

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)

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

MARCH 2015



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

Exhibit SDG&E-19-WP-R - INFORMATION TECHNOLOGY

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

Area:	INFORMATION TECHNOLOGY
Witness:	Stephen J. Mikovits

Description	In 2013 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Non-Shared Services	14,445	16,207	15,898	18,702
Shared Services	76,102	75,435	82,439	91,002
Total	90,547	91,642	98,337	109,704

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	12,993	13,672	14,863	17,667
B. Infrastructure	224	224	224	224
C. Information Security	159	159	159	159
D. IT Support	1,069	2,152	652	652
Total	14,445	16,207	15,898	18,702

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	8,728	8,828	9,762	10,795
Non-Labor	4,265	4,844	5,101	6,872
NSE	0	0	0	0
Total	12,993	13,672	14,863	17,667
FTE	90.9	91.9	101.2	111.5

Workpapers belonging to this Category:

1IT001.000 IT Applications NSS

Labor	8,728	8,828	9,762	10,795
Non-Labor	4,265	4,844	5,101	6,872
NSE	0	0	0	0
Total	12,993	13,672	14,863	17,667
FTE	90.9	91.9	101.2	111.5

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	7,044	6,549	8,225	8,728	8,828	9,762	10,795	
Non-Labor		2,268	2,103	2,159	2,676	4,265	4,844	5,101	6,872	
NSE		0	0	0	0	0	0	0	0	
Total		9,510	9,147	8,708	10,901	12,993	13,672	14,863	17,667	
FTE		76.3	75.6	72.2	90.2	90.9	91.9	101.2	111.5	

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	8,728	8,728	8,728	100	1,034	2,067	8,828	9,762	10,795
Non-Labor	Base YR Rec	4,265	4,265	4,265	579	836	2,607	4,844	5,101	6,872
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		12,993	12,993	12,993	679	1,870	4,674	13,672	14,863	17,667
FTE	Base YR Rec	90.9	90.9	90.9	1.0	10.3	20.6	91.9	101.2	111.5

Forecast Adjustment Details:

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

2014 Total	100	579	0	679	1.0	
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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.

2015 Total	1,034	836	0	1,870	10.3	
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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>Adi Type</u>
<p>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.</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&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 & 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).</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&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&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 & 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.

2016 Total	2,067	2,607	0	4,674	20.6	
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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)
Recorded (Nominal \$)*					
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
Total	7,556	7,388	7,654	9,748	11,799
FTE	62.5	62.0	62.9	79.0	77.4
Adjustments (Nominal \$) **					
Labor	269	257	-97	-75	0
Non-Labor	5	15	5	-6	0
NSE	0	0	0	0	0
Total	274	272	-92	-81	0
FTE	2.9	2.5	-0.9	-1.3	0.0
Recorded-Adjusted (Nominal \$)					
Labor	5,778	5,714	5,484	7,032	7,534
Non-Labor	2,052	1,946	2,078	2,635	4,265
NSE	0	0	0	0	0
Total	7,829	7,660	7,562	9,667	11,799
FTE	65.4	64.5	62.0	77.7	77.4
Vacation & Sick (Nominal \$)					
Labor	892	910	808	1,019	1,195
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	892	910	808	1,019	1,195
FTE	10.9	11.2	10.2	12.6	13.6
Escalation to 2013\$					
Labor	573	420	257	174	0
Non-Labor	216	157	81	42	0
NSE	0	0	0	0	0
Total	789	577	338	215	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	7,243	7,044	6,549	8,225	8,728
Non-Labor	2,268	2,103	2,159	2,676	4,265
NSE	0	0	0	0	0
Total	9,510	9,147	8,708	10,901	12,993
FTE	76.3	75.7	72.2	90.3	91.0

* 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
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	257	-97	-75	0
Non-Labor	5	15	5	-6	0
NSE	0	0	0	0	0
Total	274	272	-92	-81	0
FTE	2.9	2.5	-0.9	-1.3	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	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 100007 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 100007 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							
2009 Total	269	5	0	2.9			

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 100007 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 Total	257	15	0	2.5			

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 Total	-97	5	0	-0.9			

2012	-35	-3	0	-0.4	1-Sided Adj	N/A	LBROUGH201311 05164848587
IT employee transfer from SDGE to SCG, 2IT001							

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>
2012	-40	-3	0	-0.9	1-Sided Adj	N/A	LBROUGH201311 05165048623

IT employee transfer from SDGE to SCG, 2200-2496

2012 Total	-75	-6	0	-1.3			
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2013 Total	0	0	0	0.0			
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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: 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
Total	224	224	224	224
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
Total	224	224	224	224
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 Infrastructure 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	
Total		809	50	53	350	224	224	224	224	
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
Total		224	224	224	0	0	0	224	224	224
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	0	0	0	0	0.0	

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: 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)
Recorded (Nominal \$)*					
Labor	727	146	157	397	192
Non-Labor	38	11	3	20	1
NSE	0	0	0	0	0
Total	765	156	160	417	193
FTE	9.2	1.6	1.5	3.4	1.8
Adjustments (Nominal \$) **					
Labor	-112	-112	-112	-112	0
Non-Labor	-3	-3	-3	-3	0
NSE	0	0	0	0	0
Total	-115	-115	-115	-115	0
FTE	-0.8	-0.8	-0.8	-0.8	0.0
Recorded-Adjusted (Nominal \$)					
Labor	614	34	44	284	192
Non-Labor	35	8	0	17	1
NSE	0	0	0	0	0
Total	650	41	44	302	193
FTE	8.4	0.8	0.7	2.6	1.8
Vacation & Sick (Nominal \$)					
Labor	95	5	7	41	31
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	95	5	7	41	31
FTE	1.4	0.1	0.1	0.4	0.3
Escalation to 2013\$					
Labor	61	2	2	7	0
Non-Labor	4	1	0	0	0
NSE	0	0	0	0	0
Total	65	3	2	7	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	770	41	53	333	223
Non-Labor	39	8	0	18	1
NSE	0	0	0	0	0
Total	809	50	53	350	224
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
Total	-115	-115	-115	-115	0
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.							
2009 Total	-112	-3	0	-0.8			
2010	-112	-3	0	-0.8	1-Sided Adj	N/A	LBROUGH201311 06090518323
IT employee xfers from SDGE to SCG 2IT002.							
2010 Total	-112	-3	0	-0.8			
2011	-112	-3	0	-0.8	1-Sided Adj	N/A	LBROUGH201311 06090600670
IT employee xfers from SDGE to SCG 2IT002.							
2011 Total	-112	-3	0	-0.8			
2012	-112	-3	0	-0.8	1-Sided Adj	N/A	LBROUGH201311 06090648600
IT employee xfers from SDGE to SCG 2IT002.							
2012 Total	-112	-3	0	-0.8			

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>
2013 Total	0	0	0	0.0			

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: 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
Total	<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
Total	<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	
Total		0	0	0	218	159	159	159	159	
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
Total		159	159	159	0	0	0	159	159	159
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	0	0	0	0	0.0	

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

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
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
Total	1,069	2,152	652	652
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
Total	1,069	2,152	652	652
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	2,067	1,186	523	385	468	468	468		
Non-Labor	2,358	2,565	2,310	2,722	684	1,684	184	184		
NSE	0	0	0	0	0	0	0	0		
Total	4,285	4,632	3,496	3,245	1,069	2,152	652	652		
FTE	19.4	25.3	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
Total		1,069	1,069	1,069	1,083	-417	-417	2,152	652	652
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.

2014 Total	83	1,000	0	1,083	0.0	
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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.

2015 Total	83	-500	0	-417	0.0	
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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>
2016 Total	83	-500	0	-417	0.0	

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

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
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
Total	2,670	6,745	1,778	11,511	3,279
FTE	20.6	25.6	14.9	14.7	14.8
Adjustments (Nominal \$) **					
Labor	-495	-495	-561	-1,073	-1,277
Non-Labor	1,496	-2,199	2,000	-7,311	-985
NSE	0	0	0	0	0
Total	1,001	-2,694	1,439	-8,384	-2,262
FTE	-4.0	-4.0	-4.9	-10.5	-12.3
Recorded-Adjusted (Nominal \$)					
Labor	1,537	1,677	993	447	332
Non-Labor	2,134	2,374	2,224	2,680	684
NSE	0	0	0	0	0
Total	3,671	4,051	3,216	3,127	1,017
FTE	16.6	21.6	10.0	4.2	2.5
Vacation & Sick (Nominal \$)					
Labor	237	267	146	65	53
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	237	267	146	65	53
FTE	2.8	3.7	1.6	0.7	0.4
Escalation to 2013\$					
Labor	152	123	47	11	0
Non-Labor	224	191	86	43	0
NSE	0	0	0	0	0
Total	377	315	133	54	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	1,927	2,067	1,186	523	385
Non-Labor	2,358	2,565	2,310	2,722	684
NSE	0	0	0	0	0
Total	4,285	4,632	3,496	3,245	1,069
FTE	19.4	25.3	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	-495	-561	-1,073	-1,277
Non-Labor	1,496	-2,199	2,000	-7,311	-985
NSE	0	0	0	0	0
Total	1,001	-2,694	1,439	-8,384	-2,262
FTE	-4.0	-4.0	-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.							
2009 Total	-495	1,496	0	-4.0			
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 Total	-495	-2,199	0	-4.0			

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

<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	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.							
2011 Total	-561	2,000	0	-4.9			
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.							
2012 Total	-1,073	-7,311	0	-10.5			
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)							
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)							

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	-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.

2013 Total	-1,277	-985	0	-12.3			
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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

Summary of Shared Services Workpapers:

Description	In 2013 \$ (000) Incurred Costs			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
A. Applications	18,591	18,779	20,486	24,998
B. Infrastructure	48,614	47,361	51,295	55,048
C. Information Security	3,589	3,952	5,315	5,613
D. IT Support	5,308	5,343	5,343	5,343
Total	76,102	75,435	82,439	91,002

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	8,665	8,665	9,290	9,916
Non-Labor	9,924	10,112	11,194	15,080
NSE	0	0	0	0
Total	18,589	18,777	20,484	24,996
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
Total	1,293	1,293	1,293	1,293
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
Total	908	908	908	908
FTE	5.6	5.6	5.6	5.6

2100-3073.000 ENTERPRISE INTEGRATION SERVICES

Labor	777	777	777	777
Non-Labor	168	168	168	168
NSE	0	0	0	0
Total	945	945	945	945
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
Total	291	291	291	291
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
Total	1,324	1,324	1,324	1,324
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
Total	63	63	63	63
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
Total	18	18	18	18
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
Total	50	50	50	50
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
Total	-2	-2	-2	-2
FTE	0.0	0.0	0.0	0.0

2100-3086.000 CUSTOMER ASSISTANCE AND RELATIONSHIP

Labor	488	488	488	488
Non-Labor	365	365	365	365
NSE	0	0	0	0
Total	853	853	853	853
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
Total	402	402	613	824
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
Total	188	188	188	188
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
Total	993	993	993	993
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
Total	4,368	4,556	4,982	6,051
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
Total	1,015	1,015	1,015	1,015
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
Total	287	287	705	1,124
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
Total	4,954	4,954	5,350	8,092
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
Total	6	6	6	6
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
Total	6	6	6	6
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
Total	130	130	130	130
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
Total	18	18	18	18
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
Total	479	479	735	806
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	
Total		1,416	1,101	926	1,201	1,293	1,293	1,293	1,293	
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
Total Incurred	1,220	74	0	1,294	11.10	1,220	74	0	1,294	11.09
% Allocation										
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
Total Incurred	1,220	74	0	1,294	11.09	1,220	74	0	1,294	11.09
% Allocation										
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
Total		1,293	1,293	1,293	0	0	0	1,293	1,293	1,293
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3071.000 - SAP ACCOUNTING & FINANCIAL SYSTEMS

Determination of Adjusted-Recorded (Incurred Costs):

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

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	
Total		965	1,079	676	1,175	908	908	908	908	
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
Total Incurred	606	303	0	909	5.62	606	303	0	909	5.63
% Allocation										
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
Total Incurred	606	303	0	909	5.63	606	303	0	909	5.63
% Allocation										
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.

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Area: INFORMATION TECHNOLOGY
 Witness: Stephen J. Mikovits
 Category: A. Applications
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 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
Total		908	908	908	0	0	0	908	908	908
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3072.000 - SUPPLY CHAIN & LOGISTICS SYSTEMS

Determination of Adjusted-Recorded (Incurred Costs):

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

Note: Totals may include rounding differences.

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

Area: INFORMATION TECHNOLOGY
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 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							
2011 Total	-247	-15	0	-2.6			
2012	-308	-18	0	-3.1	CCTR Transf	To 2200-2444.000	FFIGUERO20131 031104620837
IT Employee Transfer from SDGE to SCG as of 2013							
2012 Total	-308	-18	0	-3.1			
2013 Total	0	0	0	0.0			

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	777	777	777	777	
Non-Labor		296	285	280	390	168	168	168	168	
NSE		0	0	0	0	0	0	0	0	
Total		1,372	1,369	1,266	1,136	945	945	945	945	
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	4	0	0	4	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
Total Incurred	778	168	0	946	7.49	778	168	0	946	7.49
% Allocation										
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	4	0	0	4	0.03	4	0	0	4	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
Total Incurred	778	168	0	946	7.49	778	168	0	946	7.49
% Allocation										
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	777	777	777	0	0	0	777	777	777
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
Total		945	945	945	0	0	0	945	945	945
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3073.000 - ENTERPRISE INTEGRATION SERVICES

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	851	874	827	640	671
Non-Labor	270	266	270	384	168
NSE	0	0	0	0	0
Total	1,121	1,140	1,097	1,024	839
FTE	8.4	8.7	8.1	6.1	6.4
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	851	874	827	640	671
Non-Labor	270	266	270	384	168
NSE	0	0	0	0	0
Total	1,121	1,140	1,097	1,024	839
FTE	8.4	8.7	8.1	6.1	6.4
Vacation & Sick (Nominal \$)					
Labor	131	139	122	93	106
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	131	139	122	93	106
FTE	1.4	1.5	1.3	1.0	1.1
Escalation to 2013\$					
Labor	93	72	37	13	0
Non-Labor	26	19	11	7	0
NSE	0	0	0	0	0
Total	119	91	47	19	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	1,076	1,085	986	746	777
Non-Labor	296	285	280	390	168
NSE	0	0	0	0	0
Total	1,372	1,369	1,266	1,136	945
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	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		139	474	220	212	291	291	291	291	
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
Total Incurred	262	28	0	290	2.25	262	28	0	290	2.25
% Allocation										
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
Total Incurred	262	28	0	290	2.25	262	28	0	290	2.25
% Allocation										
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
Total		291	291	291	0	0	0	291	291	291
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3074.000 - SSDS PROJECT OFFICE

Determination of Adjusted-Recorded (Incurred Costs):

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

2009 Total	38	-33	0	2.4
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2010 Total	0	0	0	0.0
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2011 Total	0	0	0	0.0
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2012 Total	0	0	0	0.0
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2013 Total	0	0	0	0.0
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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	
Total		1,497	1,610	1,264	1,318	1,324	1,324	1,324	1,324	
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
Total Incurred	1,317	7	0	1,324	13.08	1,317	7	0	1,324	13.08
% Allocation										
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
Total Incurred	1,317	7	0	1,324	13.08	1,317	7	0	1,324	13.08
% Allocation										
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
Total		1,324	1,324	1,324	0	0	0	1,324	1,324	1,324
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3076.000 - CORPORATE SYSTEMS

Determination of Adjusted-Recorded (Incurred Costs):

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

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	464	30	30	30	30	
NSE		0	0	0	0	0	0	0	0	
Total		173	131	117	653	63	63	63	63	
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
Total Incurred	33	29	0	62	0.30	33	29	0	62	0.30
% Allocation										
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
Total Incurred	33	29	0	62	0.30	33	29	0	62	0.30
% Allocation										
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
Total		63	63	63	0	0	0	63	63	63
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3079.000 - SCG CUSTOMER CARE PROJECT OFFICE

