD FORCE TESTING
2100-3759	000	FIELD FORCE ETC



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Area: INFORMATION TECHNOLOGY  
Witness: Stephen J. Mikovits

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

<b>Cost Center</b>	<b>Sub</b>	<b>Description</b>
2100-3760	000	SCG AMI-IT
2100-3772	000	ESS MOBILE APPS
2100-3803	000	DYNAMIC PRICING SYSTEMS
2100-3804	000	SCG AMI SYSTEMS MANAGEMENT
2100-3816	000	SDGE APPS SVCS
2100-3819	000	ESS PRODUCTION SUPPORT SDGE
2100-3820	000	CCS Delivery - SDGE
2100-3823	000	SDGE APPL PROG OFF
2100-3829	000	ESS MOBILE APPS
2100-3837	000	CUSTOMER OPERATIONS TECHNOLOGY
2100-3840	000	IT REGULATORY COMPLIANCE
2100-3849	000	TRANSPORT INFRASTRUCTURE
2100-3886	000	SDG&E SYST INTEGRA
2100-3887	000	SDG&E APPS CONTRACTS
2100-3901	000	CAP & Business Optimization
2100-3910	000	CAPITAL & BUSINESS OPTIMIZATION
2100-3915	000	UTILITY OPS/FINCL CONTRACTS-SDGE
2100-3917	000	SDGE COMPUCOM CONTRACT SERVICE
2100-3920	000	COMPUTING INFRASTRUCTURE CONTRACTS - NSS
2100-3935	000	IT QUALITY ASSURANCE
2100-4025	000	GRID COMMUNICATIONS PMO