Application of SOUTHERN CALIFORNIA GAS)COMPANY for authority to update its gas revenue)requirement and base rates)effective January 1, 2019 (U 904-G))

Application No. 17-10-____ Exhibit No.: (SCG-26-WP)

WORKPAPERS TO PREPARED DIRECT TESTIMONY OF CHRISTOPHER R. OLMSTED

ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

OCTOBER 2017



2019 General Rate Case - APP INDEX OF WORKPAPERS

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Appendix A: List of Non-Shared Cost Centers

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Southern California Gas Company 2019 GRC - APP

Overall Summary For Exhibit No. SCG-26-WP

	Area: INFORMA	TION TECHNOLOGY		
	Witness: Christophe	er R. Olmsted		
		In 2016 \$ (000) I	ncurred Costs	
	Adjusted-Recorded		Adjusted-Forecast	
Description	2016	2017	2018	2019
Non-Shared Services	13,962	16,928	19,679	21,077
Shared Services	10,626	11,150	11,850	11,850
Total	24,588	28,078	31,529	32,927

Area: INFORMATION TECHNOLOGY

Witness: Christopher R. Olmsted

Summary of Non-Shared Services Workpapers:

	In 2016 \$ (000) Incurred Costs						
	Adjusted- Recorded	Adjusted-Forecast					
Description	2016	2017	2018	2019			
A. Applications	5,442	5,999	6,784	8,040			
B. Infrastructure	8,368	10,390	12,256	14,677			
C. IT Support	152	539	639	-1,640			
Total	13,962	16,928	19,679	21,077			

Area:INFORMATION TECHNOLOGYWitness:Christopher R. OlmstedCategory:A. ApplicationsWorkpaper:2IT001.000

Summary for Category: A. Applications

		In 2016\$ (000) Incu	urred Costs				
	Adjusted-Recorded	Adjusted-Recorded Adjusted-Forecast					
	2016	2017	2018	2019			
Labor	2,899	2,899	2,949	3,299			
Non-Labor	2,543	2,547	2,751	3,406			
NSE	0	553	1,084	1,335			
Total	5,442	5,999	6,784	8,040			
FTE	25.6	25.6	26.1	29.6			

Workpapers belonging to this Category:

2IT001.000 IT Applications NSS

FTE	25.6	25.6	26.1	29.6
Total	5,442	5,999	6,784	8,040
NSE	0	553	1,084	1,335
Non-Labor	2,543	2,547	2,751	3,406
Labor	2,899	2,899	2,949	3,299
••				

Beginning of Workpaper 2IT001.000 - IT Applications NSS

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub	1. Applications
Workpaper:	2IT001.000 - IT Applications NSS

Activity Description:

The SoCalGas Non-Shared IT Applications costs represent labor and non-labor for systems where 100% of the activities directly support SoCalGas. The types of systems supported in this area include, but are not limited to, customer field operations, routing, scheduling and dispatching.

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 2016\$ (00	0) Incurred (Costs		
		Adju	isted-Recor	Adjusted-Forecast				
Years	2012	2013	2014	2015	2016	2017	2018	2019
Labor	2,410	3,155	3,025	3,277	2,899	2,899	2,949	3,299
Non-Labor	644	819	730	2,740	2,543	2,546	2,750	3,405
NSE	0	0	0	0	0	553	1,084	1,335
Total	3,054	3,973	3,755	6,017	5,442	5,998	6,783	8,039
FTE	23.3	29.4	28.0	28.2	25.6	25.6	26.1	29.6

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Workpaper:	2IT001.000 - IT Applications NSS

Summary of Adjustments to Forecast:

			In 201	6 \$(000) lı	ncurred Co	sts				
Forecas	t Method	Bas	se Foreca	st	Forec	ast Adjust	ments	Adjus	ted-Forec	ast
Year	s	2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	2,899	2,899	2,899	0	50	400	2,899	2,949	3,299
Non-Labor	Base YR Rec	2,543	2,543	2,543	4	208	863	2,547	2,751	3,406
NSE	Base YR Rec	0	0	0	553	1,084	1,335	553	1,084	1,335
Tota	al	5,442	5,442	5,442	557	1,342	2,598	5,999	6,784	8,040
FTE	Base YR Rec	25.6	25.6	25.6	0.0	0.5	4.0	25.6	26.1	29.6

Forecast Adjustment Details:

Year Adj Gro		Labor	<u>NLbr</u>	NSE	Total	<u>FTE</u>	Adj Type	RefID
2017 Other		0	0	553	553	0.0	1-Sided Adj	SOMAHONY20161204160243613
Explanation:	Forecast fo	or increme	ental O&I	M from ca	apital projec	cts for 201	7	
2017 Other		0	4	0	4	0.0	1-Sided Adj	SOMAHONY20170310012149700
Explanation:	Contract es	scalations	and new	v contrac	ts			
2017 Total		0	4	553	557	0.0		
2018 Other		0	0	1,084	1,084	0.0	1-Sided Adj	SOMAHONY20161204160258200
Explanation:	Forecast fo	or increme	ental O&I	M from ca	apital projec	cts for 201	8	
2018 Other		0	8	0	8	0.0	1-Sided Adj	SOMAHONY20170310012213383
Explanation:	Contract es	scalations	and new	v contrac	ts			
2018 Other		50	200	0	250	0.5	1-Sided Adj	SOMAHONY20170831143757897
Explanation:	1 resource party vendo			•		the CIS/Pa	acer replaceme	nt study. Non-labor is for 3rd
2018 Total		50	208	1,084	1,342	0.5		
2019 Other		400	850	0	1,250	4.0	1-Sided Adj	SOMAHONY20170831143906270
Explanation:	4 resources to assist co			k for the (CIS/Pacer ı	replaceme	nt study. Non-la	abor is for 3rd party vendor
2019 Other		0	0	1,335	1,335	0.0	1-Sided Adj	SOMAHONY20161204160310780
Explanation:	Forecast fo	or increme	ental O&I	M from ca	apital projec	cts for 201	9	
Note: Totals may include rounding differences. SCG/INFORMATION TECHNOLOGY/Exh No:SCG-26-WP/Witness: C. Olmsted								

Area:	INFORMATION	N TECHN	IOLOGY				
Witness:	Christopher R.	Olmsted					
Category:	A. Applications						
Category-Sub:	1. Applications						
Workpaper:	2IT001.000 - IT	r Applicat	ions NSS	6			
Year Adj Gro							
	oup <u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj_Type</u>	RefID
2019 Other	oup <u>Labor</u> 0	<u>NLbr</u> 13	<u>NSE</u> 0	<u>Total</u> 13	<u>FTE</u> 0.0	Adj_Type	<u>RefID</u> SOMAHONY20170310012244573
		13	0	13			

INFORMATION TECHNOLOGY
Christopher R. Olmsted
A. Applications
1. Applications
2IT001.000 - IT Applications NSS

Determination of Adjusted-Recorded (Incurred Costs):

•	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
ecorded (Nominal \$)*					
Labor	15	2,527	2,480	2,753	2,566
Non-Labor	75	755	732	2,733	2,573
NSE	0	0	0	0	0
Total	90	3,282	3,212	5,486	5,138
FTE	0.1	25.2	24.0	24.2	22.8
djustments (Nominal \$) *'	*				
Labor	1,901	-5	0	0	-76
Non-Labor	551	54	0	0	-30
NSE	0	0	0	0	0
Total	2,452	49	0	0	-106
FTE	20.0	0.0	0.0	0.0	-0.9
ecorded-Adjusted (Nomir	nal \$)				
Labor	1,916	2,523	2,480	2,753	2,489
Non-Labor	626	809	732	2,733	2,543
NSE	0	0	0	0	0
Total	2,542	3,331	3,212	5,486	5,032
FTE	20.1	25.2	24.0	24.2	21.9
acation & Sick (Nominal S	6)				
Labor	278	419	405	446	410
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	278	419	405	446	410
FTE	3.2	4.3	4.0	4.1	3.7
scalation to 2016\$					
Labor	215	213	140	78	0
Non-Labor	18	10	-2	7	0
NSE	0	0	0	0	0
Total	234	223	138	85	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	ant 2016\$)				
Labor	2,410	3,155	3,025	3,277	2,899
Non-Labor	644	819	730	2,740	2,543
NSE	0	0	0	0	0
Total	3,054	3,973	3,755	6,017	5,442
FTE	23.3	29.5	28.0	28.3	25.6

* After company-wide exclusions of Non-GRC costs

** Refer to "Detail of Adjustments to Recorded" page for line item adjustments *Note: Totals may include rounding differences.*

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-26-WP/Witness: C. Olmsted Page 8 of 190

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Workpaper:	2IT001.000 - IT Applications NSS

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs						
Years 2012 2013 2014 2015 2016						
Labor		1,901	-5	0	0	-76
Non-Labor		551	54	0	0	-30
NSE		0	0	0	0	0
	Total	2,452	49	0	0	-106
FTE		20.0	0.0	0.0	0.0	-0.9

Detail of Adjustments to Recorded:

Year	<u>Adj G</u>	Group	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	RefID
2012	Othe	er	1,315	436	0	14.1	CCTR Transf From 2100-3082.000	SOMAHONY20170308004818030
Explanat	tion:	SCG Ap	p Custome	er Info Sy	/stems	costs	transferred to 2200-2449.	
2012	Othe	er	2	0	0	0.0	CCTR Transf From 2100-3083.000	SOMAHONY20170308010332967
Explanat	tion:	SCG Ap	ps Field Se	ervices c	osts tra	ansferi	red to 2200-2450.	
2012	Othe	er	470	45	0	4.8	CCTR Transf From 2100-3083.000	SOMAHONY20170308010406587
Explanat	tion:	SCG Ap	ps Field Se	ervices c	osts tra	ansferi	red to 2200-2450.	
2012	Othe	er	0	0	0	0.0	CCTR Transf From 2100-3082.000	SOMAHONY20170308001846647
Explanat	tion:	SCG Ap	p Custome	er Info Sy	/stems	costs	transferred to 2200-2449.	
2012	Othe	er	92	56	0	0.9	CCTR Transf From 2100-3082.000	SOMAHONY20170308001925110
Explanat	tion:	SCG Ap	p Custome	er Info Sy	/stems	costs	transferred to 2200-2449.	
2012	Othe	er	22	14	0	0.2	CCTR Transf From 2100-3082.000	SOMAHONY20170308001956170
Explanat	tion:	SCG Ap	p Custome	er Info Sy	/stems	costs	transferred to 2200-2449.	
2012 Tot	al		1,901	551	0	20.0		
2013	Othe	er	0	0	0	0.0	CCTR Transf From 2100-3082.000	SOMAHONY20170308005212250
Explanat	tion:	SCG Ap	p Custome	er Info Sy	/stems	costs	transferred to 2200-2449.	
2013	Othe	er	-2	0	0	0.0	CCTR Transf From 2100-3083.000	SOMAHONY20170308010613283
Explanat	tion:	SCG Ap	ps Field Se	ervices c	osts tra	ansferi	red to 2200-2450.	
2013	Othe	er	-4	8	0	0.0	CCTR Transf From 2100-3082.000	SOMAHONY20170308005238393
Explanat	tion:	SCG Ap	p Custome	er Info Sy	/stems	costs	transferred to 2200-2449.	