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	131	100	58	162	28
Non-Labor	7	6	46	456	30
NSE	0	0	0	0	0
Total	137	106	104	618	58
FTE	1.3	0.9	0.5	1.9	0.3
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	131	100	58	162	28
Non-Labor	7	6	46	456	30
NSE	0	0	0	0	0
Total	137	106	104	618	58
FTE	1.3	0.9	0.5	1.9	0.3
Vacation & Sick (Nominal \$)					
Labor	20	16	9	24	5
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	20	16	9	24	5
FTE	0.2	0.1	0.1	0.3	0.0
Escalation to 2013\$					
Labor	14	8	3	3	0
Non-Labor	1	0	2	8	0
NSE	0	0	0	0	0
Total	15	9	4	11	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	165	124	69	189	33
Non-Labor	7	7	48	464	30
NSE	0	0	0	0	0
Total	173	131	117	653	63
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	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	112	134	2	2	2	2	
Non-Labor		700	360	251	487	16	16	16	16	
NSE		0	0	0	0	0	0	0	0	
Total		1,392	377	363	622	18	18	18	18	
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
Total Incurred	3	16	0	19	0.04	3	16	0	19	0.04
% Allocation										
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
Total Incurred	3	16	0	19	0.04	3	16	0	19	0.04
% Allocation										
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
Total		18	18	18	0	0	0	18	18	18
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 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	879	676	425	495	2
Non-Labor	660	378	262	503	16
NSE	0	0	0	0	0
Total	1,539	1,054	687	998	18
FTE	9.5	6.9	3.9	4.4	0.0
Adjustments (Nominal \$) **					
Labor	-331	-662	-331	-380	0
Non-Labor	-21	-42	-21	-24	0
NSE	0	0	0	0	0
Total	-352	-704	-352	-404	0
FTE	-3.0	-6.0	-3.0	-3.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	548	14	94	115	2
Non-Labor	639	336	241	479	16
NSE	0	0	0	0	0
Total	1,187	350	335	594	18
FTE	6.5	0.9	0.9	1.4	0.0
Vacation & Sick (Nominal \$)					
Labor	85	2	14	17	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	85	2	14	17	0
FTE	1.1	0.2	0.1	0.2	0.0
Escalation to 2013\$					
Labor	60	1	4	2	0
Non-Labor	61	24	9	8	0
NSE	0	0	0	0	0
Total	121	25	14	11	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	693	17	112	134	2
Non-Labor	700	360	251	487	16
NSE	0	0	0	0	0
Total	1,392	377	363	622	18
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	-331	-380	0
Non-Labor	-21	-42	-21	-24	0
NSE	0	0	0	0	0
Total	-352	-704	-352	-404	0
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							
2009 Total	-331	-21	0	-3.0			
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							
2010 Total	-662	-42	0	-6.0			
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 Total	-331	-21	0	-3.0			
2012	-380	-24	0	-3.0	CCTR Transf	To 2200-2405.000	FFIGUERO20131 101095603390
IT Employee Transfer from SDGE to SCG as of 2013							

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

<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 Total	-380	-24	0	-3.0			
2013 Total	0	0	0	0.0			

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	
Total		829	1,197	672	966	50	50	50	50	
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
Total Incurred	-3	54	0	51	-0.03	-3	54	0	51	-0.04
% Allocation										
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
Total Incurred	-3	54	0	51	-0.04	-3	54	0	51	-0.04
% Allocation										
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
Total		50	50	50	0	0	0	50	50	50
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 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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

Determination of Adjusted-Recorded (Incurred Costs):

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

2009 Total	-920	-39	0	-9.0			
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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							

2010 Total	-920	-39	0	-9.0			
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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

2011 Total	-1,725	-75	0	-16.0			
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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							
2012 Total	-1,005	-42	0	-9.0			
2013 Total	0	0	0	0.0			

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	
Total		778	883	949	262	-2	-2	-2	-2	
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
Total Incurred	-2	0	0	-2	-0.01	-2	0	0	-2	-0.01
% Allocation										
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
Total Incurred	-2	0	0	-2	-0.01	-2	0	0	-2	-0.01
% Allocation										
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
Total		-2	-2	-2	0	0	0	-2	-2	-2
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 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	915	1,000	905	472	-2
Non-Labor	15	27	234	45	0
NSE	0	0	0	0	0
Total	930	1,028	1,139	517	-2
FTE	10.5	11.6	10.1	4.9	0.0
Adjustments (Nominal \$) **					
Labor	-299	-299	-299	-299	0
Non-Labor	-15	-15	-15	15	0
NSE	0	0	0	0	0
Total	-314	-314	-314	-284	0
FTE	-3.0	-3.0	-3.0	-3.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	616	701	605	173	-2
Non-Labor	0	12	219	60	0
NSE	0	0	0	0	0
Total	615	713	824	233	-2
FTE	7.5	8.6	7.1	1.9	0.0
Vacation & Sick (Nominal \$)					
Labor	95	112	89	25	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	95	112	89	25	0
FTE	1.3	1.5	1.2	0.3	0.0
Escalation to 2013\$					
Labor	67	57	27	3	0
Non-Labor	0	1	9	1	0
NSE	0	0	0	0	0
Total	67	58	36	4	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	778	870	722	201	-2
Non-Labor	-1	13	227	61	0
NSE	0	0	0	0	0
Total	778	883	949	262	-2
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
Total	-314	-314	-314	-284	0
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							
2009 Total	-299	-15	0	-3.0			
2010	-299	-15	0	-3.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031114143000
IT Employee Transfer from SDGE to SCG as of 2013							
2010 Total	-299	-15	0	-3.0			
2011	-299	-15	0	-3.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031114230427
IT Employee Transfer from SDGE to SCG as of 2013							
2011 Total	-299	-15	0	-3.0			
2012	-299	15	0	-3.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031114312693
IT Employee Transfer from SDGE to SCG as of 2013							
2012 Total	-299	15	0	-3.0			

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

<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	488	488	488	488	
Non-Labor		-161	92	114	605	365	365	365	365	
NSE		0	0	0	0	0	0	0	0	
Total		156	353	398	1,057	853	853	853	853	
FTE		4.3	2.8	3.1	5.0	4.6	4.6	4.6	4.6	

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: 2100-3086.000 - 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	442	270	0	712	4.07
Total Incurred	488	365	0	853	4.60	488	365	0	853	4.60
% Allocation										
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.	442	270	0	712	4.07	442	270	0	712	4.07
Total Incurred	488	365	0	853	4.60	488	365	0	853	4.60
% Allocation										
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.

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

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	488	488	488	0	0	0	488	488	488
Non-Labor	Base YR Rec	365	365	365	0	0	0	365	365	365
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		853	853	853	0	0	0	853	853	853
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3086.000 - CUSTOMER ASSISTANCE AND RELATIONSHIP

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	291	261	301	450	421
Non-Labor	165	92	118	604	365
NSE	0	0	0	0	0
Total	455	353	419	1,054	786
FTE	3.2	2.4	2.6	4.3	3.9
Adjustments (Nominal \$) **					
Labor	-39	-52	-62	-62	0
Non-Labor	-312	-6	-9	-9	0
NSE	0	0	0	0	0
Total	-351	-58	-71	-71	0
FTE	0.4	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	251	210	239	388	421
Non-Labor	-147	86	109	595	365
NSE	0	0	0	0	0
Total	104	296	348	983	786
FTE	3.6	2.4	2.6	4.3	3.9
Vacation & Sick (Nominal \$)					
Labor	39	33	35	56	67
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	39	33	35	56	67
FTE	0.6	0.4	0.4	0.7	0.7
Escalation to 2013\$					
Labor	28	17	11	8	0
Non-Labor	-14	6	4	10	0
NSE	0	0	0	0	0
Total	14	23	15	18	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	318	260	285	452	488
Non-Labor	-161	92	114	605	365
NSE	0	0	0	0	0
Total	156	353	398	1,057	853
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.

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

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-39	-52	-62	-62	0
Non-Labor	-312	-6	-9	-9	0
NSE	0	0	0	0	0
Total	-351	-58	-71	-71	0
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)							
2009 Total	-39	-312	0	0.4			

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 Total	-52	-6	0	0.0			

2011	-42	-3	0	0.0	CCTR Transf	To 2200-2405.000	FFIGUERO20131 031115345383
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: 2100-3086.000 - CUSTOMER ASSISTANCE AND RELATIONSHIP

<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	-20	-6	0	0.0	CCTR Transf	To 2200-2468.000	FFIGUERO20131 101101030463
IT Employee Transfer from SDGE to SCG as of 2013							
2011 Total	-62	-9	0	0.0			
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							
2012 Total	-62	-9	0	0.0			
2013 Total	0	0	0	0.0			

Note: Totals may include rounding differences.

Beginning of Workpaper
2100-3087.000 - UTILITY OPS SW DEVELOP SERVICES 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: 2100-3087.000 - 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	
Total		172	356	165	153	402	402	613	824	
FTE		1.3	-2.1	1.1	0.8	3.0	3.0	4.8	6.6	

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: 2100-3087.000 - UTILITY OPS SW DEVELOP 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	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
Total Incurred	375	27	0	402	3.00	375	27	0	402	3.00
% Allocation										
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
Total Incurred	556	57	0	613	4.80	737	87	0	824	6.60
% Allocation										
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.

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

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
Total		402	402	402	0	211	422	402	613	824
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>
2014 Total	0	0	0	0	0.0	

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.

2015 Total	181	30	0	211	1.8	
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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.

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

<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.

2016 Total	362	60	0	422	3.6	
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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: 2100-3087.000 - UTILITY OPS SW DEVELOP SERVICES DIRECTOR

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	119	65	104	91	324
Non-Labor	20	18	39	47	27
NSE	0	0	0	0	0
Total	139	83	144	137	350
FTE	1.1	0.6	0.9	0.6	2.6
Adjustments (Nominal \$) **					
Labor	0	227	0	0	0
Non-Labor	0	-24	0	0	0
NSE	0	0	0	0	0
Total	0	203	0	0	0
FTE	0.0	-2.4	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	119	292	104	91	324
Non-Labor	20	-5	39	47	27
NSE	0	0	0	0	0
Total	139	286	144	137	350
FTE	1.1	-1.8	0.9	0.6	2.6
Vacation & Sick (Nominal \$)					
Labor	18	46	15	13	51
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	18	46	15	13	51
FTE	0.2	-0.3	0.1	0.1	0.4
Escalation to 2013\$					
Labor	13	24	5	2	0
Non-Labor	2	0	2	1	0
NSE	0	0	0	0	0
Total	15	24	6	3	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	150	362	125	106	375
Non-Labor	22	-6	41	47	27
NSE	0	0	0	0	0
Total	172	356	165	153	402
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
Total	0	203	0	0	0
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>
2009 Total	0	0	0	0.0			
2010	227	-24	0	-2.4	1-Sided Adj	N/A	LBROUGH201311
Adjust to 2013 Outlook (as of Nov, 2013)							22145953743
2010 Total	227	-24	0	-2.4			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		352	-318	290	274	188	188	188	188	
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
Total Incurred	158	30	0	188	1.59	158	30	0	188	1.59
% Allocation										
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
Total Incurred	158	30	0	188	1.59	158	30	0	188	1.59
% Allocation										
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
Total		188	188	188	0	0	0	188	188	188
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3088.000 - SOFTWARE DEV - WORK MEAS SYSTEMS

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	826	399	855	989	136
Non-Labor	204	79	197	113	30
NSE	0	0	0	0	0
Total	1,030	478	1,052	1,102	166
FTE	9.1	4.3	8.8	9.8	1.4
Adjustments (Nominal \$) **					
Labor	-698	-698	-754	-821	0
Non-Labor	-30	-30	-33	-36	0
NSE	0	0	0	0	0
Total	-728	-728	-787	-857	0
FTE	-6.0	-6.0	-7.0	-8.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	128	-299	101	168	136
Non-Labor	174	49	164	77	30
NSE	0	0	0	0	0
Total	302	-250	265	245	166
FTE	3.1	-1.7	1.8	1.8	1.4
Vacation & Sick (Nominal \$)					
Labor	20	-48	15	24	22
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	20	-48	15	24	22
FTE	0.5	-0.3	0.3	0.3	0.2
Escalation to 2013\$					
Labor	14	-25	4	3	0
Non-Labor	16	3	6	1	0
NSE	0	0	0	0	0
Total	30	-21	11	5	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	162	-371	120	195	158
Non-Labor	190	52	170	78	30
NSE	0	0	0	0	0
Total	352	-318	290	274	188
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
Total	-728	-728	-787	-857	0
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							
2009 Total	-698	-30	0	-6.0			
2010	-698	-30	0	-6.0	CCTR Transf	To 2200-2445.000	FFIGUERO20131 031122049517
IT Employee Transfer from SDGE to SCG as of 2013							
2010 Total	-698	-30	0	-6.0			
2011	-754	-33	0	-7.0	CCTR Transf	To 2200-2445.000	FFIGUERO20131 031122157597
IT Employee Transfer from SDGE to SCG as of 2013							
2011 Total	-754	-33	0	-7.0			
2012	-821	-36	0	-8.0	CCTR Transf	To 2200-2445.000	FFIGUERO20131 031122351440
IT Employee Transfer from SDGE to SCG as of 2013							
2012 Total	-821	-36	0	-8.0			

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: 2100-3088.000 - 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	
Total		920	918	1,051	865	993	993	993	993	
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	772	215	0	987	7.33
Total Incurred	772	221	0	993	7.33	772	221	0	993	7.33
% Allocation										
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.	772	215	0	987	7.33	772	215	0	987	7.33
Total Incurred	772	221	0	993	7.33	772	221	0	993	7.33
% Allocation										
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
Total		993	993	993	0	0	0	993	993	993
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3089.000 - BUSINESS INTELLIGENCE GROUP

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	961	1,065	1,172	991	667
Non-Labor	149	42	82	557	221
NSE	0	0	0	0	0
Total	1,109	1,107	1,254	1,548	887
FTE	9.5	10.5	11.2	9.4	6.2
Adjustments (Nominal \$) **					
Labor	-341	-341	-341	-394	0
Non-Labor	-24	-24	-24	-390	0
NSE	0	0	0	0	0
Total	-365	-365	-365	-784	0
FTE	-3.0	-3.0	-3.0	-1.8	0.0
Recorded-Adjusted (Nominal \$)					
Labor	620	724	831	597	667
Non-Labor	125	18	58	167	221
NSE	0	0	0	0	0
Total	745	742	889	764	887
FTE	6.5	7.5	8.2	7.6	6.2
Vacation & Sick (Nominal \$)					
Labor	96	115	122	87	106
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	96	115	122	87	106
FTE	1.1	1.3	1.3	1.2	1.1
Escalation to 2013\$					
Labor	68	59	37	12	0
Non-Labor	12	1	2	3	0
NSE	0	0	0	0	0
Total	80	61	39	15	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	783	899	991	696	772
Non-Labor	137	19	60	170	221
NSE	0	0	0	0	0
Total	920	918	1,051	865	993
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	
Non-Labor	-24	-24	-24	-390	0	
NSE	0	0	0	0	0	
Total	-365	-365	-365	-784	0	
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							
2009 Total	-341	-24	0	-3.0			
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							
2010 Total	-341	-24	0	-3.0			
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>
2011 Total	-341	-24	0	-3.0			
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)							
2012 Total	-394	-390	0	-1.8			
2013 Total	0	0	0	0.0			

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	
Total		1,463	1,440	1,148	1,346	4,368	4,556	4,982	6,051	
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
Total Incurred	1,299	3,069	0	4,368	11.01	1,299	3,257	0	4,556	11.01
% Allocation										
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
Total Incurred	1,299	3,683	0	4,982	11.01	1,299	4,752	0	6,051	11.01
% Allocation										
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: 2100-3091.000 - 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.

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

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
Total		4,368	4,368	4,368	188	614	1,683	4,556	4,982	6,051
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.

2014 Total	0	188	0	188	0.0	
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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.

2015 Total	0	614	0	614	0.0	
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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.