Note: Totals may include rounding differences.

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-26-WP/Witness: C. Olmsted Page 9 of 190

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Workpaper:	2IT001.000 - IT Applications NSS

<u>Year</u>	<u>Adj</u> G	roup	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FT</u>	<u>E Adj Type</u>	<u>RefID</u>
2013	Othe	r	0	0	0	0.0	CCTR Transf From 2100-3082.000	SOMAHONY20170308005316337
Explana	tion:	SCG Ap	p Custome	r Info Sys	stems c	osts	transferred to 2200-2449.	
2013	Othe	r	2	46	0	0.0	CCTR Transf From 2100-3082.000	SOMAHONY20170308005350263
Explana	tion:	SCG Ap	p Custome	r Info Sys	stems c	osts	transferred to 2200-2449.	
2013 Tot	tal		-5	54	0	0.0		
2014 Tot	tal		0	0	0	0.0		
2015 Tot	tal		0	0	0	0.0		
2016	Aliso		-10	-15	0	-0.2	1-Sided Adj	SOMAHONY20170223170431240
Explana	tion:	2016 Ali	so Canyon	- Remov	ing Pro	ducti	ve Labor and Purchased Services	
2016	Aliso		0	0	0	-0.1	1-Sided Adj	SOMAHONY20170223170808563
Explana	tion:	2016 Ali	so Canyon	- Remov	ing Pro	ducti	ve Labor	
2016	Aliso		-10	-15	0	-0.1	1-Sided Adj	SOMAHONY20170223171025427
Explana	Explanation: 2016 Aliso Canyon - Removing Productive Labor and Purchased Services							
2016	Aliso		-55	0	0	-0.5	1-Sided Adj	SOMAHONY20170223172126203
Explana	tion:	2016 Ali	so Canyon	- Remov	ing Pro	ducti	ve and Overtime Labor	
2016 Tot	tal		-76	-30	0	-0.9		

Area:INFORMATION TECHNOLOGYWitness:Christopher R. OlmstedCategory:B. InfrastructureWorkpaper:2IT002.000

Summary for Category: B. Infrastructure

		In 2016\$ (000) Inc	urred Costs	
	Adjusted-Recorded		Adjusted-Forecast	
	2016	2017	2018	2019
Labor	3,263	3,676	3,776	3,876
Non-Labor	5,105	6,593	7,539	9,129
NSE	0	121	941	1,672
Total	8,368	10,390	12,256	14,677
FTE	30.3	34.4	35.4	36.4

Workpapers belonging to this Category:

2IT002.000 IT Infrastructure NSS

Labor	3,263	3,676	3,776	3,876
Non-Labor	5,105	6,593	7,539	9,129
NSE	0	121	941	1,672
Total	8,368	10,390	12,256	14,677
FTE	30.3	34.4	35.4	36.4

Beginning of Workpaper 2IT002.000 - IT Infrastructure NSS

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub	1. Infrastructure
Workpaper:	2IT002.000 - IT Infrastructure NSS

Activity Description:

The SoCalGas Non-Shared IT Infrastructure costs represent labor and non-labor for the infrastructure area where 100% of the activities are for SoCalGas. These costs are for IT-related infrastructure found at or providing service to SoCalGas facilities (e.g., operating bases and the contact center). SoCalGas non-shared IT Infrastructure activities include, but are not limited to, preventive maintenance, problem diagnosis and resolution, and service request processing and implementation.

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 2016\$ (000) Incurred Costs									
		Adju	isted-Recor	Ad	Adjusted-Forecast					
Years	2012	2013	2014	2015	2016	2017	2018	2019		
Labor	2,671	4,262	3,592	3,572	3,263	3,676	3,776	3,876		
Non-Labor	678	631	3,752	5,454	5,105	6,593	7,539	9,129		
NSE	0	0	0	0	0	121	941	1,672		
Total	3,350	4,893	7,344	9,027	8,368	10,390	12,256	14,677		
FTE	25.4	40.1	34.1	33.1	30.3	34.4	35.4	36.4		

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Workpaper:	2IT002.000 - IT Infrastructure NSS

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs													
Forecast	cast Method Base Forecast Forecast Adjustments			Adjusted-Forecast										
Years	Years		2018	2019	2017	2018	2019	2017	2018	2019				
Labor	Base YR Rec	3,263	3,263	3,263	413	513	613	3,676	3,776	3,876				
Non-Labor	Base YR Rec	5,105	5,105	5,105	1,488	2,434	4,024	6,593	7,539	9,129				
NSE	Base YR Rec	0	0	0	121	941	1,672	121	941	1,672				
Total		8,368	8,368	8,368	2,022	3,888	6,309	10,390	12,256	14,677				
FTE	Base YR Rec	30.3	30.3	30.3	4.1	5.1	6.1	34.4	35.4	36.4				

Forecast Adjustment Details:

<u>Year</u> <u>Adj G</u>	roup	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	RefID		
2017 Other		413	1,088	0	1,501	4.1	1-Sided Adj	SOMAHONY20170627192327737		
Explanation:	planation: Operational Data Center/Infrastructure enhancements. FTE assumptions: salary \$100k, 100% O&M.									
2017 Other		0	0	121	121	0.0	1-Sided Adj	SOMAHONY20161204163105267		
Explanation:	Incremental	O&M fro	om capita	l projects	for 2017					
2017 Other		0	400	0	400	0.0	1-Sided Adj	SOMAHONY20170310012850567		
Explanation:	\$400K tech	nology S	Strategy D	Developm	ient Consu	lting in 20	17			
2017 Total		413	1,488	121	2,022	4.1				
2018 Other		513	1,788	0	2,301	5.1	1-Sided Adj	SOMAHONY20170627192421880		
Explanation:	Operational	Data Ce	enter/Infra	structure	enhancer	nents. FTE	E assumptions:	salary \$100k, 100% O&M.		
2018 Other		0	0	941	941	0.0	1-Sided Adj	SOMAHONY20161204163035300		
Explanation:	Incremental	O&M fro	om capita	l projects	for 2018					
2018 Other		0	646	0	646	0.0	1-Sided Adj	SOMAHONY20170511081411720		
Explanation:	Office 365 a	innual si	ubscriptio	n						
2018 Total		513	2,434	941	3,888	5.1				
2019 Other		613	2,087	0	2,700	6.1	1-Sided Adj	SOMAHONY20170627192516550		
Explanation:	Operational	Data Ce	enter/Infra	structure	enhancer	nents. FTE	E assumptions:	salary \$100k, 100% O&M.		

Note: Totals may include rounding differences. SCG/INFORMATION TECHNOLOGY/Exh No:SCG-26-WP/Witness: C. Olmsted Page 14 of 190

Area: Witness: Category: Category-Sub: Workpaper:	INFORMATIO Christopher R B. Infrastructu 1. Infrastructur 2IT002.000 - I	Olmsted re re		S						
Year Adj Gro	oup Labor	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	Adj_Type	RefID			
2019 Other	0	0	1,672	1,672	0.0	1-Sided Adj	SOMAHONY20161204163130423			
Explanation:	Incremental O&M f	rom capit	al projects	s for 2019						
2019 Other	0	1,937	0	1,937	0.0	1-Sided Adj	SOMAHONY20170511081517583			
Explanation:	Office 365 annual	Office 365 annual subscription								
2019 Total	613	4,024	1,672	6,309	6.1					

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Workpaper:	2IT002.000 - IT Infrastructure NSS

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
ecorded (Nominal \$)*					
Labor	1,825	2,943	2,710	2,644	2,629
Non-Labor	651	615	3,762	5,436	5,116
NSE	0	0	0	0	0
Total	2,475	3,558	6,472	8,080	7,745
FTE	19.2	30.2	27.0	25.0	24.4
djustments (Nominal \$) *	*				
Labor	272	465	235	357	173
Non-Labor	9	8	3	4	-11
NSE	0	0	0	0	0
Total	281	474	238	362	162
FTE	2.6	4.1	2.2	3.4	1.5
ecorded-Adjusted (Nomin	nal \$)				
Labor	2,097	3,408	2,945	3,001	2,802
Non-Labor	659	623	3,764	5,440	5,105
NSE	0	0	0	0	0
Total	2,756	4,032	6,709	8,441	7,907
FTE	21.8	34.3	29.2	28.4	25.9
acation & Sick (Nominal S	\$)				
Labor	336	566	481	486	461
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	336	566	481	486	461
FTE	3.6	5.8	4.9	4.8	4.4
scalation to 2016\$					
Labor	239	287	167	85	0
Non-Labor	19	8	-12	14	0
NSE	0	0	0	0	0
Total	258	295	154	100	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2016\$)				
Labor	2,671	4,262	3,592	3,572	3,263
Non-Labor	678	631	3,752	5,454	5,105
NSE	0	0	0	0	0
Total	3,350	4,893	7,344	9,027	8,368
FTE	25.4	40.1	34.1	33.2	30.3

* 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.*

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-26-WP/Witness: C. Olmsted Page 16 of 190

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Workpaper:	2IT002.000 - IT Infrastructure NSS

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs										
	Years	2012	2013	2014	2015	2016				
Labor		272	465	235	357	173				
Non-Labor		9	8	3	4	-11				
NSE		0	0	0	0	0				
	Total [–]	281	474	238	362	162				
FTE		2.6	4.1	2.2	3.4	1.5				

Detail of Adjustments to Recorded:

Year	<u>Adj</u> Gı	oup <u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type	RefID
2012	Other	96	3	0	0.6	1-Sided Adj	SOMAHONY20170224105911070
Explana	tion: l	T employee xfers	from SD0	GE 1IT	002 tc	SCG.	
2012	Other	176	6	0	2.0	CCTR Transf From 2200-2456.000	SHAO20170310144325197
Explana	tion: S	CG Network Sup	port cost	s move	to co	st center 2100-0619.	
2012 Tot	tal	272	9	0	2.6		
2013	Other	183	0	0	1.6	CCTR Transf From 2200-2456.000	SHAO20170310144525283
Explana	tion: S	CG Network Sup	port cost	s move	to co	st center 2100-0619.	
2013	Other	282	8	0	2.5	CCTR Transf From 2200-2460.000	SHAO20170308141210583
Explana	tion: \	/oice enterprise s	upport co	sts mo	ve to	cost center 2200-2395. Cost center 2200	0-2460 has been retired.
2013	Other	0	0	0	0.0	CCTR Transf From 2200-2460.000	SHAO20170308141330677
Explana	tion: \	/oice enterprise s	upport co	sts mo	ve to	cost center 2200-2395. Cost center 2200	0-2460 has been retired.
2013 Tot	tal	465	8	0	4.1		
2014	Other	235	3	0	2.2	CCTR Transf From 2200-2456.000	SHAO20170310145000593
Explana	tion: S	CG Network Sup	port cost	s move	to co	st center 2100-0619.	
2014 Tot	tal	235	3	0	2.2		
2015	Other	358	5	0	3.4	CCTR Transf From 2200-2456.000	SHAO20170310145319367
Explana	tion: S	CG Network Sup	port cost	s move	to co	st center 2100-0619.	

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Workpaper:	2IT002.000 - IT Infrastructure NSS

<u>Year</u>	<u>Adj</u>	<u>Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FT</u>	<u>E Adj Type</u>	<u>RefiD</u>
2015	Alis	0	-1	0	0	0.0	1-Sided Adj	SOMAHONY20170223185647060
Explanat	ion:	2015 Ali	iso Canyon	- Removi	ng Pro	ducti	ve Labor	
2015	Alis	0	0	-1	0	0.0	1-Sided Adj	SOMAHONY20170223185918077
Explanat	ion:	2015 Ali	iso Canyon	- Removi	ng Har	dwar	-e	
2015 Tota	al		357	4	0	3.4		
2016	Oth	er	0	0	0	0.0	CCTR Transf From 2200-2456.000	SHAO20170310145607900
Explanat	ion:	SCG Ne	etwork Supp	ort costs	move t	:o co	st center 2100-0619.	
2016	Alis	0	-2	-11	0	-0.1	1-Sided Adj	SOMAHONY20170223173138317
Explanat	ion:	2016 Ali	iso Canyon	- Removi	ng Pro	ducti	ve Labor and Hardware	
2016	Oth	er	175	0	0	1.6	CCTR Transf From 2200-2456.000	SHAO20170310145513390
Explanat	ion:	SCG Ne	etwork Supp	ort costs	move t	:o co	st center 2100-0619.	
2016	Alis	0	0	0	0	0.0	1-Sided Adj	SOMAHONY20170511104629553
Explanat	ion:	Aliso Ca	anyon Non-I	abor adju	stment			
2016 Tota	al		173	-11	0	1.5		

Area:INFORMATION TECHNOLOGYWitness:Christopher R. OlmstedCategory:C. IT SupportWorkpaper:2IT003.000

Summary for Category: C. IT Support

	In 2016\$ (000) Incurred Costs									
	Adjusted-Recorded									
	2016	2017	2018	2019						
Labor	84	285	247	247						
Non-Labor	68	-302	-1,701	-3,277						
NSE	0	556	2,093	1,390						
Total	152	539	639	-1,640						
FTE	1.0	1.0	1.0	1.0						

Workpapers belonging to this Category:

2IT003.000 IT Support NSS

Labor	84	285	247	247
Non-Labor	68	-302	-1,701	-3,277
NSE	0	556	2,093	1,390
Total	152	539	639	-1,640
FTE	1.0	1.0	1.0	1.0

Beginning of Workpaper 2IT003.000 - IT Support NSS

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	C. IT Support
Category-Sub	1. IT Support
Workpaper:	2IT003.000 - IT Support NSS

Activity Description:

The costs in SoCalGas Non-Shared IT Support cover non-labor expenses recorded by the Vice President of IT along with costs and savings associated with IT's FoF 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

This method is most appropriate because the base year most accurately represents the current state of the IT workpapers. Historical costs have fluctuated between various workgroups as 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 2016\$ (000) Incurred Costs									
		Adju	isted-Recor	ded		Ad	Adjusted-Forecast			
Years	2012	2013	2014	2015	2016	2017	2018	2019		
Labor	47	19	211	40	84	286	248	248		
Non-Labor	953	24	163	119	68	-302	-1,701	-3,277		
NSE	0	0	0	0	0	556	2,093	1,390		
Total	1,000	43	374	159	152	540	640	-1,639		
FTE	0.6	0.1	2.1	0.5	0.9	1.0	1.0	1.0		

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	C. IT Support
Category-Sub:	1. IT Support
Workpaper:	2IT003.000 - IT Support NSS

Summary of Adjustments to Forecast:

				In 2016	6 \$(000) In	curred Cos	sts				
Forecast Method			Base	Forecas	st	Forec	ast Adjust	ments	Adjus	sted-Forec	ast
Years		2	017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Red		84	84	84	201	163	163	285	247	247
Non-Labor	Base YR Red		68	68	68	-370	-1,769	-3,345	-302	-1,701	-3,277
NSE	Base YR Red	;	0	0	0	556	2,093	1,390	556	2,093	1,390
Total			152	152	152	387	487	-1,792	539	639	-1,640
FTE	Base YR Red		1.0	1.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0
Forecast Adjust	ment Details	:									
Year Adj Gro	oup	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Ty</u>	<u>oe</u>		<u>RefID</u>	
2017 FOF-Imple	mentation	0	0	556	556	0.0	1-Sided	Adj SC	MAHONY2	017062815	2744387
Explanation:	FOF Implem	nentatio	n Costs								
2017 FOF-Ongo	ing	201	-186	0	15	0.0	1-Sided	Adj SC	MAHONY2	017062815	2907970
Explanation:	FOF Ongoir	ng Cost	S								
2017 FOF-Ongo	ing	0	-184	0	-184	0.0	1-Sided	Adj SC	MAHONY2	017071915	5536713
Explanation:	FoF Group	101 ber	nefits rela	ited to co	ontracting/p	procuremer	nt efficienci	es			
2017 Total		201	-370	556	387	0.0					
2018 FOF-Imple	mentation	0	0	2,093	2,093	0.0	1-Sided	Adj SC	MAHONY20	017062815	2758010
Explanation:	FOF Implem	nentatio	n Costs								
2018 FOF-Ongo	ing	163	-1,231	0	-1,068	0.0	1-Sided	Adj SC	MAHONY2	017062815	2937080
Explanation:	FOF Ongoir	ng Cost	S								
2018 FOF-Ongo	ing	0	-538	0	-538	0.0	1-Sided	Adj SC	MAHONY2	017071915	5555060
Explanation:	FoF Group	101 ber	nefits rela	ted to co	ontracting/p	orocuremer	nt efficienci	es			
2018 Total		163	-1,769	2,093	487	0.0					
2019 FOF-Imple	mentation	0	0	1,390	1,390	0.0	1-Sided	Adj SC	MAHONY2	017062815	2811480
Explanation:	FOF Implem	antatio	n Costs								

Note: Totals may include rounding differences.

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-26-WP/Witness: C. Olmsted

Area: Witness: Category: Category-Sub: Workpaper:	Christo C. IT S 1. IT St	pher R. upport upport	N TECHN Olmsted					
Year Adj Grou	<u>ar</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	Adj_Type	RefID
2019 FOF-Ongoi	ng	163	-2,788	0	-2,625	0.0	1-Sided Adj	SOMAHONY20170628153006360
Explanation:	FOF Ongoir	ng Cost	3					
2019 FOF-Ongoi	ng	0	-557	0	-557	0.0	1-Sided Adj	SOMAHONY20170719155608953
Explanation:	FoF Group	101 ber	efits relat	ed to cor	ntracting/pro	ocurement	efficiencies	
2019 Total		163	-3,345	1,390	-1,792	0.0		

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	C. IT Support
Category-Sub:	1. IT Support
Workpaper:	2IT003.000 - IT Support NSS

Determination of Adjusted-Recorded (Incurred Costs):

·····,	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
ecorded (Nominal \$)*					
Labor	37	15	173	33	73
Non-Labor	926	24	164	119	68
NSE	0	0	0	0	0
Total	963	39	337	152	140
FTE	0.5	0.1	1.8	0.4	0.8
djustments (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
ecorded-Adjusted (Nomin	nal \$)				
Labor	37	15	173	33	73
Non-Labor	926	24	164	119	68
NSE	0	0	0	0	0
Total	963	39	337	152	140
FTE	0.5	0.1	1.8	0.4	0.8
acation & Sick (Nominal \$	5)				
Labor	6	2	28	5	12
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	6	2	28	5	12
FTE	0.1	0.0	0.3	0.1	0.1
scalation to 2016\$					
Labor	4	1	10	1	0
Non-Labor	27	0	-1	0	0
NSE	0	0	0	0	0
Total	31	2	9	1	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Consta	ant 2016\$)				
Labor	47	19	211	40	84
Non-Labor	953	24	163	119	68
NSE	0	0	0	0	0
Total	1,000	43	374	159	152
FTE	0.6	0.1	2.1	0.5	0.9

* After company-wide exclusions of Non-GRC costs

** Refer to "Detail of Adjustments to Recorded" page for line item adjustments *Note: Totals may include rounding differences.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	C. IT Support
Category-Sub:	1. IT Support
Workpaper:	2IT003.000 - IT Support NSS

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs									
	Years	2012	2013	2014	2015	2016			
Labor		0	0	0	0	0			
Non-Labor		0	0	0	0	0.045			
NSE		0	0	0	0	0			
	Total	0	0	0	0	0.045			
FTE		0.0	0.0	0.0	0.0	0.0			

Detail of Adjustments to Recorded:

Year	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	ReflD
2012 Tota	al	0	0	0	0.0		
2013 Tota	al	0	0	0	0.0		
2014 Tota	al	0	0	0	0.0		
2015 Tota	al	0	0	0	0.0		
2016	Aliso	0	0	0	0.0	1-Sided Adj	SOMAHONY20170511104744450
Explanat	ion: Aliso Car	iyon Non-	labor adj	ustmen	t		
2016 Tota	al	0	0	0	0.0		

Area: INFORMATION TECHNOLOGY

Witness: Christopher R. Olmsted

Summary of Shared Services Workpapers:

	In 2016 \$ (000) Incurred Costs						
	Adjusted- Recorded	Adjusted-Forecast					
Description	2016	2017	2018	2019			
A. Applications	5,115	5,460	6,160	6,160			
B. Infrastructure	5,153	5,332	5,332	5,332			
C. IT Support	358	358	358	358			
Total	10,626	11,150	11,850	11,850			

Area:INFORMATION TECHNOLOGYWitness:Christopher R. OlmstedCategory:A. ApplicationsCost Center:VARIOUS