2016 Total	0	1,683	0	1,683	0.0	
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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)
Recorded (Nominal \$)*					
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
Total	1,886	1,978	1,732	1,948	4,190
FTE	13.6	14.2	14.9	14.7	9.4
Adjustments (Nominal \$) **					
Labor	-654	-738	-738	-738	0
Non-Labor	-27	-30	-30	-30	0
NSE	0	0	0	0	0
Total	-681	-768	-768	-768	0
FTE	-5.0	-6.0	-6.0	-6.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	850	843	953	985	1,121
Non-Labor	355	368	11	195	3,069
NSE	0	0	0	0	0
Total	1,205	1,210	964	1,180	4,190
FTE	8.6	8.2	8.9	8.7	9.4
Vacation & Sick (Nominal \$)					
Labor	131	134	140	143	178
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	131	134	140	143	178
FTE	1.4	1.4	1.5	1.4	1.6
Escalation to 2013\$					
Labor	93	69	43	20	0
Non-Labor	34	26	0	3	0
NSE	0	0	0	0	0
Total	127	95	43	23	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
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
Total	1,463	1,440	1,148	1,346	4,368
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
Total	-681	-768	-768	-768	0
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							
2009 Total	-654	-27	0	-5.0			
2010	-738	-30	0	-6.0	CCTR Transf	To 2200-2447.000	FFIGUERO20131 031123733517
IT Employee Transfer from SDGE to SCG as of 2013							
2010 Total	-738	-30	0	-6.0			
2011	-738	-30	0	-6.0	CCTR Transf	To 2200-2447.000	FFIGUERO20131 031123833363
IT Employee Transfer from SDGE to SCG as of 2013							
2011 Total	-738	-30	0	-6.0			
2012	-738	-30	0	-6.0	CCTR Transf	To 2200-2447.000	FFIGUERO20131 031123958550
IT Employee Transfer from SDGE to SCG as of 2013							
2012 Total	-738	-30	0	-6.0			

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

<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
2100-3093.000 - 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	
Total		903	531	367	836	1,015	1,015	1,015	1,015	
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
Total Incurred	547	469	0	1,016	5.60	547	469	0	1,016	5.60
% Allocation										
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
Total Incurred	547	469	0	1,016	5.60	547	469	0	1,016	5.60
% Allocation										
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
Total		1,015	1,015	1,015	0	0	0	1,015	1,015	1,015
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3093.000 - SOFTWARE DEV - WORK MEAS & ELECTRIC SYST

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	670	397	432	571	472
Non-Labor	254	239	114	487	469
NSE	0	0	0	0	0
Total	924	636	546	1,059	941
FTE	7.0	4.1	4.3	5.6	4.8
Adjustments (Nominal \$) **					
Labor	-167	-167	-213	-266	0
Non-Labor	-9	-9	-12	-15	0
NSE	0	0	0	0	0
Total	-176	-176	-225	-281	0
FTE	-2.0	-2.0	-2.0	-3.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	502	229	220	305	472
Non-Labor	245	230	102	472	469
NSE	0	0	0	0	0
Total	747	459	321	778	941
FTE	5.0	2.1	2.3	2.6	4.8
Vacation & Sick (Nominal \$)					
Labor	78	37	32	44	75
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	78	37	32	44	75
FTE	0.8	0.4	0.4	0.4	0.8
Escalation to 2013\$					
Labor	55	19	10	6	0
Non-Labor	23	16	4	8	0
NSE	0	0	0	0	0
Total	78	35	14	14	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	635	285	262	356	546
Non-Labor	268	246	106	481	469
NSE	0	0	0	0	0
Total	903	531	367	836	1,015
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
Total	-176	-176	-225	-281	0
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							
2009 Total	-167	-9	0	-2.0			
2010	-167	-9	0	-2.0	CCTR Transf	To 2200-2446.000	FFIGUERO20131 031124251980
IT Employee Transfer from SDGE to SCG as of 2013							
2010 Total	-167	-9	0	-2.0			
2011	-213	-12	0	-2.0	CCTR Transf	To 2200-2446.000	FFIGUERO20131 031124340870
IT Employee Transfer from SDGE to SCG as of 2013							
2011 Total	-213	-12	0	-2.0			
2012	-266	-15	0	-3.0	CCTR Transf	To 2200-2446.000	FFIGUERO20131 031124435723
IT Employee Transfer from SDGE to SCG as of 2013							
2012 Total	-266	-15	0	-3.0			

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: 2100-3093.000 - 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>
2013 Total	0	0	0	0.0			

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	
Total		306	312	269	273	287	287	705	1,124	
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
Total Incurred	263	24	0	287	2.10	263	24	0	287	2.11
% Allocation										
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
Total Incurred	641	64	0	705	5.81	1,020	104	0	1,124	9.61
% Allocation										
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
Total		287	287	287	0	418	837	287	705	1,124
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>
2014 Total	0	0	0	0	0.0	

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.

2015 Total	378	40	0	418	3.7	
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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.

2016 Total	757	80	0	837	7.5	
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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)
Recorded (Nominal \$)*					
Labor	206	221	196	204	227
Non-Labor	42	34	34	35	24
NSE	0	0	0	0	0
Total	248	256	230	239	251
FTE	1.8	1.9	1.3	1.3	1.8
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	206	221	196	204	227
Non-Labor	42	34	34	35	24
NSE	0	0	0	0	0
Total	248	256	230	239	251
FTE	1.8	1.9	1.3	1.3	1.8
Vacation & Sick (Nominal \$)					
Labor	32	35	29	30	36
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	32	35	29	30	36
FTE	0.3	0.3	0.2	0.2	0.3
Escalation to 2013\$					
Labor	22	18	9	4	0
Non-Labor	4	2	1	1	0
NSE	0	0	0	0	0
Total	26	21	10	5	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	260	275	234	238	263
Non-Labor	46	37	35	36	24
NSE	0	0	0	0	0
Total	306	312	269	273	287
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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		3,195	4,328	4,481	5,997	4,954	4,954	5,350	8,092	
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: 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
Total Incurred	0	4,954	0	4,954	0.00	0	4,954	0	4,954	0.00
% Allocation										
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
Total Incurred	0	5,350	0	5,350	0.00	0	8,092	0	8,092	0.00
% Allocation										
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.

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

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.

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

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
Total		4,954	4,954	4,954	0	396	3,138	4,954	5,350	8,092
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 Total	0	0	0	0	0.0	
2015	0	396	0	396	0.0	1-Sided Adj
<p>8% escalation in 2015 & 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>						
2015 Total	0	396	0	396	0.0	
2016	0	824	0	824	0.0	1-Sided Adj
<p>8% escalation in 2015 & 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>						
2016 Total	0	3,138	0	3,138	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: 2100-3623.000 - SHARED SOFTWARE DEVELOPMENT CONTRACTS

Determination of Adjusted-Recorded (Incurred Costs):

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

Note: Totals may include rounding differences.

Beginning of Workpaper
2100-3754.000 - 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: 2100-3754.000 - 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	249	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	
Total		156	430	650	472	6	6	6	6	
FTE		1.5	2.3	2.8	4.3	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: 2100-3754.000 - 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
Total Incurred	1	5	0	6	0.00	1	5	0	6	0.00
% Allocation										
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
Total Incurred	1	5	0	6	0.00	1	5	0	6	0.00
% Allocation										
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.

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

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
Total		6	6	6	0	0	0	6	6	6
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 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3754.000 - CUSTOMER CARE PROJECT OFFICE

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	254	338	365	503	1
Non-Labor	16	176	371	53	5
NSE	0	0	0	0	0
Total	269	514	736	556	6
FTE	2.3	3.0	3.4	4.7	0.0
Adjustments (Nominal \$) **					
Labor	-138	-138	-138	-138	0
Non-Labor	-6	-6	-6	-6	0
NSE	0	0	0	0	0
Total	-144	-144	-144	-144	0
FTE	-1.0	-1.0	-1.0	-1.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	115	200	227	365	1
Non-Labor	10	170	365	47	5
NSE	0	0	0	0	0
Total	125	370	592	411	6
FTE	1.3	2.0	2.4	3.7	0.0
Vacation & Sick (Nominal \$)					
Labor	18	32	33	53	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	18	32	33	53	0
FTE	0.2	0.3	0.4	0.6	0.0
Escalation to 2013\$					
Labor	13	16	10	7	0
Non-Labor	1	12	14	1	0
NSE	0	0	0	0	0
Total	14	28	24	8	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	146	249	271	425	1
Non-Labor	10	182	379	48	5
NSE	0	0	0	0	0
Total	156	430	650	472	6
FTE	1.5	2.3	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.

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

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-138	-138	-138	-138	0
Non-Labor	-6	-6	-6	-6	0
NSE	0	0	0	0	0
Total	-144	-144	-144	-144	0
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	-138	-6	0	-1.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031145637953
IT Employee Transfer from SDGE to SCG as of 2013							
2009 Total	-138	-6	0	-1.0			
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 Total	-138	-6	0	-1.0			
2011	-138	-6	0	-1.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031145748963
IT Employee Transfer from SDGE to SCG as of 2013							
2011 Total	-138	-6	0	-1.0			
2012	-138	-6	0	-1.0	CCTR Transf	To 2200-2451.000	FFIGUERO20131 031145823080
IT Employee Transfer from SDGE to SCG as of 2013							
2012 Total	-138	-6	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: 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>
2013 Total	0	0	0	0.0			

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:

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
	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	
	Total	0	0	0	1,352	6	6	6	6	
	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
Total Incurred	-5	11	0	6	-0.04	-5	11	0	6	-0.04
% Allocation										
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
Total Incurred	-5	11	0	6	-0.04	-5	11	0	6	-0.04
% Allocation										
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
Total		6	6	6	0	0	0	6	6	6
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 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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

Determination of Adjusted-Recorded (Incurred Costs):

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

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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		0	0	0	480	131	131	131	131	
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
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 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
Total Incurred	124	6	0	130	1.13	124	6	0	130	1.13
% Allocation										
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
Total Incurred	124	6	0	130	1.13	124	6	0	130	1.13
% Allocation										
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
Total		131	131	131	0	0	0	131	131	131
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3848.000 - CUSTOMER ANALYTICS SYSTEM

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	49	107
Non-Labor	0	0	0	416	6
NSE	0	0	0	0	0
Total	0	0	0	465	114
FTE	0.0	0.0	0.0	0.5	1.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	49	107
Non-Labor	0	0	0	416	6
NSE	0	0	0	0	0
Total	0	0	0	465	114
FTE	0.0	0.0	0.0	0.5	1.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	7	17
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	7	17
FTE	0.0	0.0	0.0	0.1	0.2
Escalation to 2013\$					
Labor	0	0	0	1	0
Non-Labor	0	0	0	7	0
NSE	0	0	0	0	0
Total	0	0	0	8	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	58	124
Non-Labor	0	0	0	423	6
NSE	0	0	0	0	0
Total	0	0	0	480	131
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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		0	0	0	0	18	18	18	18	
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
Total Incurred	18	0	0	18	0.19	18	0	0	18	0.19
% Allocation										
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
Total Incurred	18	0	0	18	0.19	18	0	0	18	0.19
% Allocation										
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
Total		18	18	18	0	0	0	18	18	18
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3905.000 - ENTERPRISE MODELING TEST TEAM

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	16
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	16
FTE	0.0	0.0	0.0	0.0	0.2
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	16
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	16
FTE	0.0	0.0	0.0	0.0	0.2
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	3
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	3
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	0	18
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	18
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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		0	391	314	738	479	479	735	806	
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
Total Incurred	415	64	0	479	4.45	415	64	0	479	4.45
% Allocation										
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
Total Incurred	481	254	0	735	5.15	547	259	0	806	5.85
% Allocation										
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
Total		479	479	479	0	256	327	479	735	806
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>
2014 Total	0	0	0	0	0.0	

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.

2015 Total	66	190	0	256	0.7	
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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.

2016 Total	132	195	0	327	1.4	
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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)
Recorded (Nominal \$)*					
Labor	0	443	473	567	358
Non-Labor	0	89	95	411	64
NSE	0	0	0	0	0
Total	0	532	568	978	422
FTE	0.0	4.7	4.7	5.5	3.8
Adjustments (Nominal \$) **					
Labor	0	-200	-285	-285	0
Non-Labor	0	-6	-9	-9	0
NSE	0	0	0	0	0
Total	0	-206	-294	-294	0
FTE	0.0	-2.0	-2.0	-2.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	243	188	282	358
Non-Labor	0	83	86	402	64
NSE	0	0	0	0	0
Total	0	326	274	684	422
FTE	0.0	2.7	2.7	3.5	3.8
Vacation & Sick (Nominal \$)					
Labor	0	39	28	41	57
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	39	28	41	57
FTE	0.0	0.5	0.4	0.6	0.7
Escalation to 2013\$					
Labor	0	20	8	6	0
Non-Labor	0	6	3	7	0
NSE	0	0	0	0	0
Total	0	26	12	13	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	301	225	329	415
Non-Labor	0	89	89	409	64
NSE	0	0	0	0	0
Total	0	391	314	738	479
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
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

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
Total	0	-206	-294	-294	0
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>
2009 Total	0	0	0	0.0			
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							
2010 Total	-200	-6	0	-2.0			
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							
2011 Total	-285	-9	0	-2.0			
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							
2012 Total	-285	-9	0	-2.0			

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: 2100-4001.000 - 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>
2013 Total	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
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
Total	48,612	47,359	51,293	55,046
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
Total	2,317	2,587	2,587	2,587
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
Total	167	167	789	1,260
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
Total	0	0	0	0
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
Total	852	852	852	852
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
Total	34	34	34	34
FTE	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
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
Total	596	188	203	219
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
Total	1,265	1,265	1,265	1,265
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
Total	12,114	8,904	9,616	10,385
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
Total	14	14	14	14
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
Total	5,842	6,408	6,921	7,475
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
Total	1,131	1,131	1,131	1,131
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
Total	838	838	838	838
FTE	8.3	8.3	8.3	8.3

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

2100-3335.000 UNIX SERVER GROUP

Labor	30	30	30	30
Non-Labor	20	20	20	20
NSE	0	0	0	0
Total	50	50	50	50
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
Total	3,232	4,604	4,972	5,370
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
Total	5,701	6,077	6,563	7,088
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
Total	298	298	298	298
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
Total	319	319	319	319
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
Total	1,066	1,075	1,161	1,254
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
Total	1,908	1,908	1,908	1,908
FTE	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
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
Total	38	38	38	38
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
Total	236	236	236	236
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
Total	322	322	322	322
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
Total	1,094	1,094	1,094	1,094
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
Total	422	422	422	422
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
Total	-8	-8	231	470
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
Total	217	217	217	217
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: 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
Total	17	17	17	17
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
Total	1	1	1	1
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
Total	5,471	4,514	4,875	5,265
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
Total	900	1,069	1,155	1,247
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
Total	327	528	570	616
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
Total	888	890	961	1,038
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
Total	430	430	430	430
FTE	3.7	3.7	3.7	3.7

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

2100-3888.000 CLIENT TECH SVCS

Labor	310	310	310	310
Non-Labor	17	17	17	17
NSE	0	0	0	0
Total	327	327	327	327
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
Total	95	452	785	868
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
Total	91	91	91	91
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	1,050	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	
Total		1,527	1,279	1,269	1,552	2,317	2,587	2,587	2,587	
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
Total Incurred	1,842	476	0	2,318	18.99	1,842	746	0	2,588	18.99
% Allocation										
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
Total Incurred	1,842	746	0	2,588	18.99	1,842	746	0	2,588	18.99
% Allocation										
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
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

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
Total		2,317	2,317	2,317	270	270	270	2,587	2,587	2,587
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.

2014 Total	0	270	0	270	0.0
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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.

2015 Total	0	270	0	270	0.0
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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.

2016 Total	0	270	0	270	0.0	
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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)
Recorded (Nominal \$)*					
Labor	996	879	881	1,033	1,589
Non-Labor	245	176	210	342	476
NSE	0	0	0	0	0
Total	1,241	1,055	1,091	1,376	2,065
FTE	11.3	10.1	9.9	10.4	16.2
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	996	879	881	1,033	1,589
Non-Labor	245	176	210	342	476
NSE	0	0	0	0	0
Total	1,241	1,055	1,091	1,376	2,065
FTE	11.3	10.1	9.9	10.4	16.2
Vacation & Sick (Nominal \$)					
Labor	154	140	130	150	252
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	154	140	130	150	252
FTE	1.9	1.7	1.6	1.7	2.8
Escalation to 2013\$					
Labor	109	72	39	20	0
Non-Labor	23	12	8	6	0
NSE	0	0	0	0	0
Total	132	85	48	26	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	1,259	1,091	1,050	1,203	1,841
Non-Labor	268	188	219	348	476
NSE	0	0	0	0	0
Total	1,527	1,279	1,269	1,552	2,317
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
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

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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		675	456	303	37	166	166	788	1,259	
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
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 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
Total Incurred	136	30	0	166	1.03	136	30	0	166	1.03
% Allocation										
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
Total Incurred	553	235	0	788	5.23	969	290	0	1,259	9.43
% Allocation										
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
Total		166	166	166	0	622	1,093	166	788	1,259
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>
2014 Total	0	0	0	0	0.0	

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.

2015 Total	417	205	0	622	4.2	
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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.