Summary for Category: A. Applications

	In 2016\$ (000) Incurred Costs								
	Adjusted-Recorded		Adjusted-Forecast						
	2016	2017	2018	2019					
Labor	4,022	4,230	4,880	4,880					
Non-Labor	1,093	1,230	1,280	1,280					
NSE	0	0	0	0					
Total	5,115	5,460	6,160	6,160					
FTE	34.7	36.3	41.3	41.3					
Cost Centers belonging	g to this Category:								
2200-2418.000 DIREC	TOR - SCG APPLICATIONS SE	RVICES							
Labor	205	413	1,063	1,063					
Non-Labor	8	145	195	195					
NSE	0	0	0	0					
Total	213	558	1,258	1,258					
FTE	1.1	2.7	7.7	7.7					
2200-2444.000 SCG SI	UPPLY CHAIN SERVICES								
Labor	170	170	170	170					
Non-Labor	61	61	61	61					
NSE	0	0	0	0					
Total	231	231	231	231					
FTE	1.6	1.6	1.6	1.6					
2200-2445.000 SCG W	ORK MANAGEMENT SERVICE	S							
Labor	1.138	1.138	1.138	1.138					

2200-2445.000 SCG WOR	K MANAGEMENT SERV	/ICES		
Labor	1,138	1,138	1,138	1,138
Non-Labor	75	75	75	75
NSE	0	0	0	0
Total	1,213	1,213	1,213	1,213
FTE	10.5	10.5	10.5	10.5
2200-2446.000 SCG GIS 8	& CAD SERVICES			
Labor	159	159	159	159
Non-Labor	13	13	13	13
NSE	0	0	0	0
Total	172	172	172	172
FTE	1.4	1.4	1.4	1.4
2200-2447.000 SCG SOFT	WARE DEV - DATABAS	3E		
Labor	553	553	553	553
Non-Labor	18	18	18	18
NSE	0	0	0	0
Total	571	571	571	571
FTE	4.4	4.4	4.4	4.4

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Cost Center:	VARIOUS

	In 2016\$ (000) Incurred Costs								
	Adjusted-Recorded		Adjusted-Forecast						
	2016	2017	2018	2019					
2200-2451.000 SCG	APPS MAJ MRK APP - SCG								
Labor	889	889	889	889					
Non-Labor	560	560	560	560					
NSE	0	0	0	0					
Total	1,449	1,449	1,449	1,449					
FTE	7.7	7.7	7.7	7.7					
2200-2470.000 SCG I	T COMPLIANCE MANAGEME	NT							
Labor	554	554	554	554					
Non-Labor	143	143	143	143					
NSE	0	0	0	0					
Total	697	697	697	697					
FTE	4.8	4.8	4.8	4.8					
2200-2503.000 ARCH	IITECTURE AND INTEGRATIC	DN - SCG							
Labor	314	314	314	314					
Non-Labor	214	214	214	214					
NSE	0	0	0	0					
Total	528	528	528	528					
FTE	2.9	2.9	2.9	2.9					
2200-2596.000 SCG I	T QUALITY ASSURANCE								
Labor	40	40	40	40					
Non-Labor	1	1	1	1					
NSE	0	0	0	0					
Total	41	41	41	41					
FTE	0.3	0.3	0.3	0.3					

Beginning of Workpaper 2200-2418.000 - DIRECTOR - SCG APPLICATIONS SERVICES

Area:INFORMATION TECHNOLOGYWitness:Christopher R. OlmstedCategory:A. ApplicationsCategory-Sub1. ApplicationsCost Center:2200-2418.000 - DIRECTOR - SCG APPLICATIONS SERVICES

Activity Description:

This cost center is for the support of SCG IT applications. This is a director 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

N/A

Summary of Results:

Γ								
		Adju	isted-Recor	Adjusted-Forecast				
Years	2012	2013	2014	2015	2016	2017	2018	2019
Labor	136	198	201	202	205	413	1,063	1,063
Non-Labor	173	18	41	15	8	145	195	195
NSE	0	0	0	0	0	0	0	0
Total	309	217	242	217	213	558	1,258	1,258
FTE	0.8	1.2	1.2	1.2	1.2	2.7	7.7	7.7

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2418.000 - DIRECTOR - SCG APPLICATIONS SERVICES

Cost Center Allocations (Incurred Costs):

	2016 Adjusted-Recorded						2017 Adjusted-Forecast					
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE		
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0		
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0		
Subj. To % Alloc.	205	8	0	213	1.1	413	145	0	558	2.7		
Total Incurred	205	8	0	213	1.1	413	145	0	558	2.7		
% Allocation												
Retained	81.13%	81.13%				78.17%	78.17%					
SEU	15.15%	15.15%				17.46%	17.46%					
CORP	1.73%	1.73%				1.99%	1.99%					
Unreg	1.99%	1.99%				2.38%	2.38%					
		2018 Adju	sted-Fore	cast	2019 Adjusted-Forecast							

	· · · · · · · · · · · · · · · · · · ·					· · · · · · · · · · · · · · · · · · ·				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	1,063	195	0	1,258	7.7	1,063	195	0	1,258	7.7
Total Incurred	1,063	195	0	1,258	7.7	1,063	195	0	1,258	7.7
% Allocation										
Retained	78.17%	78.17%				78.17%	78.17%			
SEU	17.46%	17.46%				17.46%	17.46%			
CORP	1.99%	1.99%				1.99%	1.99%			
Unreg	2.38%	2.38%				2.38%	2.38%			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2418.000 - DIRECTOR - SCG APPLICATIONS SERVICES

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

The weighted average of all Dept. cost centers Shared Servcice Allocations was taken of all cost centers under the IT SCG Application department. The weighted average of all Dept. cost centers Shared Servcice Allocations reflects the level of support provided to each affiliate by this cost center.

Cost Center Allocation Percentage for 2017

The weighted average of all Dept. cost centers Shared Servcice Allocations was taken of all cost centers under the IT SCG Application department. The weighted average of all Dept. cost centers Shared Servcice Allocations reflects the level of support provided to each affiliate by this cost center.

Cost Center Allocation Percentage for 2018

The weighted average of all Dept. cost centers Shared Servcice Allocations was taken of all cost centers under the IT SCG Application department. The weighted average of all Dept. cost centers Shared Servcice Allocations reflects the level of support provided to each affiliate by this cost center.

Cost Center Allocation Percentage for 2019

The weighted average of all Dept. cost centers Shared Servcice Allocations was taken of all cost centers under the IT SCG Application department. The weighted average of all Dept. cost centers Shared Servcice Allocations reflects the level of support provided to each affiliate by this cost center.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2418.000 - DIRECTOR - SCG APPLICATIONS SERVICES

Summary of Adjustments to Forecast:

In 2016 \$(000) Incurred Costs											
Forecast	t Method	Base Forecast Forecast Adjustments Adjuste					ted-Forecast				
Years	5	2017	2018	2019	2017 2018 2019		2017	2018	2019		
Labor	Base YR Rec	205	205	205	208	858	858	413	1,063	1,063	
Non-Labor	Base YR Rec	8	8	8	137	187	187	145	195	195	
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0	
Tota	I	213	213	213	345	1,045	1,045	558	1,258	1,258	
FTE	Base YR Rec	1.1	1.1	1.1	1.6	6.6	6.6	2.7	7.7	7.7	

Forecast Adjustment Details:

Forecast Aujust	inent Betailt							
Year Adj Gro	oup	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	RefID
2017 Other		208	20	0	228	1.6	1-Sided Adj	SOMAHONY20161121133940960
Explanation:	Adding 2 F per employ			•	ount. Assur	mes 80%	O&C and \$130	<average \$10k<="" plus="" salary="" td=""></average>
2017 Other		0	117	0	117	0.0	1-Sided Adj	SOMAHONY20170511100817250
Explanation:	\$117k for a	additional	UST reso	urces fo	r My Accou	int and Ma	ajor Markets.	
2017 Total		208	137	0	345	1.6		
2018 Other		208	20	0	228	1.6	1-Sided Adj	SOMAHONY20161121134119803
Explanation:	Adding 2 F per employ			•	ount. Assur	mes 80%	O&C and \$130	<average \$10k<="" plus="" salary="" td=""></average>
2018 Other		650	50	0	700	5.0	1-Sided Adj	SOMAHONY20161129102958930
Explanation:	5 Advance employee.	d Meter F	TEs move	e to IT in	2018. 100	% O&C \$	130k average s	alary and \$10k non-labor per
2018 Other		0	117	0	117	0.0	1-Sided Adj	SOMAHONY20170511100845277
Explanation:	\$117k for a	additional	UST reso	urces fo	r My Accou	int and Ma	ajor Markets.	
2018 Total		858	187	0	1,045	6.6		
2019 Other		208	20	0	228	1.6	1-Sided Adj	SOMAHONY20161121134137823
Explanation:	Adding 2 F per employ			•	ount. Assur	mes 80%	O&C and \$130	<average \$10k<="" plus="" salary="" td=""></average>

Area: Witness: Category: Category-Sub: Cost Center:	Christophe A. Applica 1. Applica		1	CG APPLIC	ATIONS S	SERVICES	
Year Adj Gro	oup La	bor <u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj_Type</u>	RefID
2019 Other	65	50 50	0	700	5.0	1-Sided Adj	SOMAHONY20161129103050380
Explanation:	5 Advanced Meter FTEs move to IT in 2018. 100% O&C \$130k average salary and \$10k non-labor per employee.						
2019 Other		0 117	0	117	0.0	1-Sided Adj	SOMAHONY20170511100901270
Explanation:	\$117k for addit	ional UST re	sources fo	or My Accou	int and Ma	ijor Markets.	
2019 Total	8	58 187	0	1,045	6.6		

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2418.000 - DIRECTOR - SCG APPLICATIONS SERVICES

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000) 2012	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
ecorded (Nominal \$)*					
Labor	110	163	169	171	176
Non-Labor	164	18	40	15	8
NSE	0	0	0	0	0
Total	274	181	209	187	184
FTE	0.7	1.0	1.0	1.0	1.0
djustments (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
ecorded-Adjusted (Nomir	nal \$)				
Labor	110	163	169	171	176
Non-Labor	164	18	40	15	8
NSE	0	0	0	0	0
Total	274	181	209	187	184
FTE	0.7	1.0	1.0	1.0	1.0
acation & Sick (Nominal S	\$)				
Labor	18	27	28	28	29
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	18	27	28	28	29
FTE	0.1	0.2	0.2	0.2	0.2
scalation to 2016\$					
Labor	8	8	4	2	0
Non-Labor	10	1	1	0	0
NSE	0	0	0	0	0
Total	17	8	5	3	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	ant 2016\$)				
Labor	136	198	201	202	205
Non-Labor	173	18	41	15	8
NSE	0	0	0	0	0
Total	309	217	242	217	213
FTE	0.8	1.2	1.2	1.2	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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2418.000 - DIRECTOR - SCG APPLICATIONS SERVICES

Summary of Adjustments to Recorded:

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

Year	Adj Group	<u>Labor</u>	<u>NLbr</u>	<u>NSE FTE</u>	Adj Type	RefID

Beginning of Workpaper 2200-2444.000 - SCG SUPPLY CHAIN SERVICES

Area:	INFORMATION TECHNOLOGY					
Witness:	Christopher R. Olmsted					
Category:	A. Applications					
Category-Sub	1. Applications					
Cost Center:	2200-2444.000 - SCG SUPPLY CHAIN SERVICES					

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 2016\$ (000) Incurred Costs											
		Adju	isted-Recor	ded		Adjusted-Forecast						
Years	2012	2013	2014	2015	2016	2017	2018	2019				
Labor	0	349	316	359	170	170	170	170				
Non-Labor	0	9	69	18	61	62	62	62				
NSE	0	0	0	0	0	0	0	0				
Total	0	358	386	377	231	232	232	232				
FTE	0.0	3.5	3.0	2.0	1.6	1.6	1.6	1.6				

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2444.000 - SCG SUPPLY CHAIN SERVICES

Cost Center Allocations (Incurred Costs):

		2016 Adju	2017 Adjusted-Forecast							
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	1	0	1	0.0	0	1	0	1	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	170	61	0	231	1.6	170	61	0	231	1.6
Total Incurred	170	62	0	232	1.6	170	62	0	232	1.6
% Allocation										
Retained	61.91%	61.91%				59.94%	59.94%			
SEU	34.50%	34.50%				36.42%	36.42%			
CORP	3.59%	3.59%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

	2018 Adjusted-Forecast						2019 Adjusted-Forecast			
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	1	0	1	0.0	0	1	0	1	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	170	61	0	231	1.6	170	61	0	231	1.6
Total Incurred	170	62	0	232	1.6	170	62	0	232	1.6
% Allocation										
Retained	59.94%	59.94%				59.94%	59.94%			
SEU	36.42%	36.42%				36.42%	36.42%			
CORP	3.64%	3.64%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2444.000 - SCG SUPPLY CHAIN SERVICES

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

This cost center provides software development 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 2017

This cost center provides software development 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 2018

This cost center provides software development 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 2019

This cost center provides software development 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.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2444.000 - SCG SUPPLY CHAIN SERVICES

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs										
Forecast Method Base Forecast			Forec	ast Adjust	ments	Adjusted-Forecast					
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019	
Labor	Base YR Rec	170	170	170	0	0	0	170	170	170	
Non-Labor	Base YR Rec	61	61	61	0	0	0	61	61	61	
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0	
Tota	Total		231	231	0	0	0	231	231	231	
FTE	Base YR Rec	1.6	1.6	1.6	0.0	0.0	0.0	1.6	1.6	1.6	

<u>Year</u>	Adj Group	<u>Labor</u>	<u>NLbr</u>	NSE	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	RefID
				NOL				

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2444.000 - SCG SUPPLY CHAIN SERVICES

Determination of Adjusted-Recorded (Incurred Costs):

etermination of Adjusted-r	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	0	287	266	305	146
Non-Labor	0	9	68	18	61
NSE	0	0	0	0	0
Total	0	296	334	323	207
FTE	0.0	3.0	2.6	1.6	1.4
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	l \$)				
Labor	0	287	266	305	146
Non-Labor	0	9	68	18	61
NSE	0	0	0	0	0
Total	0	296	334	323	207
FTE	0.0	3.0	2.6	1.6	1.4
acation & Sick (Nominal \$)					
Labor	0	48	43	49	24
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	48	43	49	24
FTE	0.0	0.5	0.4	0.3	0.2
scalation to 2016\$					
Labor	0	13	7	4	0
Non-Labor	0	0	2	0	0
NSE	0	0	0	0	0
Total	0	14	8	5	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constan	nt 2016\$)				
Labor	0	349	316	359	170
Non-Labor	0	9	69	18	61
NSE	0	0	0	0	0
Total	0	358	386	377	231
FTE	0.0	3.5	3.0	1.9	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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2444.000 - SCG SUPPLY CHAIN SERVICES

Summary of Adjustments to Recorded:

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

Year	Adj Group	<u>Labor</u>	<u>NLbr</u>	<u>NSE FTE</u>	Adj Type	RefID

Beginning of Workpaper 2200-2445.000 - SCG WORK MANAGEMENT SERVICES

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub	1. Applications
Cost Center:	2200-2445.000 - SCG WORK MANAGEMENT SERVICES

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 Field Force, and CMS/NBMS.

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 2016\$ (000) Incurred Costs											
		Adju	isted-Recor	Adjusted-Forecast								
Years	2012	2013	2014	2015	2016	2017	2018	2019				
Labor	1,009	1,049	1,001	1,091	1,138	1,138	1,138	1,138				
Non-Labor	38	169	135	52	75	75	75	75				
NSE	0	0	0	0	0	0	0	0				
Total	1,048	1,218	1,135	1,142	1,213	1,213	1,213	1,213				
FTE	9.3	9.8	9.0	10.0	10.5	10.5	10.5	10.5				

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2445.000 - SCG WORK MANAGEMENT SERVICES

Cost Center Allocations (Incurred Costs):

	2016 Adjusted-Recorded						2017 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE	
Directly Retained	0	3	0	3	0.0	0	3	0	3	0.0	
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0	
Subj. To % Alloc.	1,138	72	0	1,210	10.5	1,138	72	0	1,210	10.5	
Total Incurred	1,138	75	0	1,213	10.5	1,138	75	0	1,213	10.5	
% Allocation											
Retained	66.73%	66.73%				55.81%	55.81%				
SEU	33.27%	33.27%				44.19%	44.19%				
CORP	0.00%	0.00%				0.00%	0.00%				
Unreg	0.00%	0.00%				0.00%	0.00%				
		2018 Adju	otod Eoro				2019 Adju	otod Fora	aaat		
	Labor	Non-Labor	NSF	Total	FTF	Labor	Non-Labor	NSE	Total	FTF	

	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	3	0	3	0.0	0	3	0	3	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	1,138	72	0	1,210	10.5	1,138	72	0	1,210	10.5
Total Incurred	1,138	75	0	1,213	10.5	1,138	75	0	1,213	10.5
% Allocation										
Retained	55.81%	55.81%				55.81%	55.81%			
SEU	44.19%	44.19%				44.19%	44.19%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2445.000 - SCG WORK MANAGEMENT SERVICES

Cost Center Allocation Percentage Drivers/Methodology:

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 spilt 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 2017

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 spilt 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 2018

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 spilt 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 2019

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 spilt 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.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2445.000 - SCG WORK MANAGEMENT SERVICES

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs											
Forecast	Forecast Method		Base Forecast			ast Adjust	ments	Adjusted-Forecast				
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019		
Labor	Base YR Rec	1,138	1,138	1,138	0	0	0	1,138	1,138	1,138		
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		1,213	1,213	1,213	0	0	0	1,213	1,213	1,213		
FTE	Base YR Rec	10.5	10.5	10.5	0.0	0.0	0.0	10.5	10.5	10.5		

Year Adj Group Labor NLbr NSE Total FTE Adj Type RefID	
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Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2445.000 - SCG WORK MANAGEMENT SERVICES

Determination of Adjusted-Recorded (Incurred Costs):

2012 (\$000) 2013 (\$000) 2014 (\$000) 2015 (\$000) 2015 (\$000) 2016 (\$000)						
ecorded (Nominal \$)*				(, ,	. ,	
Labor	0	864	841	927	977	
Non-Labor	0	163	132	51	75	
NSE	0	0	0	0	0	
Total	0	1,027	973	978	1,052	
FTE	0.0	8.4	7.7	8.6	9.0	
djustments (Nominal \$) **						
Labor	821	0	0	0	0	
Non-Labor	36	0	0	0	0	
NSE	0	0	0	0	0	
Total	857	0	0	0	0	
FTE	8.0	0.0	0.0	0.0	0.0	
ecorded-Adjusted (Nomin	al \$)					
Labor	821	864	841	927	977	
Non-Labor	36	163	132	51	75	
NSE	0	0	0	0	0	
Total	857	1,027	973	978	1,052	
FTE	8.0	8.4	7.7	8.6	9.0	
acation & Sick (Nominal \$)					
Labor	131	144	137	150	161	
Non-Labor	0	0	0	0	0	
NSE	0	0	0	0	0	
Total	131	144	137	150	161	
FTE	1.3	1.4	1.3	1.4	1.5	
scalation to 2016\$						
Labor	57	40	22	14	0	
Non-Labor	2	7	3	1	0	
NSE	0	0	0	0	0	
Total	59	47	25	14	0	
FTE	0.0	0.0	0.0	0.0	0.0	
ecorded-Adjusted (Consta	ant 2016\$)					
Labor	1,009	1,049	1,001	1,091	1,138	
Non-Labor	38	169	135	52	75	
NSE	0	0	0	0	0	
Total	1,048	1,218	1,135	1,142	1,213	
FTE	9.3	9.8	9.0	10.0	10.5	

* 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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2445.000 - SCG WORK MANAGEMENT SERVICES

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs										
	Years	2012	2013	2014	2015	2016				
Labor		821	0	0	0	0				
Non-Labor		36	0	0	0	0				
NSE		0	0	0	0	0				
	Total	857	0	0	0	0				
FTE		8.0	0.0	0.0	0.0	0.0				

Detail of Adjustments to Recorded:

<u>Year Ad</u>	Group	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type	RefID
2012 O	ther	821	36	0	8.0	CCTR Transf From 2100-3088.000	SOMAHONY20161104163356100
Explanation:	IT Employ	yee Trans	fer from	SDGE	to SC	G as of 2013.	
2012 Total		821	36	0	8.0		
2013 Total		0	0	0	0.0		
2014 Total		0	0	0	0.0		
2015 Total		0	0	0	0.0		
2016 Total		0	0	0	0.0		

Beginning of Workpaper 2200-2446.000 - SCG GIS & CAD SERVICES

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub	1. Applications
Cost Center:	2200-2446.000 - SCG GIS & CAD SERVICES

Activity Description:

This cost center supports GIS Applications services for Gas at 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 2016\$ (000) Incurred Costs											
		Adju	Adjusted-Forecast									
Years	2012	2013	2014	2015	2016	2017	2018	2019				
Labor	0	304	252	335	159	159	159	159				
Non-Labor	0	21	55	-2	13	13	13	13				
NSE	0	0	0	0	0	0	0	0				
Total	0	324	307	333	171	172	172	172				
FTE	0.0	2.8	2.3	2.9	1.4	1.4	1.4	1.4				

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2446.000 - SCG GIS & CAD SERVICES

Cost Center Allocations (Incurred Costs):

		2016 Adju	2017 Adjusted-Forecast							
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	159	13	0	172	1.4	159	13	0	172	1.4
Total Incurred	159	13	0	172	1.4	159	13	0	172	1.4
% Allocation										
Retained	86.19%	86.19%				85.35%	85.35%			
SEU	13.81%	13.81%				14.65%	14.65%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			
		2018 Adiu	sted-Fore	cast			2019 Adiı	usted-Fore	cast	

	2018 Adjusted-Forecast						2019 Adjusted-Forecast			
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	159	13	0	172	1.4	159	13	0	172	1.4
Total Incurred	159	13	0	172	1.4	159	13	0	172	1.4
% Allocation										
Retained	85.35%	85.35%				85.35%	85.35%			
SEU	14.65%	14.65%				14.65%	14.65%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2446.000 - SCG GIS & CAD SERVICES

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

For 2016 the allocations for supporting the enterprise GIS application was reviewed and a methodology using miles of pipe and wires for each Company was determined to be most relevant. This methodology was reviewed and approved by IT and the primary business owners of both Companies.