2016 Total	833	260	0	1,093	8.4	
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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)
Recorded (Nominal \$)*					
Labor	273	290	228	170	117
Non-Labor	474	264	202	66	31
NSE	0	0	0	0	0
Total	748	553	430	236	148
FTE	2.1	2.3	1.8	1.3	0.9
Adjustments (Nominal \$) **					
Labor	-147	-147	-147	-191	0
Non-Labor	-3	-3	-3	-6	0
NSE	0	0	0	0	0
Total	-150	-150	-150	-197	0
FTE	-1.0	-1.0	-1.0	-2.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	126	142	81	-21	117
Non-Labor	471	261	199	60	31
NSE	0	0	0	0	0
Total	597	403	280	39	148
FTE	1.1	1.3	0.8	-0.7	0.9
Vacation & Sick (Nominal \$)					
Labor	19	23	12	-3	19
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	19	23	12	-3	19
FTE	0.2	0.2	0.1	-0.1	0.2
Escalation to 2013\$					
Labor	14	12	4	0	0
Non-Labor	45	18	8	1	0
NSE	0	0	0	0	0
Total	58	30	11	1	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	159	177	96	-24	136
Non-Labor	516	279	207	61	31
NSE	0	0	0	0	0
Total	675	456	303	37	166
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
Total	-150	-150	-150	-197	0
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							
2009 Total	-147	-3	0	-1.0			
2010	-147	-3	0	-1.0	CCTR Transf	To 2200-2406.000	FFIGUERO20131 031124948890
IT Employee Transfer from SDGE to SCG as of 2013							
2010 Total	-147	-3	0	-1.0			
2011	-147	-3	0	-1.0	CCTR Transf	To 2200-2406.000	FFIGUERO20131 031125050277
IT Employee Transfer from SDGE to SCG as of 2013							
2011 Total	-147	-3	0	-1.0			
2012	-191	-6	0	-2.0	CCTR Transf	To 2200-2406.000	FFIGUERO20131 031125149367
IT Employee Transfer from SDGE to SCG as of 2013							
2012 Total	-191	-6	0	-2.0			

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: 2100-3095.000 - 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>
2013 Total	0	0	0	0.0			

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	
Total		2,169	2,665	2,036	993	0	0	0	0	
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
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 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
Total Incurred	0	0	0	0	0.00	0	0	0	0	0.00
% Allocation										
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
Total Incurred	0	0	0	0	0.00	0	0	0	0	0.00
% Allocation										
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
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

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
Total		0	0	0	0	0	0	0	0	0
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 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3096.000 - NETWORK ENGINEERING-NCS

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	1,274	1,641	1,649	598	0
Non-Labor	818	897	468	691	0
NSE	0	0	0	0	0
Total	2,092	2,537	2,118	1,289	0
FTE	13.8	18.0	17.2	5.9	0.0
Adjustments (Nominal \$) **					
Labor	-256	-256	-336	-336	0
Non-Labor	-12	-12	-15	-15	0
NSE	0	0	0	0	0
Total	-268	-268	-351	-351	0
FTE	-3.0	-3.0	-4.0	-4.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	1,018	1,384	1,313	261	0
Non-Labor	806	885	453	676	0
NSE	0	0	0	0	0
Total	1,824	2,269	1,766	938	0
FTE	10.8	15.0	13.2	1.9	0.0
Vacation & Sick (Nominal \$)					
Labor	157	220	193	38	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	157	220	193	38	0
FTE	1.8	2.6	2.2	0.3	0.0
Escalation to 2013\$					
Labor	111	114	59	5	0
Non-Labor	76	63	18	12	0
NSE	0	0	0	0	0
Total	188	176	76	17	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	1,286	1,718	1,565	305	0
Non-Labor	882	947	471	688	0
NSE	0	0	0	0	0
Total	2,169	2,665	2,036	993	0
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
Total	-268	-268	-351	-351	0
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							
2009 Total	-256	-12	0	-3.0			
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							
2010 Total	-256	-12	0	-3.0			
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
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

<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							
2011 Total	-336	-15	0	-4.0			
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							
2012 Total	-336	-15	0	-4.0			
2013 Total	0	0	0	0.0			

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	
Total		1,208	1,213	873	917	852	852	852	852	
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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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

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
Total Incurred	802	50	0	852	9.13	802	50	0	852	9.13
% Allocation										
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
Total Incurred	802	50	0	852	9.13	802	50	0	852	9.13
% Allocation										
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: 2100-3097.000 - 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
Total		852	852	852	0	0	0	852	852	852
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3097.000 - CLIENT TECHNOLOGY & DEPOT SERVICES

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	1,084	1,199	946	944	692
Non-Labor	164	56	65	131	50
NSE	0	0	0	0	0
Total	1,248	1,255	1,012	1,075	742
FTE	14.8	16.6	12.7	11.7	7.8
Adjustments (Nominal \$) **					
Labor	-260	-260	-260	-260	0
Non-Labor	-12	-12	-12	-12	0
NSE	0	0	0	0	0
Total	-272	-272	-272	-272	0
FTE	-3.0	-3.0	-3.0	-3.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	824	939	686	683	692
Non-Labor	152	44	53	119	50
NSE	0	0	0	0	0
Total	976	983	739	802	742
FTE	11.8	13.6	9.7	8.7	7.8
Vacation & Sick (Nominal \$)					
Labor	127	150	101	99	110
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	127	150	101	99	110
FTE	2.0	2.4	1.6	1.4	1.4
Escalation to 2013\$					
Labor	90	77	31	14	0
Non-Labor	14	3	2	2	0
NSE	0	0	0	0	0
Total	105	80	33	16	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	1,041	1,166	818	796	802
Non-Labor	167	47	55	121	50
NSE	0	0	0	0	0
Total	1,208	1,213	873	917	852
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
Total	-272	-272	-272	-272	0
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							
2009 Total	-260	-12	0	-3.0			
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							
2010 Total	-260	-12	0	-3.0			
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
 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

<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 Total	-260	-12	0	-3.0			
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
2012 Total	-260	-12	0	-3.0			
2013 Total	0	0	0	0.0			

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	
Total		200	244	318	497	35	35	35	35	
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
Total Incurred	34	0	0	34	0.39	34	0	0	34	0.39
% Allocation										
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
Total Incurred	34	0	0	34	0.39	34	0	0	34	0.39
% Allocation										
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
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

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
Total		35	35	35	0	0	0	35	35	35
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3098.000 - ENTERPRISE SERVER GROUP

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	486	507	592	754	30
Non-Labor	7	27	9	7	0
NSE	0	0	0	0	0
Total	492	534	602	761	30
FTE	4.6	5.1	6.2	7.5	0.3
Adjustments (Nominal \$) **					
Labor	-323	-323	-323	-323	0
Non-Labor	-12	-12	-12	-12	0
NSE	0	0	0	0	0
Total	-335	-335	-335	-335	0
FTE	-3.0	-3.0	-3.0	-3.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	162	184	269	431	30
Non-Labor	-5	15	-3	-5	0
NSE	0	0	0	0	0
Total	157	199	267	426	30
FTE	1.6	2.1	3.2	4.5	0.3
Vacation & Sick (Nominal \$)					
Labor	25	29	40	62	5
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	25	29	40	62	5
FTE	0.3	0.4	0.5	0.7	0.1
Escalation to 2013\$					
Labor	18	15	12	9	0
Non-Labor	-1	1	0	0	0
NSE	0	0	0	0	0
Total	17	16	12	8	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	205	228	321	502	34
Non-Labor	-6	16	-3	-5	0
NSE	0	0	0	0	0
Total	200	244	318	497	35
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
Total	-335	-335	-335	-335	0
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							
2009 Total	-323	-12	0	-3.0			
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							
2010 Total	-323	-12	0	-3.0			
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.

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

<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 Total	-323	-12	0	-3.0			
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							
2012 Total	-323	-12	0	-3.0			
2013 Total	0	0	0	0.0			

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	
Total		1,554	1,274	1,276	1,031	596	188	203	219	
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: 2100-3099.000 - 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
Total Incurred	0	596	0	596	0.00	0	188	0	188	0.00
% Allocation										
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
Total Incurred	0	203	0	203	0.00	0	219	0	219	0.00
% Allocation										
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: 2100-3099.000 - 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.

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

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
Total		596	596	596	-408	-393	-377	188	203	219
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.

2014 Total	0	-408	0	-408	0.0	
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2015	0	-150	0	-150	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: 2100-3099.000 - 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.						
2015 Total	0	-393	0	-393	0.0	
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.

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

<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.

2016 Total	0	-377	0	-377	0.0	
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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: 2100-3099.000 - DESKTOP HARDWARE

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	1,420	1,190	1,228	1,013	596
NSE	0	0	0	0	0
Total	1,420	1,190	1,228	1,013	596
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	1,420	1,190	1,228	1,013	596
NSE	0	0	0	0	0
Total	1,420	1,190	1,228	1,013	596
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	135	84	48	18	0
NSE	0	0	0	0	0
Total	135	84	48	18	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	0	0
Non-Labor	1,554	1,274	1,276	1,031	596
NSE	0	0	0	0	0
Total	1,554	1,274	1,276	1,031	596
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: 2100-3099.000 - 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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

Note: Totals may include rounding differences.

Beginning of Workpaper
2100-3100.000 - MIDDLEWARE AND INTERNET ENGINEERING

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

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	
Total		1,326	1,310	1,160	985	1,265	1,265	1,265	1,265	
FTE		12.0	12.2	10.8	9.4	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: 2100-3100.000 - 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
Total Incurred	1,067	198	0	1,265	9.95	1,067	198	0	1,265	9.95
% Allocation										
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
Total Incurred	1,067	198	0	1,265	9.95	1,067	198	0	1,265	9.95
% Allocation										
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: 2100-3100.000 - 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.

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

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
Total		1,265	1,265	1,265	0	0	0	1,265	1,265	1,265
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3100.000 - MIDDLEWARE AND INTERNET ENGINEERING

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	1,210	1,223	1,123	1,010	921
Non-Labor	35	28	49	31	198
NSE	0	0	0	0	0
Total	1,245	1,251	1,171	1,041	1,119
FTE	12.3	12.4	11.3	10.1	8.5
Adjustments (Nominal \$) **					
Labor	-184	-184	-184	-184	0
Non-Labor	-9	-9	-9	-9	0
NSE	0	0	0	0	0
Total	-193	-193	-193	-193	0
FTE	-2.0	-2.0	-2.0	-2.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	1,026	1,039	939	826	921
Non-Labor	26	19	40	22	198
NSE	0	0	0	0	0
Total	1,052	1,058	979	849	1,119
FTE	10.3	10.4	9.3	8.1	8.5
Vacation & Sick (Nominal \$)					
Labor	158	165	138	120	146
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	158	165	138	120	146
FTE	1.7	1.8	1.5	1.3	1.5
Escalation to 2013\$					
Labor	112	85	42	16	0
Non-Labor	3	1	2	0	0
NSE	0	0	0	0	0
Total	115	87	44	17	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	1,297	1,290	1,119	962	1,067
Non-Labor	29	20	41	23	198
NSE	0	0	0	0	0
Total	1,326	1,310	1,160	985	1,265
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
Total	-193	-193	-193	-193	0
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							
2009 Total	-184	-9	0	-2.0			
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							
2010 Total	-184	-9	0	-2.0			

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: 2100-3100.000 - 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							
2011 Total	-184	-9	0	-2.0			
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							
2012 Total	-184	-9	0	-2.0			
2013 Total	0	0	0	0.0			

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	
Total		11,091	10,424	10,190	9,927	12,114	8,904	9,616	10,385	
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
Total Incurred	0	12,114	0	12,114	0.00	0	8,904	0	8,904	0.00
% Allocation										
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
Total Incurred	0	9,616	0	9,616	0.00	0	10,385	0	10,385	0.00
% Allocation										
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
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

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
Total		12,114	12,114	12,114	-3,210	-2,498	-1,729	8,904	9,616	10,385
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.

2014 Total	0	-3,210	0	-3,210	0.0	
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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
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

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2015 Total	0	-2,498	0	-2,498	0.0	
2016	0	-3,210	0	-3,210	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>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.</p>						
2016	0	712	0	712	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>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.</p>						
2016	0	769	0	769	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 & 2016 escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.</p> <p>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.</p>						
2016 Total	0	-1,729	0	-1,729	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

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	10,131	9,735	9,807	9,758	12,114
NSE	0	0	0	0	0
Total	10,131	9,735	9,807	9,758	12,114
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	10,131	9,735	9,807	9,758	12,114
NSE	0	0	0	0	0
Total	10,131	9,735	9,807	9,758	12,114
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	961	689	382	169	0
NSE	0	0	0	0	0
Total	961	689	382	169	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	0	0
Non-Labor	11,091	10,424	10,190	9,927	12,114
NSE	0	0	0	0	0
Total	11,091	10,424	10,190	9,927	12,114
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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		1,670	859	468	100	15	15	15	15	
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
Total Incurred	14	0	0	14	0.20	14	0	0	14	0.20
% Allocation										
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
Total Incurred	14	0	0	14	0.20	14	0	0	14	0.20
% Allocation										
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: 2100-3105.000 - 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.

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

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
Total		15	15	15	0	0	0	15	15	15
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3105.000 - STORAGE AND ADMINISTRATION

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	1,227	965	578	295	13
Non-Labor	360	-66	38	11	0
NSE	0	0	0	0	0
Total	1,588	899	616	306	13
FTE	13.3	10.2	5.9	3.4	0.2
Adjustments (Nominal \$) **					
Labor	-211	-211	-211	-211	0
Non-Labor	-9	-6	-9	-9	0
NSE	0	0	0	0	0
Total	-220	-217	-220	-220	0
FTE	-3.0	-3.0	-3.0	-3.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	1,017	754	367	85	13
Non-Labor	351	-72	29	2	0
NSE	0	0	0	0	0
Total	1,368	683	397	86	13
FTE	10.3	7.2	2.9	0.4	0.2
Vacation & Sick (Nominal \$)					
Labor	157	120	54	12	2
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	157	120	54	12	2
FTE	1.7	1.2	0.5	0.1	0.0
Escalation to 2013\$					
Labor	111	62	16	2	0
Non-Labor	33	-5	1	0	0
NSE	0	0	0	0	0
Total	145	57	18	2	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	1,285	936	438	98	14
Non-Labor	385	-77	30	2	0
NSE	0	0	0	0	0
Total	1,670	859	468	100	15
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.

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

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
Total	-220	-217	-220	-220	0
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							
2009 Total	-211	-9	0	-3.0			
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 Total	-211	-6	0	-3.0			

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: 2100-3105.000 - 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>
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							
2011 Total	-211	-9	0	-3.0			
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							
2012 Total	-211	-9	0	-3.0			
2013 Total	0	0	0	0.0			

Note: Totals may include rounding differences.

Beginning of Workpaper
2100-3106.000 - NETWORK/TELECOM SERVICES - SDG&E

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

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	
Total		6,249	6,611	6,661	6,674	5,842	6,408	6,921	7,475	
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: 2100-3106.000 - 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
Total Incurred	0	5,842	0	5,842	0.00	0	6,408	0	6,408	0.00
% Allocation										
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
Total Incurred	0	6,921	0	6,921	0.00	0	7,475	0	7,475	0.00
% Allocation										
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: 2100-3106.000 - 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.

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

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
Total		5,842	5,842	5,842	566	1,079	1,633	6,408	6,921	7,475
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.

2014 Total	0	566	0	566	0.0	
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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.

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>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2015 Total	0	1,079	0	1,079	0.0	

2016 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.

2016 0 513 0 513 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 0 554 0 554 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 Total	0	1,633	0	1,633	0.0	
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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

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	5,206	5,606	5,823	6,561	5,842
NSE	0	0	0	0	0
Total	5,206	5,606	5,823	6,561	5,842
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	502	568	588	0	0
NSE	0	0	0	0	0
Total	502	568	588	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	5,708	6,174	6,411	6,561	5,842
NSE	0	0	0	0	0
Total	5,708	6,174	6,411	6,561	5,842
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	541	437	250	113	0
NSE	0	0	0	0	0
Total	541	437	250	113	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	0	0
Non-Labor	6,249	6,611	6,661	6,674	5,842
NSE	0	0	0	0	0
Total	6,249	6,611	6,661	6,674	5,842
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: 2100-3106.000 - 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
Total	502	568	588	0	0
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).							

2009 Total	0	502	0	0.0			
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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).							

2010 Total	0	568	0	0.0			
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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).							

2011 Total	0	588	0	0.0			
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2012 Total	0	0	0	0.0			
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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>
2013 Total	0	0	0	0.0			

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	
Total		631	741	856	798	1,131	1,131	1,131	1,131	
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
Total Incurred	1,003	129	0	1,132	10.59	1,003	129	0	1,132	10.59
% Allocation										
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
Total Incurred	1,003	129	0	1,132	10.59	1,003	129	0	1,132	10.59
% Allocation										
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: 2100-3107.000 - 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
Total		1,131	1,131	1,131	0	0	0	1,131	1,131	1,131
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3107.000 - ENTERPRISE OPERATIONS

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	766	860	948	899	865
Non-Labor	47	51	89	107	129
NSE	0	0	0	0	0
Total	813	911	1,037	1,006	994
FTE	8.3	9.5	10.1	9.6	9.0
Adjustments (Nominal \$) **					
Labor	-297	-297	-297	-297	0
Non-Labor	-12	-12	-12	-12	0
NSE	0	0	0	0	0
Total	-309	-309	-309	-309	0
FTE	-3.0	-3.0	-3.0	-3.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	469	563	651	602	865
Non-Labor	35	39	77	95	129
NSE	0	0	0	0	0
Total	504	602	728	697	994
FTE	5.3	6.5	7.1	6.6	9.0
Vacation & Sick (Nominal \$)					
Labor	72	90	96	87	137
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	72	90	96	87	137
FTE	0.9	1.1	1.2	1.1	1.6
Escalation to 2013\$					
Labor	51	46	29	12	0
Non-Labor	3	3	3	2	0
NSE	0	0	0	0	0
Total	55	49	32	14	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	593	699	776	701	1,002
Non-Labor	38	42	80	97	129
NSE	0	0	0	0	0
Total	631	741	856	798	1,131
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
Total	-309	-309	-309	-309	0
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							
2009 Total	-297	-12	0	-3.0			
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							
2010 Total	-297	-12	0	-3.0			
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>
2011 Total	-297	-12	0	-3.0			
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							
2012 Total	-297	-12	0	-3.0			
2013 Total	0	0	0	0.0			

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	445	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	
Total		472	467	427	1,042	838	838	838	838	
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
Total Incurred	763	75	0	838	8.28	763	75	0	838	8.28
% Allocation										
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
Total Incurred	763	75	0	838	8.28	763	75	0	838	8.28
% Allocation										
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
Total		838	838	838	0	0	0	838	838	838
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3334.000 - SERVER MANAGEMENT

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	337	359	350	720	658
Non-Labor	42	20	10	200	76
NSE	0	0	0	0	0
Total	379	379	359	920	734
FTE	3.9	4.3	4.0	7.3	7.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	337	359	350	720	658
Non-Labor	42	20	10	200	76
NSE	0	0	0	0	0
Total	379	379	359	920	734
FTE	3.9	4.3	4.0	7.3	7.0
Vacation & Sick (Nominal \$)					
Labor	52	57	52	104	104
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	52	57	52	104	104
FTE	0.7	0.7	0.6	1.2	1.2
Escalation to 2013\$					
Labor	37	29	16	14	0
Non-Labor	4	1	0	3	0
NSE	0	0	0	0	0
Total	41	31	16	18	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	425	445	417	839	762
Non-Labor	46	22	10	203	76
NSE	0	0	0	0	0
Total	472	467	427	1,042	838
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	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		492	407	177	258	50	50	50	50	
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
Total Incurred	31	20	0	51	0.28	31	20	0	51	0.28
% Allocation										
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
Total Incurred	31	20	0	51	0.28	31	20	0	51	0.28
% Allocation										
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
Total		50	50	50	0	0	0	50	50	50
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3335.000 - UNIX SERVER GROUP

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	702	647	547	611	26
Non-Labor	44	36	30	41	20
NSE	0	0	0	0	0
Total	746	684	578	652	46
FTE	7.2	6.2	5.1	5.7	0.2
Adjustments (Nominal \$) **					
Labor	-338	-338	-410	-410	0
Non-Labor	-15	-15	-18	-18	0
NSE	0	0	0	0	0
Total	-353	-353	-428	-428	0
FTE	-3.0	-3.0	-4.0	-4.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	364	310	138	201	26
Non-Labor	29	21	12	23	20
NSE	0	0	0	0	0
Total	393	331	150	224	46
FTE	4.2	3.2	1.1	1.7	0.2
Vacation & Sick (Nominal \$)					
Labor	56	49	20	29	4
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	56	49	20	29	4
FTE	0.7	0.6	0.2	0.3	0.0
Escalation to 2013\$					
Labor	40	25	6	4	0
Non-Labor	3	1	0	0	0
NSE	0	0	0	0	0
Total	43	27	7	4	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	460	384	164	234	30
Non-Labor	32	23	13	23	20
NSE	0	0	0	0	0
Total	492	407	177	258	50
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
Total	-353	-353	-428	-428	0
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							
2009 Total	-338	-15	0	-3.0			
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							
2010 Total	-338	-15	0	-3.0			

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: 2100-3335.000 - 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							
2011 Total	-410	-18	0	-4.0			
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							
2012 Total	-410	-18	0	-4.0			
2013 Total	0	0	0	0.0			

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	
Total		9,889	9,839	8,996	6,649	3,232	4,604	4,972	5,370	
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
Total Incurred	0	3,232	0	3,232	0.00	0	4,604	0	4,604	0.00
% Allocation										
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
Total Incurred	0	4,972	0	4,972	0.00	0	5,370	0	5,370	0.00
% Allocation										
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
Total		3,232	3,232	3,232	1,372	1,740	2,138	4,604	4,972	5,370
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.

2014 Total	0	1,372	0	1,372	0.0	
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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.

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

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2015 Total	0	1,740	0	1,740	0.0	
2016	0	1,372	0	1,372	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 & 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 & 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 & 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 Total	0	2,138	0	2,138	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

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	9,033	9,188	8,658	6,536	3,232
NSE	0	0	0	0	0
Total	9,033	9,188	8,658	6,536	3,232
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	9,033	9,188	8,658	6,536	3,232
NSE	0	0	0	0	0
Total	9,033	9,188	8,658	6,536	3,232
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	856	650	337	113	0
NSE	0	0	0	0	0
Total	856	650	337	113	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	0	0
Non-Labor	9,889	9,839	8,996	6,649	3,232
NSE	0	0	0	0	0
Total	9,889	9,839	8,996	6,649	3,232
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: 2100-3494.000 - 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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		5,905	5,830	5,938	6,441	5,701	6,077	6,563	7,088	
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: 2100-3495.000 - 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
Total Incurred	0	5,701	0	5,701	0.00	0	6,077	0	6,077	0.00
% Allocation										
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
Total Incurred	0	6,563	0	6,563	0.00	0	7,088	0	7,088	0.00
% Allocation										
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: 2100-3495.000 - 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.

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

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
Total		5,701	5,701	5,701	376	862	1,387	6,077	6,563	7,088
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.

2014 Total	0	376	0	376	0.0	
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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.

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

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2015 Total	0	862	0	862	0.0	
2016	0	376	0	376	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 & 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 & 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 & 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 Total	0	1,387	0	1,387	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: 2100-3495.000 - MAINFRAME CONTRACTS

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	5,394	5,445	5,716	6,331	5,701
NSE	0	0	0	0	0
Total	5,394	5,445	5,716	6,331	5,701
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	5,394	5,445	5,716	6,331	5,701
NSE	0	0	0	0	0
Total	5,394	5,445	5,716	6,331	5,701
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	511	385	223	109	0
NSE	0	0	0	0	0
Total	511	385	223	109	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	0	0
Non-Labor	5,905	5,830	5,938	6,441	5,701
NSE	0	0	0	0	0
Total	5,905	5,830	5,938	6,441	5,701
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: 2100-3495.000 - 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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	583	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	
Total		673	616	107	155	298	298	298	298	
FTE		5.3	4.9	0.6	0.8	2.0	2.0	2.0	2.0	

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: 2100-3498.000 - 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
Total Incurred	286	12	0	298	2.03	286	12	0	298	2.03
% Allocation										
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
Total Incurred	286	12	0	298	2.03	286	12	0	298	2.03
% Allocation										
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: 2100-3498.000 - 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.

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

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
Total		298	298	298	0	0	0	298	298	298
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3498.000 - INFRASTRUCTURE PROGRAM OFFICE

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	620	580	176	220	247
Non-Labor	29	33	31	30	12
NSE	0	0	0	0	0
Total	649	614	207	250	259
FTE	5.5	5.2	1.5	1.7	1.7
Adjustments (Nominal \$) **					
Labor	-110	-110	-110	-110	0
Non-Labor	-3	-3	-3	-3	0
NSE	0	0	0	0	0
Total	-113	-113	-113	-113	0
FTE	-1.0	-1.0	-1.0	-1.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	509	470	66	109	247
Non-Labor	26	30	28	27	12
NSE	0	0	0	0	0
Total	536	500	93	136	259
FTE	4.5	4.2	0.5	0.7	1.7
Vacation & Sick (Nominal \$)					
Labor	79	75	10	16	39
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	79	75	10	16	39
FTE	0.8	0.7	0.1	0.1	0.3
Escalation to 2013\$					
Labor	56	39	3	2	0
Non-Labor	2	2	1	0	0
NSE	0	0	0	0	0
Total	58	41	4	3	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	644	583	78	127	286
Non-Labor	29	32	29	27	12
NSE	0	0	0	0	0
Total	673	616	107	155	298
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.

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

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-110	-110	-110	-110	0
Non-Labor	-3	-3	-3	-3	0
NSE	0	0	0	0	0
Total	-113	-113	-113	-113	0
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							
2009 Total	-110	-3	0	-1.0			
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 Total	-110	-3	0	-1.0			
2011	-110	-3	0	-1.0	CCTR Transf	To 2200-2495.000	FFIGUERO20131 031141238353
IT Employee Transfer from SDGE to SCG as of 2013							
2011 Total	-110	-3	0	-1.0			
2012	-110	-3	0	-1.0	CCTR Transf	To 2200-2495.000	FFIGUERO20131 031141331593
IT Employee Transfer from SDGE to SCG as of 2013							
2012 Total	-110	-3	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: B. Infrastructure
Category-Sub: 1. Infrastructure
Cost Center: 2100-3498.000 - INFRASTRUCTURE PROGRAM 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>
2013 Total	0	0	0	0.0			

Note: Totals may include rounding differences.

Beginning of Workpaper
2100-3500.000 - IT NETWORK FIELD - LAN/WAN VOICE

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

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		
Total	510	185	272	428	319	319	319	319		
FTE	4.5	1.4	2.1	3.6	3.9	3.9	3.9	3.9		

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: B. Infrastructure
 Category-Sub: 1. Infrastructure
 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
Total Incurred	304	15	0	319	3.87	304	15	0	319	3.87
% Allocation										
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
Total Incurred	304	15	0	319	3.87	304	15	0	319	3.87
% Allocation										
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.

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

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.

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

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.

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: 2100-3500.000 - 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
Total		319	319	319	0	0	0	319	319	319
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3500.000 - IT NETWORK FIELD - LAN/WAN VOICE

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	731	568	620	754	262
Non-Labor	123	78	109	114	15
NSE	0	0	0	0	0
Total	853	646	729	868	278
FTE	8.8	7.2	7.8	9.1	3.3
Adjustments (Nominal \$) **					
Labor	-418	-468	-468	-468	0
Non-Labor	-18	-21	-21	-21	0
NSE	0	0	0	0	0
Total	-436	-489	-489	-489	0
FTE	-5.0	-6.0	-6.0	-6.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	313	100	152	286	262
Non-Labor	105	57	88	93	15
NSE	0	0	0	0	0
Total	417	157	239	379	278
FTE	3.8	1.2	1.8	3.1	3.3
Vacation & Sick (Nominal \$)					
Labor	48	16	22	41	42
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	48	16	22	41	42
FTE	0.6	0.2	0.3	0.5	0.6
Escalation to 2013\$					
Labor	34	8	7	6	0
Non-Labor	10	4	3	2	0
NSE	0	0	0	0	0
Total	44	12	10	7	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	395	124	181	333	304
Non-Labor	115	61	91	94	15
NSE	0	0	0	0	0
Total	510	185	272	428	319
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
Total	-436	-489	-489	-489	0
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							
2009 Total	-418	-18	0	-5.0			
2010	-468	-21	0	-6.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031141610440
IT Employee Transfer from SDGE to SCG as of 2013							
2010 Total	-468	-21	0	-6.0			
2011	-468	-21	0	-6.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031141654003
IT Employee Transfer from SDGE to SCG as of 2013							
2011 Total	-468	-21	0	-6.0			
2012	-468	-21	0	-6.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031141726467
IT Employee Transfer from SDGE to SCG as of 2013							
2012 Total	-468	-21	0	-6.0			

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: 2100-3500.000 - 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>
2013 Total	0	0	0	0.0			

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	
Total		3,507	2,485	2,852	1,130	1,066	1,075	1,161	1,254	
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: 2100-3501.000 - 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
Total Incurred	0	1,066	0	1,066	0.00	0	1,075	0	1,075	0.00
% Allocation										
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
Total Incurred	0	1,161	0	1,161	0.00	0	1,254	0	1,254	0.00
% Allocation										
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
 Category-Sub: 1. Infrastructure
 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
Total		1,066	1,066	1,066	9	95	188	1,075	1,161	1,254
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.

2014 Total	0	9	0	9	0.0	
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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.

2015 Total	0	95	0	95	0.0	
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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.

2016 Total	0	188	0	188	0.0	
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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)
Recorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	3,156	2,271	2,745	1,111	1,066
NSE	0	0	0	0	0
Total	3,156	2,271	2,745	1,111	1,066
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	48	50	0	0	0
NSE	0	0	0	0	0
Total	48	50	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	3,204	2,321	2,745	1,111	1,066
NSE	0	0	0	0	0
Total	3,204	2,321	2,745	1,111	1,066
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	304	164	107	19	0
NSE	0	0	0	0	0
Total	304	164	107	19	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	0	0
Non-Labor	3,507	2,485	2,852	1,130	1,066
NSE	0	0	0	0	0
Total	3,507	2,485	2,852	1,130	1,066
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
Total	48	50	0	0	0
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.

2009 Total	0	48	0	0.0			
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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.

2010 Total	0	50	0	0.0			
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2011 Total	0	0	0	0.0			
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2012 Total	0	0	0	0.0			
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2013 Total	0	0	0	0.0			
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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		
Total	1,880	1,734	2,023	2,120	1,909	1,909	1,909	1,909		
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
Total Incurred	1,843	66	0	1,909	22.49	1,843	66	0	1,909	22.49
% Allocation										
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
Total Incurred	1,843	66	0	1,909	22.49	1,843	66	0	1,909	22.49
% Allocation										
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
Total		1,909	1,909	1,909	0	0	0	1,909	1,909	1,909
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3502.000 - ENTERPRISE COMMAND CENTER

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	1,457	1,384	1,772	1,720	1,590
Non-Labor	149	129	28	229	66
NSE	0	0	0	0	0
Total	1,606	1,514	1,800	1,948	1,656
FTE	18.5	17.7	22.2	20.7	19.1
Adjustments (Nominal \$) **					
Labor	-96	-96	-96	-96	0
Non-Labor	-3	-3	-3	-3	0
NSE	0	0	0	0	0
Total	-99	-99	-99	-99	0
FTE	-1.0	-1.0	-1.0	-1.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	1,361	1,288	1,675	1,623	1,590
Non-Labor	146	126	25	226	66
NSE	0	0	0	0	0
Total	1,507	1,414	1,701	1,849	1,656
FTE	17.5	16.7	21.2	19.7	19.1
Vacation & Sick (Nominal \$)					
Labor	210	205	247	235	252
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	210	205	247	235	252
FTE	2.9	2.9	3.5	3.2	3.4
Escalation to 2013\$					
Labor	149	106	75	32	0
Non-Labor	14	9	1	4	0
NSE	0	0	0	0	0
Total	163	115	76	36	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	1,720	1,599	1,997	1,891	1,842
Non-Labor	160	135	26	230	66
NSE	0	0	0	0	0
Total	1,880	1,734	2,023	2,120	1,909
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
Total	-99	-99	-99	-99	0
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							
2009 Total	-96	-3	0	-1.0			
2010	-96	-3	0	-1.0	CCTR Transf	To 2200-2456.000	FFIGUERO20131 031141901040
IT Employee Transfer from SDGE to SCG as of 2013							
2010 Total	-96	-3	0	-1.0			
2011	-96	-3	0	-1.0	CCTR Transf	To 2200-2456.000	FFIGUERO20131 031141945323
IT Employee Transfer from SDGE to SCG as of 2013							
2011 Total	-96	-3	0	-1.0			
2012	-96	-3	0	-1.0	CCTR Transf	To 2200-2456.000	FFIGUERO20131 031142021560
IT Employee Transfer from SDGE to SCG as of 2013							
2012 Total	-96	-3	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: 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>
2013 Total	0	0	0	0.0			

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	
Total		890	970	735	705	38	38	38	38	
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
Total Incurred	34	4	0	38	0.42	34	4	0	38	0.42
% Allocation										
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
Total Incurred	34	4	0	38	0.42	34	4	0	38	0.42
% Allocation										
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
Total		38	38	38	0	0	0	38	38	38
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3544.000 - WINTEL SERVER GROUP

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	1,095	1,179	1,048	1,070	29
Non-Labor	116	109	69	31	4
NSE	0	0	0	0	0
Total	1,211	1,288	1,117	1,101	33
FTE	15.0	15.8	14.0	13.6	0.4
Adjustments (Nominal \$) **					
Labor	-471	-471	-471	-471	0
Non-Labor	-24	-24	-24	-24	0
NSE	0	0	0	0	0
Total	-495	-495	-495	-495	0
FTE	-6.0	-6.0	-6.0	-6.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	624	708	577	599	29
Non-Labor	92	85	45	7	4
NSE	0	0	0	0	0
Total	716	793	622	606	33
FTE	9.0	9.8	8.0	7.6	0.4
Vacation & Sick (Nominal \$)					
Labor	96	113	85	87	5
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	96	113	85	87	5
FTE	1.5	1.7	1.3	1.2	0.1
Escalation to 2013\$					
Labor	68	58	26	12	0
Non-Labor	9	6	2	0	0
NSE	0	0	0	0	0
Total	77	64	28	12	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	789	879	688	697	34
Non-Labor	101	91	46	7	4
NSE	0	0	0	0	0
Total	890	970	735	705	38
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
Total	-495	-495	-495	-495	0
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							
2009 Total	-471	-24	0	-6.0			
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							
2010 Total	-471	-24	0	-6.0			
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

Area: INFORMATION TECHNOLOGY
 Witness: Stephen J. Mikovits
 Category: B. Infrastructure
 Category-Sub: 1. Infrastructure
 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>
2011 Total	-471	-24	0	-6.0			
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
2012 Total	-471	-24	0	-6.0			
2013 Total	0	0	0	0.0			

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	
Total		534	532	609	727	236	236	236	236	
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
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

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
Total Incurred	161	75	0	236	1.71	161	75	0	236	1.71
% Allocation										
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
Total Incurred	161	75	0	236	1.71	161	75	0	236	1.71
% Allocation										
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: 2100-3548.000 - 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.