Cost Center Allocation Percentage for 2017

The allocations for supporting the enterprise GIS application was reviewed and a methodology using miles of pipe and wires for each Company was determined to be most relevant. This methodology was reviewed and approved by IT and the primary business owners of both Companies.

Cost Center Allocation Percentage for 2018

The allocations for supporting the enterprise GIS application was reviewed and a methodology using miles of pipe and wires for each Company was determined to be most relevant. This methodology was reviewed and approved by IT and the primary business owners of both Companies.

Cost Center Allocation Percentage for 2019

The allocations for supporting the enterprise GIS application was reviewed and a methodology using miles of pipe and wires for each Company was determined to be most relevant. This methodology was reviewed and approved by IT and the primary business owners of both Companies.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2446.000 - SCG GIS & CAD SERVICES

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs											
Forecas	Forecast Method Base Forecast Forecast Adjustments Adjusted-Foreca						ast					
Years	s	2017	2018	2019	2017	2018	2019	2017	2018	2019		
Labor	Base YR Rec	159	159	159	0	0	0	159	159	159		
Non-Labor	Base YR Rec	13	13	13	0	0	0	13	13	13		
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0		
Tota	l	171	171	171	0	0	0	171	171	171		
FTE	Base YR Rec	1.4	1.4	1.4	0.0	0.0	0.0	1.4	1.4	1.4		

Year	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	NSE	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	RefID
<u>I cui</u>	Aujoioup			NSE	Total			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2446.000 - SCG GIS & CAD SERVICES

Determination of Adjusted-Recorded (Incurred Costs):

	a-Recorded (Incurred Cos 2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
ecorded (Nominal \$)*	· · ·				
Labor	0	250	212	285	136
Non-Labor	0	20	54	-2	13
NSE	0	0	0	0	0
Total	0	270	265	282	149
FTE	0.0	2.4	2.0	2.5	1.2
djustments (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
ecorded-Adjusted (Nomir	nal \$)				
Labor	0	250	212	285	136
Non-Labor	0	20	54	-2	13
NSE	0	0	0	0	0
Total	0	270	265	282	149
FTE	0.0	2.4	2.0	2.5	1.2
acation & Sick (Nominal S	\$)				
Labor	0	42	35	46	22
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	42	35	46	22
FTE	0.0	0.4	0.3	0.4	0.2
scalation to 2016\$					
Labor	0	12	5	4	0
Non-Labor	0	1	1	0	0
NSE	0	0	0	0	0
Total	0	13	7	4	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2016\$)				
Labor	0	304	252	335	159
Non-Labor	0	21	55	-2	13
NSE	0	0	0	0	0
Total	0	324	307	333	171
FTE	0.0	2.8	2.3	2.9	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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2446.000 - SCG GIS & CAD SERVICES

Summary of Adjustments to Recorded:

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

Year	Adj Group	<u>Labor</u>	<u>NLbr</u>	NSE FTE	Adj Type	RefID

Beginning of Workpaper 2200-2447.000 - SCG SOFTWARE DEV - DATABASE

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub	1. Applications
Cost Center:	2200-2447.000 - SCG SOFTWARE DEV - DATABASE

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:

Γ	In 2016\$ (000) Incurred Costs											
		Adju	isted-Recor	ded		Ad	justed-Fore	cast				
Years	2012	2013	2014	2015	2016	2017	2018	2019				
Labor	907	949	1,053	951	553	553	553	553				
Non-Labor	32	73	3	6	18	18	18	18				
NSE	0	0	0	0	0	0	0	0				
Total	939	1,021	1,055	958	572	571	571	571				
FTE	7.0	7.5	8.4	6.3	4.3	4.4	4.4	4.4				

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2447.000 - SCG SOFTWARE DEV - DATABASE

Cost Center Allocations (Incurred Costs):

[2016 Adju	sted-Reco	rded		2017 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	553	18	0	571	4.4	553	18	0	571	4.4
Total Incurred	553	18	0	571	4.4	553	18	0	571	4.4
% Allocation										
Retained	61.91%	61.91%				59.94%	59.94%			
SEU	34.50%	34.50%				36.42%	36.42%			
CORP	3.59%	3.59%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

	2018 Adjusted-Forecast						2019 Adjusted-Forecast			
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	553	18	0	571	4.4	553	18	0	571	4.4
Total Incurred	553	18	0	571	4.4	553	18	0	571	4.4
% Allocation										
Retained	59.94%	59.94%				59.94%	59.94%			
SEU	36.42%	36.42%				36.42%	36.42%			
CORP	3.64%	3.64%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2017

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2018

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2019

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2447.000 - SCG SOFTWARE DEV - DATABASE

Summary of Adjustments to Forecast:

			In 201	6 \$(000) lı	ncurred Co	sts				
Forecast	t Method	Bas	se Foreca	st	Forec	ast Adjust	ments	Adjus	ted-Forec	ast
Years	s	2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	553	553	553	0	0	0	553	553	553
Non-Labor	Base YR Rec	18	18	18	0	0	0	18	18	18
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Tota	ıl	572	572	572	0	0	0	572	572	572
FTE	Base YR Rec	4.4	4.4	4.4	0.0	0.0	0.0	4.4	4.4	4.4

<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	NSE	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2447.000 - SCG SOFTWARE DEV - DATABASE

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
corded (Nominal \$)*					
Labor	0	782	885	809	475
Non-Labor	0	70	3	6	18
NSE	0	0	0	0	0
Total	0	852	888	815	493
FTE	0.0	6.4	7.2	5.4	3.7
ljustments (Nominal \$) *	*				
Labor	738	0	0	0	0
Non-Labor	30	0	0	0	0
NSE	0	0	0	0	0
Total	768	0	0	0	0
FTE	6.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Noming	nal \$)				
Labor	738	782	885	809	475
Non-Labor	30	70	3	6	18
NSE	0	0	0	0	0
Total	768	852	888	815	493
FTE	6.0	6.4	7.2	5.4	3.7
acation & Sick (Nominal	\$)				
Labor	118	130	144	131	78
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	118	130	144	131	78
FTE	1.0	1.1	1.2	0.9	0.6
calation to 2016\$					
Labor	51	37	23	12	0
Non-Labor	2	3	0	0	0
NSE	0	0	0	0	0
Total	53	39	23	12	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2016\$)				
Labor	907	949	1,053	951	553
Non-Labor	32	73	3	6	18
NSE	0	0	0	0	0
Total	939	1,021	1,055	958	572
FTE	7.0	7.5	8.4	6.3	4.3

* 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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2447.000 - SCG SOFTWARE DEV - DATABASE

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs											
	Years	2012	2013	2014	2015	2016					
Labor		738	0	0	0	0					
Non-Labor		30	0	0	0	0					
NSE		0	0	0	0	0					
	Total –	768	0	0	0	0					
FTE		6.0	0.0	0.0	0.0	0.0					

Detail of Adjustments to Recorded:

<u>Year Ad</u>	j Group	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type	RefID
2012 O	other	738	30	0	6.0	CCTR Transf From 2100-3091.000	SOMAHONY20161104164059697
Explanation:	IT Emplo	yee Trans	fer from	SDGE	to SC	G as of 2013.	
2012 Total		738	30	0	6.0		
2013 Total		0	0	0	0.0		
2014 Total		0	0	0	0.0		
2015 Total		0	0	0	0.0		
2016 Total		0	0	0	0.0		

Beginning of Workpaper 2200-2451.000 - SCG APPS MAJ MRK APP - SCG

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub	1. Applications
Cost Center:	2200-2451.000 - SCG APPS MAJ MRK APP - SCG

Activity Description:

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

N/A

Summary of Results:

	In 2016\$ (000) Incurred Costs												
		Adju	isted-Recor	Ad	Adjusted-Forecast								
Years	2012	2013	2014	2015	2016	2017	2018	2019					
Labor	1,710	1,200	882	874	889	889	889	889					
Non-Labor	834	217	486	697	560	560	560	560					
NSE	0	0	0	0	0	0	0	0					
Total	2,543	1,416	1,368	1,571	1,449	1,449	1,449	1,449					
FTE	15.5	11.0	7.7	7.8	7.7	7.7	7.7	7.7					

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2451.000 - SCG APPS MAJ MRK APP - SCG

Cost Center Allocations (Incurred Costs):

		2016 Adju	sted-Reco	orded		2017 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	889	560	0	1,449	7.7	889	560	0	1,449	7.7
Total Incurred	889	560	0	1,449	7.7	889	560	0	1,449	7.7
% Allocation										
Retained	99.21%	99.21%				99.21%	99.21%			
SEU	0.79%	0.79%				0.79%	0.79%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

		2018 Adju	sted-Fore	cast		2019 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	889	560	0	1,449	7.7	889	560	0	1,449	7.7
Total Incurred	889	560	0	1,449	7.7	889	560	0	1,449	7.7
% Allocation										
Retained	99.21%	99.21%				99.21%	99.21%			
SEU	0.79%	0.79%				0.79%	0.79%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2451.000 - SCG APPS MAJ MRK APP - SCG

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

The allocations are calculated by application systems (MCS ENVOY, SCBS, CCS, and CAT) supported by this cost center and based on the number of 2016 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. SCBS, CCS, and CAT are used by SCG employees for SCG customers. Envoy and MCS are used primarily by SCG, but can be accessed by SDG&E.

Cost Center Allocation Percentage for 2017

The allocations are calculated by application systems (MCS ENVOY, SCBS, CCS, and CAT) supported by this cost center and based on the number of 2017 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. SCBS, CCS, and CAT are used by SCG employees for SCG customers. Envoy and MCS are used primarily by SCG, but can be accessed by SDG&E.