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

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
Total		236	236	236	0	0	0	236	236	236
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3548.000 - ENT SVC MGT & HELP DESK

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	615	641	710	733	139
Non-Labor	47	25	40	142	75
NSE	0	0	0	0	0
Total	662	665	750	876	214
FTE	6.9	7.0	7.6	7.7	1.5
Adjustments (Nominal \$) **					
Labor	-226	-226	-226	-226	0
Non-Labor	-9	-9	-9	-9	0
NSE	0	0	0	0	0
Total	-235	-235	-235	-235	0
FTE	-2.0	-2.0	-2.0	-2.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	389	415	484	508	139
Non-Labor	38	16	31	133	75
NSE	0	0	0	0	0
Total	428	431	515	641	214
FTE	4.9	5.0	5.6	5.7	1.5
Vacation & Sick (Nominal \$)					
Labor	60	66	71	74	22
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	60	66	71	74	22
FTE	0.8	0.9	0.9	0.9	0.3
Escalation to 2013\$					
Labor	43	34	22	10	0
Non-Labor	4	1	1	2	0
NSE	0	0	0	0	0
Total	46	35	23	12	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	492	515	577	591	161
Non-Labor	42	17	32	135	75
NSE	0	0	0	0	0
Total	534	532	609	727	236
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.

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

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
Total	-235	-235	-235	-235	0
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							
2009 Total	-226	-9	0	-2.0			
2010	-226	-9	0	-2.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031142810107
IT Employee Transfer from SDGE to SCG as of 2013							
2010 Total	-226	-9	0	-2.0			
2011	-226	-9	0	-2.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031142851530
IT Employee Transfer from SDGE to SCG as of 2013							
2011 Total	-226	-9	0	-2.0			
2012	-226	-9	0	-2.0	CCTR Transf	To 2200-2455.000	FFIGUERO20131 031142920657
IT Employee Transfer from SDGE to SCG as of 2013							
2012 Total	-226	-9	0	-2.0			

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: 2100-3548.000 - 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
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

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	
Total		137	35	60	232	321	321	321	321	
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
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

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
Total Incurred	298	23	0	321	2.66	298	23	0	321	2.66
% Allocation										
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
Total Incurred	298	23	0	321	2.66	298	23	0	321	2.66
% Allocation										
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: 2100-3682.000 - 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.

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

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
Total		321	321	321	0	0	0	321	321	321
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3682.000 - PROJECT MANAGEMENT OFFICE-NCS

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	196	123	103	99	258
Non-Labor	23	14	63	238	23
NSE	0	0	0	0	0
Total	219	137	166	337	280
FTE	1.9	1.2	0.7	0.6	2.3
Adjustments (Nominal \$) **					
Labor	-105	-105	-105	-105	0
Non-Labor	-3	-3	-3	-3	0
NSE	0	0	0	0	0
Total	-108	-108	-108	-108	0
FTE	-1.0	-1.0	-1.0	-1.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	91	18	-2	-6	258
Non-Labor	20	11	60	235	23
NSE	0	0	0	0	0
Total	111	30	58	229	280
FTE	0.9	0.2	-0.3	-0.4	2.3
Vacation & Sick (Nominal \$)					
Labor	14	3	0	-1	41
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	14	3	0	-1	41
FTE	0.2	0.0	0.0	-0.1	0.4
Escalation to 2013\$					
Labor	10	1	0	0	0
Non-Labor	2	1	2	4	0
NSE	0	0	0	0	0
Total	12	2	2	4	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	115	23	-3	-6	299
Non-Labor	22	12	62	239	23
NSE	0	0	0	0	0
Total	137	35	60	232	321
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.

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

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
Total	-108	-108	-108	-108	0
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							
2009 Total	-105	-3	0	-1.0			
2010	-105	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031143159047
IT Employee Transfer from SDGE to SCG as of 2013							
2010 Total	-105	-3	0	-1.0			
2011	-105	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031143241693
IT Employee Transfer from SDGE to SCG as of 2013							
2011 Total	-105	-3	0	-1.0			
2012	-105	-3	0	-1.0	CCTR Transf	To 2200-2463.000	FFIGUERO20131 031143321297
IT Employee Transfer from SDGE to SCG as of 2013							
2012 Total	-105	-3	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: 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>
2013 Total	0	0	0	0.0			

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	
Total		303	216	180	940	1,094	1,094	1,094	1,094	
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
Total Incurred	956	138	0	1,094	10.05	956	138	0	1,094	10.05
% Allocation										
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
Total Incurred	956	138	0	1,094	10.05	956	138	0	1,094	10.05
% Allocation										
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
Total		1,094	1,094	1,094	0	0	0	1,094	1,094	1,094
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3683.000 - PROJECT IMPROVEMENT OFFICE-NCS

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	223	142	109	699	825
Non-Labor	20	36	47	123	138
NSE	0	0	0	0	0
Total	242	179	157	822	963
FTE	2.8	1.5	1.1	7.1	8.5
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	223	142	109	699	825
Non-Labor	20	36	47	123	138
NSE	0	0	0	0	0
Total	242	179	157	822	963
FTE	2.8	1.5	1.1	7.1	8.5
Vacation & Sick (Nominal \$)					
Labor	34	23	16	101	131
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	34	23	16	101	131
FTE	0.5	0.3	0.2	1.2	1.5
Escalation to 2013\$					
Labor	24	12	5	14	0
Non-Labor	2	3	2	2	0
NSE	0	0	0	0	0
Total	26	14	7	16	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	281	177	130	815	956
Non-Labor	22	39	49	125	138
NSE	0	0	0	0	0
Total	303	216	180	940	1,094
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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		1,248	1,470	1,281	1,416	422	422	422	422	
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
Total Incurred	355	67	0	422	3.89	355	67	0	422	3.89
% Allocation										
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
Total Incurred	355	67	0	422	3.89	355	67	0	422	3.89
% Allocation										
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
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 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
Total		422	422	422	0	0	0	422	422	422
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3684.000 - SERVICE DELIVERY - NCS

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	1,010	1,203	1,244	1,239	307
Non-Labor	299	305	130	297	67
NSE	0	0	0	0	0
Total	1,309	1,508	1,373	1,535	374
FTE	11.7	13.3	14.4	14.3	3.3
Adjustments (Nominal \$) **					
Labor	-272	-272	-272	-272	0
Non-Labor	-12	-12	-12	-12	0
NSE	0	0	0	0	0
Total	-284	-284	-284	-284	0
FTE	-3.0	-3.0	-3.0	-3.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	738	932	972	967	307
Non-Labor	287	293	118	285	67
NSE	0	0	0	0	0
Total	1,026	1,225	1,090	1,252	374
FTE	8.7	10.3	11.4	11.3	3.3
Vacation & Sick (Nominal \$)					
Labor	114	148	143	140	49
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	114	148	143	140	49
FTE	1.5	1.8	1.9	1.8	0.6
Escalation to 2013\$					
Labor	81	76	43	19	0
Non-Labor	27	21	5	5	0
NSE	0	0	0	0	0
Total	108	97	48	24	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	933	1,156	1,159	1,127	355
Non-Labor	315	314	122	290	67
NSE	0	0	0	0	0
Total	1,248	1,470	1,281	1,416	422
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
Total	-284	-284	-284	-284	0
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							
2009 Total	-272	-12	0	-3.0			
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							
2010 Total	-272	-12	0	-3.0			
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							
2011 Total	-272	-12	0	-3.0			
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							
2012 Total	-272	-12	0	-3.0			
2013 Total	0	0	0	0.0			

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	704	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	
Total		368	770	852	1,006	-9	-9	230	469	
FTE		2.8	6.5	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
Total Incurred	-10	2	0	-8	-0.10	-10	2	0	-8	-0.10
% Allocation										
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
Total Incurred	209	22	0	231	2.10	428	42	0	470	4.20
% Allocation										
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
Total		-9	-9	-9	0	239	478	-9	230	469
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>
2014 Total	0	0	0	0	0.0	

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.

2015 Total	219	20	0	239	2.2	
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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

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.

2016 Total	438	40	0	478	4.3	
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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)
Recorded (Nominal \$)*					
Labor	247	567	667	829	-9
Non-Labor	51	61	55	39	2
NSE	0	0	0	0	0
Total	298	628	722	869	-7
FTE	2.4	5.5	6.9	8.0	-0.1
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	247	567	667	829	-9
Non-Labor	51	61	55	39	2
NSE	0	0	0	0	0
Total	298	628	722	869	-7
FTE	2.4	5.5	6.9	8.0	-0.1
Vacation & Sick (Nominal \$)					
Labor	38	90	98	120	-1
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	38	90	98	120	-1
FTE	0.4	1.0	1.1	1.3	0.0
Escalation to 2013\$					
Labor	27	47	30	16	0
Non-Labor	5	4	2	1	0
NSE	0	0	0	0	0
Total	32	51	32	17	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	313	704	795	966	-10
Non-Labor	55	65	57	40	2
NSE	0	0	0	0	0
Total	368	770	852	1,006	-9
FTE	2.8	6.5	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	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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 - INFRAST 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	
Total		0	0	412	524	217	217	217	217	
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
Total Incurred	203	14	0	217	1.59	203	14	0	217	1.60
% Allocation										
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
Total Incurred	203	14	0	217	1.60	203	14	0	217	1.60
% Allocation										
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
Total		217	217	217	0	0	0	217	217	217
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3824.000 - INFRAST PRGRM OFFICE

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	331	325	175
Non-Labor	0	0	17	143	14
NSE	0	0	0	0	0
Total	0	0	348	468	190
FTE	0.0	0.0	2.8	2.6	1.3
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	331	325	175
Non-Labor	0	0	17	143	14
NSE	0	0	0	0	0
Total	0	0	348	468	190
FTE	0.0	0.0	2.8	2.6	1.3
Vacation & Sick (Nominal \$)					
Labor	0	0	49	47	28
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	49	47	28
FTE	0.0	0.0	0.5	0.4	0.2
Escalation to 2013\$					
Labor	0	0	15	6	0
Non-Labor	0	0	1	2	0
NSE	0	0	0	0	0
Total	0	0	15	9	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	395	379	203
Non-Labor	0	0	17	145	14
NSE	0	0	0	0	0
Total	0	0	412	524	217
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.

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

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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		0	0	277	992	16	16	16	16	
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
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 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
Total Incurred	0	17	0	17	-0.01	0	17	0	17	-0.01
% Allocation										
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
Total Incurred	0	17	0	17	-0.01	0	17	0	17	-0.01
% Allocation										
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
Total		16	16	16	0	0	0	16	16	16
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 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3835.000 - SDGE NETWRK INTEGRA

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	185	580	0
Non-Labor	0	0	54	311	17
NSE	0	0	0	0	0
Total	0	0	239	891	16
FTE	0.0	0.0	2.0	6.7	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	185	580	0
Non-Labor	0	0	54	311	17
NSE	0	0	0	0	0
Total	0	0	239	891	16
FTE	0.0	0.0	2.0	6.7	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	27	84	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	27	84	0
FTE	0.0	0.0	0.3	1.1	0.0
Escalation to 2013\$					
Labor	0	0	8	11	0
Non-Labor	0	0	2	5	0
NSE	0	0	0	0	0
Total	0	0	10	17	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	220	676	0
Non-Labor	0	0	56	316	17
NSE	0	0	0	0	0
Total	0	0	277	992	16
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
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

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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		0	0	0	514	1	1	1	1	
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
Total Incurred	1	0	0	1	0.01	1	0	0	1	0.01
% Allocation										
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
Total Incurred	1	0	0	1	0.01	1	0	0	1	0.01
% Allocation										
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
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

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
Total		1	1	1	0	0	0	1	1	1
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 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	417	1
Non-Labor	0	0	0	27	0
NSE	0	0	0	0	0
Total	0	0	0	444	1
FTE	0.0	0.0	0.0	4.9	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	417	1
Non-Labor	0	0	0	27	0
NSE	0	0	0	0	0
Total	0	0	0	444	1
FTE	0.0	0.0	0.0	4.9	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	60	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	60	0
FTE	0.0	0.0	0.0	0.8	0.0
Escalation to 2013\$					
Labor	0	0	0	8	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	9	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	486	1
Non-Labor	0	0	0	28	0
NSE	0	0	0	0	0
Total	0	0	0	514	1
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.

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

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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		0	0	0	4,258	5,471	4,514	4,875	5,265	
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: 2100-3855.000 - 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
Total Incurred	0	5,471	0	5,471	0.00	0	4,514	0	4,514	0.00
% Allocation										
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
Total Incurred	0	4,875	0	4,875	0.00	0	5,265	0	5,265	0.00
% Allocation										
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
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

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
Total		5,471	5,471	5,471	-957	-596	-206	4,514	4,875	5,265
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.

2014 Total	0	-957	0	-957	0.0	
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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
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

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	0	0	0	1,525	5,471
NSE	0	0	0	0	0
Total	0	0	0	1,525	5,471
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	2,660	0
NSE	0	0	0	0	0
Total	0	0	0	2,660	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	4,186	5,471
NSE	0	0	0	0	0
Total	0	0	0	4,186	5,471
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	0	0	0	72	0
NSE	0	0	0	0	0
Total	0	0	0	72	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	4,258	5,471
NSE	0	0	0	0	0
Total	0	0	0	4,258	5,471
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: 2100-3855.000 - 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
Total	0	0	0	2,660	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
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.							
2012 Total	0	2,660	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		0	0	0	413	900	1,069	1,155	1,247	
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
Total Incurred	0	900	0	900	0.00	0	1,069	0	1,069	0.00
% Allocation										
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
Total Incurred	0	1,155	0	1,155	0.00	0	1,247	0	1,247	0.00
% Allocation										
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: 2100-3856.000 - 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.

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

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.

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

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
Total		900	900	900	169	255	347	1,069	1,155	1,247
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.

2014 Total	0	169	0	169	0.0	
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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.

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

<u>Year/Expl.</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2015 Total	0	255	0	255	0.0	
2016	0	169	0	169	0.0	1-Sided Adj
<p>2014 adjustment to current contractual obligations. 2015 & 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 & 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 & 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 Total	0	347	0	347	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

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	0	0	0	406	900
NSE	0	0	0	0	0
Total	0	0	0	406	900
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	406	900
NSE	0	0	0	0	0
Total	0	0	0	406	900
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	0	0	0	7	0
NSE	0	0	0	0	0
Total	0	0	0	7	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	413	900
NSE	0	0	0	0	0
Total	0	0	0	413	900
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: 2100-3856.000 - 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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

Note: Totals may include rounding differences.

Beginning of Workpaper
2100-3859.000 - SDGE PERSONAL OWNED DEVICE ALLOWANCE

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: 2100-3859.000 - 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	
Total		0	0	0	25	327	528	570	616	
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: 2100-3859.000 - 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
Total Incurred	0	327	0	327	0.00	0	528	0	528	0.00
% Allocation										
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
Total Incurred	0	570	0	570	0.00	0	616	0	616	0.00
% Allocation										
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.

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: 2100-3859.000 - 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.

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: 2100-3859.000 - 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
Total		327	327	327	201	243	289	528	570	616
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.

2014 Total	0	201	0	201	0.0	
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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.

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: 2100-3859.000 - 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>
2015 Total	0	243	0	243	0.0	

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.

2016 Total	0	289	0	289	0.0	
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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: 2100-3859.000 - SDGE PERSONAL OWNED DEVICE ALLOWANCE

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	0	0	0	25	327
NSE	0	0	0	0	0
Total	0	0	0	25	327
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	25	327
NSE	0	0	0	0	0
Total	0	0	0	25	327
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	25	327
NSE	0	0	0	0	0
Total	0	0	0	25	327
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: 2100-3859.000 - 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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		0	0	0	0	888	890	961	1,038	
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
Total Incurred	0	888	0	888	0.00	0	890	0	890	0.00
% Allocation										
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
Total Incurred	0	961	0	961	0.00	0	1,038	0	1,038	0.00
% Allocation										
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
Total		888	888	888	2	73	150	890	961	1,038
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	2	0	2	0.0	1-Sided Adj

Department reorganizational changes \$2k NL adjustment.

2014 Total	0	2	0	2	0.0	
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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.

2015 Total	0	73	0	73	0.0	
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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.

2016 Total	0	150	0	150	0.0	
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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)
Recorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	888
NSE	0	0	0	0	0
Total	0	0	0	0	888
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	888
NSE	0	0	0	0	0
Total	0	0	0	0	888
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	888
NSE	0	0	0	0	0
Total	0	0	0	0	888
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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		0	0	0	0	430	430	430	430	
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
Total Incurred	426	4	0	430	3.71	426	4	0	430	3.71
% Allocation										
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
Total Incurred	426	4	0	430	3.71	426	4	0	430	3.71
% Allocation										
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
Total		430	430	430	0	0	0	430	430	430
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3885.000 - VOICE ENTERP SUPPORT

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	367
Non-Labor	0	0	0	0	4
NSE	0	0	0	0	0
Total	0	0	0	0	372
FTE	0.0	0.0	0.0	0.0	3.2
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	367
Non-Labor	0	0	0	0	4
NSE	0	0	0	0	0
Total	0	0	0	0	372
FTE	0.0	0.0	0.0	0.0	3.2
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	58
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	58
FTE	0.0	0.0	0.0	0.0	0.6
Escalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	0	426
Non-Labor	0	0	0	0	4
NSE	0	0	0	0	0
Total	0	0	0	0	430
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
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

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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		0	0	0	0	326	326	326	326	
FTE		0.0	0.0	0.0	0.0	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: 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
Total Incurred	309	17	0	326	2.42	309	17	0	326	2.43
% Allocation										
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
Total Incurred	309	17	0	326	2.43	309	17	0	326	2.43
% Allocation										
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: 2100-3888.000 - 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.

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

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
Total		326	326	326	0	0	0	326	326	326
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3888.000 - CLIENT TECH SVCS

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	267
Non-Labor	0	0	0	0	17
NSE	0	0	0	0	0
Total	0	0	0	0	284
FTE	0.0	0.0	0.0	0.0	2.1
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	267
Non-Labor	0	0	0	0	17
NSE	0	0	0	0	0
Total	0	0	0	0	284
FTE	0.0	0.0	0.0	0.0	2.1
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	42
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	42
FTE	0.0	0.0	0.0	0.0	0.4
Escalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	0	310
Non-Labor	0	0	0	0	17
NSE	0	0	0	0	0
Total	0	0	0	0	326
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.

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

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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		0	0	0	0	95	452	785	868	
FTE		0.0	0.0	0.0	0.0	0.6	0.6	1.3	2.1	

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: 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
Total Incurred	89	6	0	95	0.59	89	363	0	452	0.59
% Allocation										
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
Total Incurred	157	628	0	785	1.29	225	643	0	868	2.09
% Allocation										
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.

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

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
Total		95	95	95	357	690	773	452	785	868
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						
2014 Total	0	357	0	357	0.0	

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>Adi 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.

2015 Total	68	622	0	690	0.7	
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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
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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	0	357	0	357	0.0	1-Sided Adj
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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>
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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.

2016 Total	136	637	0	773	1.5	
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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)
Recorded (Nominal \$)*					
Labor	0	0	0	0	76
Non-Labor	0	0	0	0	6
NSE	0	0	0	0	0
Total	0	0	0	0	83
FTE	0.0	0.0	0.0	0.0	0.5
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	76
Non-Labor	0	0	0	0	6
NSE	0	0	0	0	0
Total	0	0	0	0	83
FTE	0.0	0.0	0.0	0.0	0.5
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	12
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	12
FTE	0.0	0.0	0.0	0.0	0.1
Escalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	0	89
Non-Labor	0	0	0	0	6
NSE	0	0	0	0	0
Total	0	0	0	0	95
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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

Note: Totals may include rounding differences.

Beginning of Workpaper
2100-4003.000 - IT Communications

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

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	
Total		0	33	133	145	92	92	92	92	
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
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 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
Total Incurred	90	1	0	91	1.23	90	1	0	91	1.23
% Allocation										
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
Total Incurred	90	1	0	91	1.23	90	1	0	91	1.23
% Allocation										
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.

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

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
Total		92	92	92	0	0	0	92	92	92
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-4003.000 - IT Communications

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	104	185	200	78
Non-Labor	0	5	10	7	1
NSE	0	0	0	0	0
Total	0	109	195	207	79
FTE	0.0	1.2	2.0	2.4	1.0
Adjustments (Nominal \$) **					
Labor	0	-79	-79	-79	0
Non-Labor	0	-3	-3	-3	0
NSE	0	0	0	0	0
Total	0	-82	-82	-82	0
FTE	0.0	-1.0	-1.0	-1.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	25	106	121	78
Non-Labor	0	2	7	4	1
NSE	0	0	0	0	0
Total	0	27	113	125	79
FTE	0.0	0.2	1.0	1.4	1.0
Vacation & Sick (Nominal \$)					
Labor	0	4	16	17	12
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	4	16	17	12
FTE	0.0	0.0	0.2	0.2	0.2
Escalation to 2013\$					
Labor	0	2	5	2	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	2	5	2	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	31	126	141	90
Non-Labor	0	2	7	4	1
NSE	0	0	0	0	0
Total	0	33	133	145	92
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
Total	0	-82	-82	-82	0
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>
2009 Total	0	0	0	0.0			
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							
2010 Total	-79	-3	0	-1.0			
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							
2011 Total	-79	-3	0	-1.0			
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							
2012 Total	-79	-3	0	-1.0			

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: 2100-4003.000 - 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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Shared Services Workpapers

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	1,073	1,436	2,676	2,851
NSE	0	0	0	0
Total	3,587	3,950	5,313	5,611
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
Total	223	223	273	273
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
Total	240	240	420	460
FTE	1.9	1.9	1.9	1.9

2100-3774.000 SECURITY ENGINEERING

Labor	765	765	765	765
Non-Labor	110	110	230	230
NSE	0	0	0	0
Total	875	875	995	995
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
Total	1,428	1,428	1,878	1,953
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
Total	507	870	1,290	1,330
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: 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
Total	296	296	439	582
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
Total	18	18	18	18
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	
Total		2,133	955	744	667	223	223	273	273	
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
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

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
Total Incurred	212	11	0	223	1.95	212	11	0	223	1.95
% Allocation										
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
Total Incurred	212	61	0	273	1.95	212	61	0	273	1.95
% Allocation										
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: 2100-3101.000 - 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.

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

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
Total		223	223	223	0	50	50	223	273	273
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>
2014 Total	0	0	0	0	0.0	
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>						
2015 Total	0	50	0	50	0.0	
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>						
2016 Total	0	50	0	50	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: 2100-3101.000 - INFORMATION SECURITY

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	1,396	860	639	593	183
Non-Labor	528	87	172	-16	11
NSE	0	0	0	0	0
Total	1,924	947	812	577	194
FTE	13.9	8.7	6.4	5.7	1.7
Adjustments (Nominal \$) **					
Labor	-158	-158	-158	2	0
Non-Labor	-9	-9	-9	-9	0
NSE	0	0	0	0	0
Total	-167	-167	-167	-7	0
FTE	-2.0	-2.0	-2.0	-2.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	1,238	702	482	595	183
Non-Labor	519	78	163	-25	11
NSE	0	0	0	0	0
Total	1,757	780	645	570	194
FTE	11.9	6.7	4.4	3.7	1.7
Vacation & Sick (Nominal \$)					
Labor	191	112	71	86	29
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	191	112	71	86	29
FTE	2.0	1.2	0.7	0.6	0.3
Escalation to 2013\$					
Labor	136	58	22	12	0
Non-Labor	49	6	6	0	0
NSE	0	0	0	0	0
Total	185	63	28	11	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	1,565	872	574	692	212
Non-Labor	568	83	170	-25	11
NSE	0	0	0	0	0
Total	2,133	955	744	667	223
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.

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

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
Total	-167	-167	-167	-7	0
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							
2009 Total	-158	-9	0	-2.0			
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							
2010 Total	-158	-9	0	-2.0			
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.

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: 2100-3101.000 - 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>
2011 Total	-158	-9	0	-2.0			
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							
2012 Total	2	-9	0	-2.0			
2013 Total	0	0	0	0.0			

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		
Total	2	297	250	276	240	240	420	460		
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
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

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
Total Incurred	175	65	0	240	1.86	175	65	0	240	1.86
% Allocation										
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
Total Incurred	175	245	0	420	1.86	175	285	0	460	1.86
% Allocation										
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: 2100-3763.000 - 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.

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>
2016 Total	0	220	0	220	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: 2100-3763.000 - DIRECTOR - INFORMATION SECURITY

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	222	191	114	151
Non-Labor	2	20	21	141	65
NSE	0	0	0	0	0
Total	2	242	212	255	216
FTE	0.0	2.0	1.7	0.8	1.6
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	222	191	114	151
Non-Labor	2	20	21	141	65
NSE	0	0	0	0	0
Total	2	242	212	255	216
FTE	0.0	2.0	1.7	0.8	1.6
Vacation & Sick (Nominal \$)					
Labor	0	35	28	17	24
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	35	28	17	24
FTE	0.0	0.3	0.3	0.1	0.3
Escalation to 2013\$					
Labor	0	18	9	2	0
Non-Labor	0	1	1	2	0
NSE	0	0	0	0	0
Total	0	20	9	5	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	275	227	133	175
Non-Labor	2	22	22	143	65
NSE	0	0	0	0	0
Total	2	297	250	276	240
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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	210	172	110	110	230	230	
NSE		0	0	0	0	0	0	0	0	
Total		12	672	794	868	875	875	995	995	
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	29	0	727	6.42
Total Incurred	764	110	0	874	7.04	764	110	0	874	7.04
% Allocation										
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	149	0	847	6.42	698	149	0	847	6.42
Total Incurred	764	230	0	994	7.04	764	230	0	994	7.04
% Allocation										
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	110	110	110	0	120	120	110	230	230
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		875	875	875	0	120	120	875	995	995
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>
2014 Total	0	0	0	0	0.0	
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.						
2015 Total	0	120	0	120	0.0	
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.						
2016 Total	0	120	0	120	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: 2100-3774.000 - SECURITY ENGINEERING

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	10	455	491	598	660
Non-Labor	0	100	202	169	110
NSE	0	0	0	0	0
Total	10	555	692	767	770
FTE	0.1	4.3	4.7	5.5	6.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	10	455	491	598	660
Non-Labor	0	100	202	169	110
NSE	0	0	0	0	0
Total	10	555	692	767	770
FTE	0.1	4.3	4.7	5.5	6.0
Vacation & Sick (Nominal \$)					
Labor	1	72	72	87	105
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	1	72	72	87	105
FTE	0.0	0.7	0.8	0.9	1.0
Escalation to 2013\$					
Labor	1	37	22	12	0
Non-Labor	0	7	8	3	0
NSE	0	0	0	0	0
Total	1	44	30	15	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	12	565	585	697	765
Non-Labor	0	107	210	172	110
NSE	0	0	0	0	0
Total	12	672	794	868	875
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	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		-242	777	1,299	1,872	1,429	1,429	1,879	1,954	
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
Total Incurred	1,116	313	0	1,429	11.02	1,116	313	0	1,429	11.03
% Allocation										
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
Total Incurred	1,116	763	0	1,879	11.03	1,116	838	0	1,954	11.03
% Allocation										
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
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

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	1,115	1,115	1,115	0	0	0	1,115	1,115	1,115
Non-Labor	Base YR Rec	313	313	313	0	450	525	313	763	838
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Total		1,429	1,429	1,429	0	450	525	1,429	1,879	1,954
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>Adi Type</u>
2014 Total	0	0	0	0	0.0	

2015 0 350 0 350 0.0 1-Sided Adj

Information Security - Annual vulnerability and penetration testing assessments on SDG&E/SCG Crit Infrastructure - consulting. Assumes estimated annual cost for 3rd party vendor services, based on approximately 35 man weeks per year @ \$10K per week in 2015, and 40 man weeks in 2016.

2015 0 100 0 100 0.0 1-Sided Adj

Information Security - External forensics and investigation support - consulting. Assumes estimated annual cost for 3rd party vendor services, based on approximately 5 man weeks per year @ \$20K per week in 2015, and 6 man weeks in 2016.

2015 Total	0	450	0	450	0.0	
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2016 0 400 0 400 0.0 1-Sided Adj

Information Security - Annual vulnerability and penetration testing assessments on SDG&E/SCG Crit Infrastructure - consulting. Assumes estimated annual cost for 3rd party vendor services, based on approximately 35 man weeks per year @ \$10K per week in 2015, and 40 man weeks in 2016.

2016 0 125 0 125 0.0 1-Sided Adj

Information Security - External forensics and investigation support - consulting. Assumes estimated annual cost for 3rd party vendor services, based on approximately 5 man weeks per year @ \$20K per week in 2015, and 6 man weeks in 2016.

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>Total</u>	<u>FTE</u>	<u>Adi Type</u>
2016 Total	0	525	0	525	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: 2100-3775.000 - SECURITY OPERATIONS

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	6	636	965	1,360	963
Non-Labor	0	218	370	509	313
NSE	0	0	0	0	0
Total	6	854	1,335	1,870	1,276
FTE	0.1	6.4	10.0	13.7	9.4
Adjustments (Nominal \$) **					
Labor	-190	-190	-190	-190	0
Non-Labor	-9	-9	-9	-9	0
NSE	0	0	0	0	0
Total	-199	-199	-199	-199	0
FTE	-2.0	-2.0	-2.0	-2.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	-184	446	775	1,170	963
Non-Labor	-9	209	361	500	313
NSE	0	0	0	0	0
Total	-193	655	1,136	1,670	1,276
FTE	-1.9	4.4	8.0	11.7	9.4
Vacation & Sick (Nominal \$)					
Labor	-28	71	114	170	153
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	-28	71	114	170	153
FTE	-0.3	0.8	1.3	1.9	1.6
Escalation to 2013\$					
Labor	-20	37	35	23	0
Non-Labor	-1	15	14	9	0
NSE	0	0	0	0	0
Total	-21	51	49	32	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	-232	553	924	1,363	1,115
Non-Labor	-10	224	375	509	313
NSE	0	0	0	0	0
Total	-242	777	1,299	1,872	1,429
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
Total	-199	-199	-199	-199	0
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							
2009 Total	-190	-9	0	-2.0			
2010	-190	-9	0	-2.0	CCTR Transf	To 2200-2469.000	FFIGUERO20131 031150011357
IT Employee Transfer from SDGE to SCG as of 2013							
2010 Total	-190	-9	0	-2.0			
2011	-190	-9	0	-2.0	CCTR Transf	To 2200-2469.000	FFIGUERO20131 031150047723
IT Employee Transfer from SDGE to SCG as of 2013							
2011 Total	-190	-9	0	-2.0			
2012	-190	-9	0	-2.0	CCTR Transf	To 2200-2469.000	FFIGUERO20131 031150119673
IT Employee Transfer from SDGE to SCG as of 2013							
2012 Total	-190	-9	0	-2.0			

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

<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	
Total		0	637	1,027	830	507	870	1,290	1,330	
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
Total Incurred	0	507	0	507	0.00	0	870	0	870	0.00
% Allocation										
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
Total Incurred	0	1,290	0	1,290	0.00	0	1,330	0	1,330	0.00
% Allocation										
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: 2100-3781.000 - 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
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

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
Total		507	507	507	363	783	823	870	1,290	1,330
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.

2014 Total	0	363	0	363	0.0	
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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.

2015 Total	0	783	0	783	0.0	
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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
 Category-Sub: 1. Information Security
 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.

2016 Total	0	823	0	823	0.0	
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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)
Recorded (Nominal \$)*					
Labor	0	0	0	0	0
Non-Labor	0	594	988	816	507
NSE	0	0	0	0	0
Total	0	594	988	816	507
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	594	988	816	507
NSE	0	0	0	0	0
Total	0	594	988	816	507
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2013\$					
Labor	0	0	0	0	0
Non-Labor	0	42	39	14	0
NSE	0	0	0	0	0
Total	0	42	39	14	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	0	0
Non-Labor	0	637	1,027	830	507
NSE	0	0	0	0	0
Total	0	637	1,027	830	507
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: 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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		0	0	335	351	296	296	439	582	
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
Total Incurred	229	67	0	296	1.04	229	67	0	296	1.04
% Allocation										
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
Total Incurred	352	87	0	439	2.24	475	107	0	582	3.54
% Allocation										
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
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 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
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

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
Total		296	296	296	0	143	286	296	439	582
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>
2014 Total	0	0	0	0	0.0	

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.

2015 Total	123	20	0	143	1.2	
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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.

2016 Total	246	40	0	286	2.5	
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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)
Recorded (Nominal \$)*					
Labor	0	0	218	190	198
Non-Labor	0	0	72	127	67
NSE	0	0	0	0	0
Total	0	0	290	318	264
FTE	0.0	0.0	1.5	0.9	0.9
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	218	190	198
Non-Labor	0	0	72	127	67
NSE	0	0	0	0	0
Total	0	0	290	318	264
FTE	0.0	0.0	1.5	0.9	0.9
Vacation & Sick (Nominal \$)					
Labor	0	0	32	28	31
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	32	28	31
FTE	0.0	0.0	0.2	0.1	0.2
Escalation to 2013\$					
Labor	0	0	10	4	0
Non-Labor	0	0	3	2	0
NSE	0	0	0	0	0
Total	0	0	13	6	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	259	222	229
Non-Labor	0	0	75	130	67
NSE	0	0	0	0	0
Total	0	0	335	351	296
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.