Cost Center Allocation Percentage for 2018

The allocations are calculated by application systems (MCS ENVOY, SCBS, CCS, and CAT) supported by this cost center and based on the number of 2017 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. SCBS, CCS, and CAT are used by SCG employees for SCG customers. Envoy and MCS are used primarily by SCG, but can be accessed by SDG&E.

Cost Center Allocation Percentage for 2019

The allocations are calculated by application systems (MCS ENVOY, SCBS, CCS, and CAT) supported by this cost center and based on the number of 2017 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. SCBS, CCS, and CAT are used by SCG employees for SCG customers. Envoy and MCS are used primarily by SCG, but can be accessed by SDG&E.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2451.000 - SCG APPS MAJ MRK APP - SCG

Summary of Adjustments to Forecast:

			In 201	6 \$(000) lı	ncurred Co	sts				
Forecas	t Method	Bas	se Foreca	st	Forec	ast Adjust	ments	Adjus	ted-Forec	ast
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	889	889	889	0	0	0	889	889	889
Non-Labor	Base YR Rec	560	560	560	0	0	0	560	560	560
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Tota	ıl	1,449	1,449	1,449	0	0	0	1,449	1,449	1,449
FTE	Base YR Rec	7.7	7.7	7.7	0.0	0.0	0.0	7.7	7.7	7.7

Year Adj Group Labor NLbr NSE Total FTE Adj Type RefID	Year	Adj Group	<u>Labor</u>	<u>NLbr</u>	NSE	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
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Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2451.000 - SCG APPS MAJ MRK APP - SCG

Determination of Adjusted-Recorded (Incurred Costs):

	a-Recorded (incurred Co 2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
ecorded (Nominal \$)*					
Labor	0	991	742	743	764
Non-Labor	0	181	475	688	560
NSE	0	0	0	0	0
Total	0	1,173	1,217	1,431	1,323
FTE	0.0	9.3	6.6	6.7	6.6
djustments (Nominal \$) *	*				
Labor	1,409	-2	0	0	0
Non-Labor	787	27	0	0	0
NSE	0	0	0	0	0
Total	2,195	25	0	0	0
FTE	13.3	0.1	0.0	0.0	0.0
ecorded-Adjusted (Nomir	nal \$)				
Labor	1,409	989	742	743	764
Non-Labor	787	208	475	688	560
NSE	0	0	0	0	0
Total	2,195	1,197	1,217	1,431	1,323
FTE	13.3	9.4	6.6	6.7	6.6
acation & Sick (Nominal S	\$)				
Labor	204	164	121	120	126
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	204	164	121	120	126
FTE	2.1	1.6	1.1	1.1	1.1
scalation to 2016\$					
Labor	97	46	19	11	0
Non-Labor	47	8	11	9	0
NSE	0	0	0	0	0
Total	144	55	30	19	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2016\$)				
Labor	1,710	1,200	882	874	889
Non-Labor	834	217	486	697	560
NSE	0	0	0	0	0
Total	2,543	1,416	1,368	1,571	1,449
FTE	15.4	11.0	7.7	7.8	7.7

* 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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2451.000 - SCG APPS MAJ MRK APP - SCG

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs												
	Years 2012 2013 2014 2015 2016											
Labor		1,409	-2	0	0	0						
Non-Labor		787	27	0	0	0						
NSE		0	0	0	0	0						
	Total	2,195	25	0	0	0						
FTE		13.3	0.1	0.0	0.0	0.0						

Detail of Adjustments to Recorded:

Year	<u>Adj Grou</u>	<u>p Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	RefID
2012	Other	8	0	0	0.0	CCTR Transf From 2100-3080.000	SOMAHONY20170308001203470
Explanat	tion: Maj	or Markets & (Customer	Self-Se	ervice	costs transferred to 2200-2451.	
2012	Other	57	77	0	0.5	CCTR Transf From 2100-3080.000	SOMAHONY20170308001244870
Explanat	tion: Maj	or Markets & (Customer	Self-Se	ervice	costs transferred to 2200-2451.	
2012	Other	0	57	0	0.0	CCTR Transf From 2100-3846.000	SOMAHONY20170308114343237
Explanat	tion: SCO	G Apps Major	Market A	pp cost	s trans	sferred to 2200-2451.	
2012	Other	914	226	0	8.9	CCTR Transf From 2100-3846.000	SOMAHONY20170308114422223
Explanat	tion: SCO	G Apps Major	Market A	pp cost	s trans	sferred to 2200-2451.	
2012	Other	0	0	0	0.0	CCTR Transf From 2100-3080.000	SOMAHONY20170308001308533
Explanat	tion: Maj	or Markets & (Customer	Self-Se	ervice	costs transferred to 2200-2451.	
2012	Other	430	426	0	3.9	CCTR Transf From 2100-3080.000	SOMAHONY20170308001357317
Explanat	tion: Maj	or Markets & (Customer	Self-Se	ervice	costs transferred to 2200-2451.	
2012 Tot	tal	1,409	787	0	13.3		
2013	Other	-4	11	0	0.0	CCTR Transf From 2100-3846.000	SOMAHONY20170308114511720
Explanat	tion: SCO	G Apps Major	Market A	pp cost	s trans	sferred to 2200-2451.	
2013	Other	-1	0	0	0.0	CCTR Transf From 2100-3080.000	SOMAHONY20170308001448393
Explanat	tion: Maj	or Markets & (Customer	Self-Se	ervice	costs transferred to 2200-2451.	
2013	Other	-5	14	0	0.0	CCTR Transf From 2100-3080.000	SOMAHONY20170308001521090
Explanat	tion: Maj	or Markets & (Customer	Self-Se	ervice	costs transferred to 2200-2451.	

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2451.000 - SCG APPS MAJ MRK APP - SCG

<u>Year</u>	<u>Adj Group</u>	Labor	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
2013	Other	7	2	0	0.1 C	CTR Transf From 2100-3080.000	SOMAHONY20170308001601237
Explana	tion: Major M	larkets & Cu	stomer	Self-Ser	vice co	osts transferred to 2200-2451.	
2013 Tot	tal	-2	27	0	0.1		
2014 Tot	tal	0	0	0	0.0		
2015 Tot	tal	0	0	0	0.0		
2016 Tot	tal	0	0	0	0.0		

Beginning of Workpaper 2200-2470.000 - SCG IT COMPLIANCE MANAGEMENT

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub	1. Applications
Cost Center:	2200-2470.000 - SCG IT COMPLIANCE MANAGEMENT

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

N/A

Summary of Results:

		In 2016\$ (000) Incurred Costs													
		Adju	isted-Recor	Adjusted-Forecast											
Years	2012	2013	2014	2015	2016	2017	2018	2019							
Labor	618	593	299	367	554	555	555	555							
Non-Labor	35	95	142	15	143	142	142	142							
NSE	0	0	0	0	0	0	0	0							
Total	653	688	441	382	697	697	697	697							
FTE	4.7	5.0	2.7	3.2	4.8	4.8	4.8	4.8							

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2470.000 - SCG IT COMPLIANCE MANAGEMENT

Cost Center Allocations (Incurred Costs):

		2016 Adju	sted-Reco	rded		2017 Adju	usted-Fore	cast		
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	49	0	0	49	0.4	49	0	0	49	0.4
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	506	142	0	648	4.4	506	142	0	648	4.4
Total Incurred	555	142	0	697	4.8	555	142	0	697	4.8
% Allocation										
Retained	61.91%	61.91%				59.94%	59.94%			
SEU	34.50%	34.50%				36.42%	36.42%			
CORP	3.59%	3.59%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

		2018 Adju	2019 Adjusted-Forecast							
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	49	0	0	49	0.4	49	0	0	49	0.4
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	506	142	0	648	4.4	506	142	0	648	4.4
Total Incurred	555	142	0	697	4.8	555	142	0	697	4.8
% Allocation										
Retained	59.94%	59.94%				59.94%	59.94%			
SEU	36.42%	36.42%				36.42%	36.42%			
CORP	3.64%	3.64%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2017

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2018

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2019

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2470.000 - SCG IT COMPLIANCE MANAGEMENT

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs													
Forecast	t Method	Bas	se Foreca	st	t Forecast Adjustments				Adjusted-Forecast					
Years	8	2017 2018 2019		2017	2018	2019	2017	2018	2019					
Labor	Base YR Rec	554	554	554	0	0	0	554	554	554				
Non-Labor	Base YR Rec	143	143	143	0	0	0	143	143	143				
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0				
Total 697 697 697		697	0	0	0	697	697	697						
FTE	Base YR Rec	4.8	4.8	4.8	0.0	0.0	0.0	4.8	4.8	4.8				

YearAdj GroupLaborNLbrNSETotalFTEAdj TypeRefID	
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Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2470.000 - SCG IT COMPLIANCE MANAGEMENT

Determination of Adjusted-Recorded (Incurred Costs):

·····	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	0	489	251	312	492
Non-Labor	0	91	139	15	143
NSE	0	0	0	0	0
Total	0	580	390	327	635
FTE	0.0	4.3	2.3	2.8	4.3
djustments (Nominal \$) **					
Labor	503	0	0	0	-16
Non-Labor	33	0	0	0	0
NSE	0	0	0	0	0
Total	536	0	0	0	-16
FTE	4.0	0.0	0.0	0.0	-0.2
Recorded-Adjusted (Nomin	al \$)				
Labor	503	489	251	312	476
Non-Labor	33	91	139	15	143
NSE	0	0	0	0	0
Total	536	580	390	327	619
FTE	4.0	4.3	2.3	2.8	4.1
acation & Sick (Nominal \$	5)				
Labor	80	81	41	51	78
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	80	81	41	51	78
FTE	0.7	0.7	0.4	0.5	0.7
scalation to 2016\$					
Labor	35	23	7	5	0
Non-Labor	2	4	3	0	0
NSE	0	0	0	0	0
Total	37	27	10	5	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Consta	ant 2016\$)				
Labor	618	593	299	367	554
Non-Labor	35	95	142	15	143
NSE	0	0	0	0	0
Total	653	688	441	382	697
FTE	4.7	5.0	2.7	3.3	4.8

* 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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2470.000 - SCG IT COMPLIANCE MANAGEMENT

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs								
	Years 2012 2013 2014 2015 2016							
Labor	-	503	0	0	0	-16		
Non-Labor		33	0	0	0	0		
NSE		0	0	0	0	0		
	Total	536	0	0	0	-16		
FTE		4.0	0.0	0.0	0.0	-0.2		

Detail of Adjustments to Recorded:

Year	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type	RefID
2012	Other	341	24	0	3.0	CCTR Transf From 2100-3089.000	SOMAHONY20161104163650983
Explanat	ion: IT Empl	oyee Trans	fer from	SDGE t	o SC	G as of 2013.	
2012	Other	112	6	0	1.0	CCTR Transf From 2100-3699.000	SOMAHONY20161105182218297
Explanation: IT Employee Transfer from SDGE to SCG as of 2013.							
2012	Other	50	3	0	0.0	CCTR Transf From 2100-3684.000	SOMAHONY20161105180621890
Explanat	ion: IT Empl	oyee Trans	fer from	SDGE t	o SC	G as of 2013.	
2012 Tota	al	503	33	0	4.0		
2013 Tota	al	0	0	0	0.0		
2014 Tota	al	0	0	0	0.0		
2015 Tota	al	0	0	0	0.0		
2016	Aliso	-16	0	0	-0.2	1-Sided Adj	SOMAHONY20170223174406197
Explanat	ion: 2016 Al	iso Canyon	- Remov	ving Pro	ducti	ve Labor	
2016 Tota	al	-16	0	0	-0.2		

Beginning of Workpaper 2200-2503.000 - ARCHITECTURE AND INTEGRATION - SCG

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub	1. Applications
Cost Center:	2200-2503.000 - ARCHITECTURE AND INTEGRATION - SCG

Activity Description:

This cost center is responsible for configuring secure file transfers between internal applications and with external business partners, including performance monitoring, tuning and problem resolution.