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

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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		0	0	84	56	19	19	19	19	
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
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 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
Total Incurred	18	0	0	18	0.15	18	0	0	18	0.15
% Allocation										
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
Total Incurred	18	0	0	18	0.15	18	0	0	18	0.15
% Allocation										
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
Total		19	19	19	0	0	0	19	19	19
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 2100-3817.000 - INFO SECURITY PROG

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	68	43	16
Non-Labor	0	0	3	5	0
NSE	0	0	0	0	0
Total	0	0	71	48	16
FTE	0.0	0.0	0.6	0.4	0.1
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	68	43	16
Non-Labor	0	0	3	5	0
NSE	0	0	0	0	0
Total	0	0	71	48	16
FTE	0.0	0.0	0.6	0.4	0.1
Vacation & Sick (Nominal \$)					
Labor	0	0	10	6	3
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	10	6	3
FTE	0.0	0.0	0.1	0.1	0.0
Escalation to 2013\$					
Labor	0	0	3	1	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	3	1	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	82	50	18
Non-Labor	0	0	3	5	0
NSE	0	0	0	0	0
Total	0	0	84	56	19
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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	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: 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
Total	5,309	5,344	5,344	5,344
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
Total	752	752	752	752
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
Total	718	788	788	788
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
Total	604	604	604	604
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
Total	300	300	300	300
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
Total	536	536	536	536
FTE	4.9	4.9	4.9	4.9

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

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
Total	637	637	637	637
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
Total	175	175	175	175
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
Total	568	533	533	533
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
Total	1,019	1,019	1,019	1,019
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
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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

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	
Total		354	592	368	2,477	752	752	752	752	
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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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
Total Incurred	336	416	0	752	2.02	336	416	0	752	2.02
% Allocation										
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
Total Incurred	336	416	0	752	2.02	336	416	0	752	2.02
% Allocation										
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.

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

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.

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

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
Total		752	752	752	0	0	0	752	752	752
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 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)
Recorded (Nominal \$)*					
Labor	251	49	10	196	290
Non-Labor	34	471	77	291	416
NSE	0	0	0	0	0
Total	285	521	87	487	706
FTE	2.4	0.9	0.2	1.0	1.7
Adjustments (Nominal \$) **					
Labor	0	0	66	574	0
Non-Labor	0	25	189	1,262	0
NSE	0	0	0	0	0
Total	0	25	256	1,836	0
FTE	0.0	0.0	0.9	6.5	0.0
Recorded-Adjusted (Nominal \$)					
Labor	251	49	76	770	290
Non-Labor	34	496	266	1,553	416
NSE	0	0	0	0	0
Total	285	545	343	2,323	706
FTE	2.4	0.9	1.1	7.5	1.7
Vacation & Sick (Nominal \$)					
Labor	39	8	11	112	46
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	39	8	11	112	46
FTE	0.4	0.1	0.2	1.2	0.3
Escalation to 2013\$					
Labor	27	4	3	15	0
Non-Labor	3	35	10	27	0
NSE	0	0	0	0	0
Total	31	39	14	42	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	317	61	91	897	336
Non-Labor	37	531	277	1,580	416
NSE	0	0	0	0	0
Total	354	592	368	2,477	752
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.

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

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
Total	0	25	256	1,836	0
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>
2009 Total	0	0	0	0.0			
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.
2010 Total	0	25	0	0.0			
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.

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

<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.							
2011 Total	66	189	0	0.9			
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.							
2012 Total	574	1,262	0	6.5			
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.							
2013 Total	0	0	0	0.0			

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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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

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	
Total		848	773	836	799	718	788	788	788	
FTE		8.2	7.8	8.3	8.5	7.1	7.1	7.1	7.1	

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

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
Total Incurred	709	8	0	717	7.13	759	28	0	787	7.13
% Allocation										
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
Total Incurred	759	28	0	787	7.13	759	28	0	787	7.13
% Allocation										
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.

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

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
Total		718	718	718	70	70	70	788	788	788
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.

2014 Total	50	20	0	70	0.0	
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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.

2015 Total	50	20	0	70	0.0	
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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.

2016 Total	50	20	0	70	0.0	
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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

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	378	327	456	480	612
Non-Labor	9	5	78	30	9
NSE	0	0	0	0	0
Total	387	331	534	510	621
FTE	4.4	4.0	5.4	5.5	6.1
Adjustments (Nominal \$) **					
Labor	280	288	168	177	0
Non-Labor	5	5	10	3	0
NSE	0	0	0	0	0
Total	286	293	178	180	0
FTE	2.6	2.6	1.7	1.8	0.0
Recorded-Adjusted (Nominal \$)					
Labor	659	615	625	658	612
Non-Labor	14	10	88	33	9
NSE	0	0	0	0	0
Total	673	624	712	690	621
FTE	7.0	6.6	7.1	7.3	6.1
Vacation & Sick (Nominal \$)					
Labor	102	98	92	95	97
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	102	98	92	95	97
FTE	1.2	1.1	1.2	1.2	1.1
Escalation to 2013\$					
Labor	72	50	28	13	0
Non-Labor	1	1	3	1	0
NSE	0	0	0	0	0
Total	73	51	31	14	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	832	763	745	766	709
Non-Labor	16	11	91	33	9
NSE	0	0	0	0	0
Total	848	773	836	799	718
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
Total	286	293	178	180	0
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							
2009 Total	280	5	0	2.6			
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							
2010 Total	288	5	0	2.6			
2011	168	10	0	1.7	CCTR Transf	From 2100-3012.000	SDEW201310151 50649653
Employees merged with cost center 2100-3067							
2011 Total	168	10	0	1.7			
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
 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

<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

2012 Total	177	3	0	1.8			
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2013 Total	0	0	0	0.0			
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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	
Total		862	788	797	878	604	604	604	604	
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
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 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
Total Incurred	266	338	0	604	3.01	266	338	0	604	3.01
% Allocation										
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
Total Incurred	266	338	0	604	3.01	266	338	0	604	3.01
% Allocation										
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
Total		604	604	604	0	0	0	604	604	604
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 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 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)
Recorded (Nominal \$)*					
Labor	333	196	178	255	230
Non-Labor	403	509	563	571	338
NSE	0	0	0	0	0
Total	736	705	741	826	568
FTE	4.1	2.6	2.2	3.0	2.6
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	333	196	178	255	230
Non-Labor	403	509	563	571	338
NSE	0	0	0	0	0
Total	736	705	741	826	568
FTE	4.1	2.6	2.2	3.0	2.6
Vacation & Sick (Nominal \$)					
Labor	51	31	26	37	36
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	51	31	26	37	36
FTE	0.7	0.5	0.4	0.5	0.4
Escalation to 2013\$					
Labor	36	16	8	5	0
Non-Labor	38	36	22	10	0
NSE	0	0	0	0	0
Total	75	52	30	15	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	420	244	212	297	266
Non-Labor	441	545	585	580	338
NSE	0	0	0	0	0
Total	862	788	797	878	604
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
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

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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	335	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	
Total		292	476	614	697	300	300	300	300	
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
Total Incurred	339	-40	0	299	2.38	339	-40	0	299	2.38
% Allocation										
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
Total Incurred	339	-40	0	299	2.38	339	-40	0	299	2.38
% Allocation										
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: 2100-3699.000 - 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
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

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
Total		300	300	300	0	0	0	300	300	300
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 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)
Recorded (Nominal \$)*					
Labor	190	382	478	545	293
Non-Labor	183	137	177	196	-40
NSE	0	0	0	0	0
Total	373	519	655	740	253
FTE	1.4	2.9	3.4	3.8	2.0
Adjustments (Nominal \$) **					
Labor	-112	-112	-112	-112	0
Non-Labor	-6	-6	-6	-6	0
NSE	0	0	0	0	0
Total	-118	-118	-118	-118	0
FTE	-1.0	-1.0	-1.0	-1.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	78	270	366	433	293
Non-Labor	177	131	171	190	-40
NSE	0	0	0	0	0
Total	255	401	537	622	253
FTE	0.4	1.9	2.4	2.8	2.0
Vacation & Sick (Nominal \$)					
Labor	12	43	54	63	46
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	12	43	54	63	46
FTE	0.1	0.3	0.4	0.4	0.4
Escalation to 2013\$					
Labor	9	22	16	9	0
Non-Labor	17	9	7	3	0
NSE	0	0	0	0	0
Total	25	31	23	12	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	99	335	437	504	340
Non-Labor	193	140	177	193	-40
NSE	0	0	0	0	0
Total	292	476	614	697	300
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
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

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs					
Years	2009	2010	2011	2012	2013
Labor	-112	-112	-112	-112	0
Non-Labor	-6	-6	-6	-6	0
NSE	0	0	0	0	0
Total	-118	-118	-118	-118	0
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							
2009 Total	-112	-6	0	-1.0			
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 Total	-112	-6	0	-1.0			
2011	-112	-6	0	-1.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031145423750
IT Employee Transfer from SDGE to SCG as of 2013							
2011 Total	-112	-6	0	-1.0			
2012	-112	-6	0	-1.0	CCTR Transf	To 2200-2470.000	FFIGUERO20131 031145501217
IT Employee Transfer from SDGE to SCG as of 2013							
2012 Total	-112	-6	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: 2100-3699.000 - 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>
2013 Total	0	0	0	0.0			

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:

		In 2013\$ (000) Incurred Costs								
		Adjusted-Recorded					Adjusted-Forecast			
Years		2009	2010	2011	2012	2013	2014	2015	2016	
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	
Total		565	577	544	529	536	536	536	536	
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
Total Incurred	497	39	0	536	4.95	497	39	0	536	4.95
% Allocation										
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
Total Incurred	497	39	0	536	4.95	497	39	0	536	4.95
% Allocation										
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.

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

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
Total		536	536	536	0	0	0	536	536	536
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 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)
Recorded (Nominal \$)*					
Labor	23	22	17	9	29
Non-Labor	3	25	20	26	14
NSE	0	0	0	0	0
Total	26	47	37	35	43
FTE	0.2	0.2	0.1	0.1	0.2
Adjustments (Nominal \$) **					
Labor	400	400	400	400	400
Non-Labor	25	25	25	25	25
NSE	0	0	0	0	0
Total	425	425	425	425	425
FTE	4.0	4.0	4.0	4.0	4.0
Recorded-Adjusted (Nominal \$)					
Labor	423	422	417	409	429
Non-Labor	28	50	45	51	39
NSE	0	0	0	0	0
Total	451	472	462	460	468
FTE	4.2	4.2	4.1	4.1	4.2
Vacation & Sick (Nominal \$)					
Labor	65	67	61	59	68
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	65	67	61	59	68
FTE	0.7	0.7	0.7	0.7	0.7
Escalation to 2013\$					
Labor	46	35	19	8	0
Non-Labor	3	4	2	1	0
NSE	0	0	0	0	0
Total	49	38	20	9	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	534	524	498	477	497
Non-Labor	31	53	47	52	39
NSE	0	0	0	0	0
Total	565	577	544	529	536
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
Total	425	425	425	425	425
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.							
2009 Total	400	25	0	4.0			
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.							
2010 Total	400	25	0	4.0			
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.							
2011 Total	400	25	0	4.0			
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.							
2012 Total	400	25	0	4.0			

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: 2100-3713.000 - 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 11T003 to 2100-3713 as part of IT reorganization.

2013 Total	400	25	0	4.0			
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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	
Total		342	455	466	643	637	637	637	637	
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
Total Incurred	393	245	0	638	1.38	393	245	0	638	1.38
% Allocation										
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
Total Incurred	393	245	0	638	1.38	393	245	0	638	1.38
% Allocation										
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
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

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
Total		637	637	637	0	0	0	637	637	637
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 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)
Recorded (Nominal \$)*					
Labor	215	316	321	373	339
Non-Labor	64	59	80	204	244
NSE	0	0	0	0	0
Total	279	375	401	578	583
FTE	0.7	1.2	1.3	1.7	1.2
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	215	316	321	373	339
Non-Labor	64	59	80	204	244
NSE	0	0	0	0	0
Total	279	375	401	578	583
FTE	0.7	1.2	1.3	1.7	1.2
Vacation & Sick (Nominal \$)					
Labor	33	50	47	54	54
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	33	50	47	54	54
FTE	0.1	0.2	0.2	0.3	0.2
Escalation to 2013\$					
Labor	24	26	14	7	0
Non-Labor	6	4	3	4	0
NSE	0	0	0	0	0
Total	30	30	17	11	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	272	393	382	435	393
Non-Labor	70	63	83	208	244
NSE	0	0	0	0	0
Total	342	455	466	643	637
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
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

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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		1	201	124	156	174	174	174	174	
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
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 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
Total Incurred	131	43	0	174	1.02	131	43	0	174	1.02
% Allocation										
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
Total Incurred	131	43	0	174	1.02	131	43	0	174	1.02
% Allocation										
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
Total		174	174	174	0	0	0	174	174	174
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 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)
Recorded (Nominal \$)*					
Labor	0	143	85	93	113
Non-Labor	1	22	22	47	44
NSE	0	0	0	0	0
Total	1	165	107	140	156
FTE	0.0	1.3	1.0	0.8	0.9
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	143	85	93	113
Non-Labor	1	22	22	47	44
NSE	0	0	0	0	0
Total	1	165	107	140	156
FTE	0.0	1.3	1.0	0.8	0.9
Vacation & Sick (Nominal \$)					
Labor	0	23	13	13	18
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	23	13	13	18
FTE	0.0	0.2	0.2	0.1	0.2
Escalation to 2013\$					
Labor	0	12	4	2	0
Non-Labor	0	2	1	1	0
NSE	0	0	0	0	0
Total	0	13	5	3	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	178	102	108	131
Non-Labor	1	23	22	48	44
NSE	0	0	0	0	0
Total	1	201	124	156	174
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
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

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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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	
Total		0	7	250	430	568	533	533	533	
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
Total Incurred	7	561	0	568	0.03	121	412	0	533	1.03
% Allocation										
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
Total Incurred	121	412	0	533	1.03	121	412	0	533	1.03
% Allocation										
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
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

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
Total		568	568	568	-35	-35	-35	533	533	533
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>Adi 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)						
2014 Total	114	-149	0	-35	1.0	
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)						
2015 Total	114	-149	0	-35	1.0	
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)						
2016 Total	114	-149	0	-35	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

Determination of Adjusted-Recorded (Incurred Costs):

	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*					
Labor	0	5	154	155	6
Non-Labor	0	0	64	245	561
NSE	0	0	0	0	0
Total	0	5	218	400	568
FTE	0.0	0.1	1.5	1.3	0.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	5	154	155	6
Non-Labor	0	0	64	245	561
NSE	0	0	0	0	0
Total	0	5	218	400	568
FTE	0.0	0.1	1.5	1.3	0.0
Vacation & Sick (Nominal \$)					
Labor	0	1	23	23	1
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	1	23	23	1
FTE	0.0	0.0	0.3	0.2	0.0
Escalation to 2013\$					
Labor	0	0	7	3	0
Non-Labor	0	0	2	4	0
NSE	0	0	0	0	0
Total	0	0	9	7	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	6	184	181	7
Non-Labor	0	0	67	249	561
NSE	0	0	0	0	0
Total	0	7	250	430	568
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
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

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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

Note: Totals may include rounding differences.

Beginning of Workpaper
2100-3842.000 - IT ASSOCIATE PROGRAM

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

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	
Total		0	0	0	152	1,019	1,019	1,019	1,019	
FTE		0.0	0.0	0.0	2.3	13.0	13.0	13.0	13.0	

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: 2100-3842.000 - 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
Total Incurred	1,007	12	0	1,019	12.99	1,007	12	0	1,019	12.99
% Allocation										
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
Total Incurred	1,007	12	0	1,019	12.99	1,007	12	0	1,019	12.99
% Allocation										
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.

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

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.

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

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
Total		1,019	1,019	1,019	0	0	0	1,019	1,019	1,019
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>
2014 Total	0	0	0	0	0.0	
2015 Total	0	0	0	0	0.0	
2016 Total	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: 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)
Recorded (Nominal \$)*					
Labor	0	0	0	120	869
Non-Labor	0	0	0	12	12
NSE	0	0	0	0	0
Total	0	0	0	132	881
FTE	0.0	0.0	0.0	2.0	11.0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	120	869
Non-Labor	0	0	0	12	12
NSE	0	0	0	0	0
Total	0	0	0	132	881
FTE	0.0	0.0	0.0	2.0	11.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	17	138
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	17	138
FTE	0.0	0.0	0.0	0.3	1.9
Escalation to 2013\$					
Labor	0	0	0	2	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	3	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2013\$)					
Labor	0	0	0	139	1,007
Non-Labor	0	0	0	12	12
NSE	0	0	0	0	0
Total	0	0	0	152	1,019
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
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

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
Total	0	0	0	0	0
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 Total	0	0	0	0.0			
2010 Total	0	0	0	0.0			
2011 Total	0	0	0	0.0			
2012 Total	0	0	0	0.0			
2013 Total	0	0	0	0.0			

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

Appendix A: List of Non-Shared Cost Centers

Cost Center	Sub	Description
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

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

Area: INFORMATION TECHNOLOGY
Witness: Stephen J. Mikovits

Appendix A: List of Non-Shared Cost Centers

Cost Center	Sub	Description
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