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 2016\$ (000) Incurred Costs										
		Adju	isted-Recor	ded		Ad	justed-Fore	cast			
Years	2012	2013	2014	2015	2016	2017	2018	2019			
Labor	0	0	164	340	314	314	314	314			
Non-Labor	0	0	147	244	214	214	214	214			
NSE	0	0	0	0	0	0	0	0			
Total	0	0	312	584	528	528	528	528			
FTE	0.0	0.0	1.5	2.2	2.9	2.9	2.9	2.9			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2503.000 - ARCHITECTURE AND INTEGRATION - SCG

Cost Center Allocations (Incurred Costs):

		2016 Adju	sted-Reco	orded	2017 Adjusted-Forecast					
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	314	214	0	528	2.9	314	214	0	528	2.9
Total Incurred	314	214	0	528	2.9	314	214	0	528	2.9
% Allocation										
Retained	35.63%	35.63%				35.32%	35.32%			
SEU	53.97%	53.97%				54.18%	54.18%			
CORP	10.40%	10.40%				10.50%	10.50%			
Unreg	0.00%	0.00%				0.00%	0.00%			

		2018 Adju	sted-Fore	cast	2019 Adjusted-Forecast					
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	314	214	0	528	2.9	314	214	0	528	2.9
Total Incurred	314	214	0	528	2.9	314	214	0	528	2.9
% Allocation										
Retained	35.32%	35.32%				35.32%	35.32%			
SEU	54.18%	54.18%				54.18%	54.18%			
CORP	10.50%	10.50%				10.50%	10.50%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

Allocations for 2017 are based on the total number of interfaces implemented on the EDIX/WebMethods system for SDGE, SCG and Parent.

Cost Center Allocation Percentage for 2017

Allocations for 2017 are based on the total number of interfaces implemented on the EDIX/WebMethods system for SDGE, SCG and Parent.

Cost Center Allocation Percentage for 2018

Allocations for 2017 are based on the total number of interfaces implemented on the EDIX/WebMethods system for SDGE, SCG and Parent.

Cost Center Allocation Percentage for 2019

Allocations for 2017 are based on the total number of interfaces implemented on the EDIX/WebMethods system for SDGE, SCG and Parent.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2503.000 - ARCHITECTURE AND INTEGRATION - SCG

Summary of Adjustments to Forecast:

			In 201	6 \$(000) li	ncurred Co	sts				
Forecast Method Base Forecast			Forec	ast Adjust	ments	Adjusted-Forecast				
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	314	314	314	0	0	0	314	314	314
Non-Labor	Base YR Rec	214	214	214	0	0	0	214	214	214
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Tota	Total		528	528	0	0	0	528	528	528
FTE	Base YR Rec	2.9	2.9	2.9	0.0	0.0	0.0	2.9	2.9	2.9

<u>Year Adj Group Labor NLbr NSE Total FTE Adj Type RefID</u>	<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	NSE	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
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Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2503.000 - ARCHITECTURE AND INTEGRATION - SCG

Determination of Adjusted-Recorded (Incurred Costs):

elemination of Aujusteu	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	138	289	270
Non-Labor	0	0	144	241	214
NSE	0	0	0	0	0
Total	0	0	282	530	483
FTE	0.0	0.0	1.3	1.9	2.5
djustments (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 (Nomin	al \$)				
Labor	0	0	138	289	270
Non-Labor	0	0	144	241	214
NSE	0	0	0	0	0
Total	0	0	282	530	483
FTE	0.0	0.0	1.3	1.9	2.5
acation & Sick (Nominal \$	5)				
Labor	0	0	23	47	44
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	23	47	44
FTE	0.0	0.0	0.2	0.3	0.4
scalation to 2016\$					
Labor	0	0	4	4	0
Non-Labor	0	0	3	3	0
NSE	0	0	0	0	0
Total	0	0	7	7	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Consta	ant 2016\$)				
Labor	0	0	164	340	314
Non-Labor	0	0	147	244	214
NSE	0	0	0	0	0
Total	0	0	312	584	528
FTE	0.0	0.0	1.5	2.2	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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2503.000 - ARCHITECTURE AND INTEGRATION - SCG

Summary of Adjustments to Recorded:

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

Year	Adj Group	<u>Labor</u>	<u>NLbr</u>	NSE FTE	Adj Type	RefID

Beginning of Workpaper 2200-2596.000 - SCG IT QUALITY ASSURANCE

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub	1. Applications
Cost Center:	2200-2596.000 - SCG IT QUALITY ASSURANCE

Activity Description:

This cost center represents IT quality testing services and related expenses provided by the IT Quality Assurance team, which supports both SDG&E and 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 2016\$ (000) Incurred Costs											
		Adju	isted-Recor	Adjusted-Forecast									
Years	2012	2013	2014	2015	2016	2017	2018	2019					
Labor	0	0	0	0	40	40	40	40					
Non-Labor	0	0	0	0	1	1	1	1					
NSE	0	0	0	0	0	0	0	0					
Total	0	0	0	0	41	41	41	41					
FTE	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.3					

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2596.000 - SCG IT QUALITY ASSURANCE

Cost Center Allocations (Incurred Costs):

		2016 Adju	sted-Reco	rded		2017 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	4	0	0	4	0.0	4	0	0	4	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	36	1	0	37	0.3	36	1	0	37	0.3
Total Incurred	40	1	0	41	0.3	40	1	0	41	0.3
% 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%			

		2018 Adju	cast	2019 Adjusted-Forecast						
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	4	0	0	4	0.0	4	0	0	4	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	36	1	0	37	0.3	36	1	0	37	0.3
Total Incurred	40	1	0	41	0.3	40	1	0	41	0.3
% 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 2016

Cost center is now 100% SCG

Cost Center Allocation Percentage for 2017

Cost center is now 100% SCG

Cost Center Allocation Percentage for 2018

Cost center is now 100% SCG

Cost Center Allocation Percentage for 2019

Cost center is now 100% SCG

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2596.000 - SCG IT QUALITY ASSURANCE

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs										
Forecast	t Method	Bas	se Foreca	st	Forec	Forecast Adjustments			Adjusted-Forecast		
Years	S	2017	2018	2019	2017	2018	2019	2017	2018	2019	
Labor	Base YR Rec	40	40	40	0	0	0	40	40	40	
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	
Tota	I	41	41	41	0	0	0	41	41	41	
FTE	Base YR Rec	0.3	0.3	0.3	0.0	0.0	0.0	0.3	0.3	0.3	

Year Adj Group Labor NLbr NSE Total FTE Adj Type RefID	<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	RefID
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Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2596.000 - SCG IT QUALITY ASSURANCE

Determination of Adjusted-Recorded (Incurred Costs):

Determination of Aujusted-	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	0	35
Non-Labor	0	0	0	0	1
NSE	0	0	0	0	0
Total	0	0	0	0	35
FTE	0.0	0.0	0.0	0.0	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 (Nomina	al \$)				
Labor	0	0	0	0	35
Non-Labor	0	0	0	0	1
NSE	0	0	0	0	0
Total	0	0	0	0	35
FTE	0.0	0.0	0.0	0.0	0.3
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	6
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	6
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2016\$					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Consta	nt 2016\$)				
Labor	0	0	0	0	40
Non-Labor	0	0	0	0	1
NSE	0	0	0	0	0
Total	0	0	0	0	41
FTE	0.0	0.0	0.0	0.0	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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	A. Applications
Category-Sub:	1. Applications
Cost Center:	2200-2596.000 - SCG IT QUALITY ASSURANCE

Summary of Adjustments to Recorded:

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

Year	Adj Group	<u>Labor</u>	<u>NLbr</u>	NSE FTE	Adj Type	RefID

Area:INFORMATION TECHNOLOGYWitness:Christopher R. OlmstedCategory:B. InfrastructureCost Center:VARIOUS

Summary for Category: B. Infrastructure

Г	In 2016\$ (000) Incurred Costs						
F	Adjusted-Recorded						
	2016	2017	2018	2019			
Labor	4,254	4,254	4,254	4,254			
Non-Labor	897	1,076	1,076	1,076			
NSE	0	0	0	0			
Total	5,151	5,330	5,330	5,330			
FTE	37.7	37.7	37.7	37.7			
Cost Centers belonging	to this Category:						
2200-2047.000 IT ACC	•••						
Labor	118	118	118	118			
Non-Labor	1	1	1	1			
NSE	0	0	0	0			
Total	119	119	119	119			
FTE	1.0	1.0	1.0	1.0			
2200-2372.000 DIRECT	OR IT SOCALGAS APPLICAT		1.0	1.0			
Labor	247	247	247	247			
Non-Labor	3	3	3	3			
NSE	0	0	0	0			
Total	250	250	250	250			
FTE	1.7	1.7	1.7	1.7			
2200-2406.000 DIRECT	OR - COMPUTING INFRASTR						
Labor	231	231	231	231			
Non-Labor	152	152	152	152			
NSE	0	0	0	0			
Total	383	383	383	383			
FTE	1.1	1.1	1.1	1.1			
2200-2453.000 CLNT T	ECH & DEPOT SVC-SCG						
Labor	322	322	322	322			
Non-Labor	6	6	6	6			
NSE	0	0	0	0			
Total	328	328	328	328			
FTE	3.4	3.4	3.4	3.4			
2200-2455.000 IT BUSI	NESS INSIGHT - SCG						
Labor	346	346	346	346			
Non-Labor	3	3	3	3			
NSE	0	0	0	0			
Total	349	349	349	349			
FTE	4.0	4.0	4.0	4.0			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Cost Center:	VARIOUS

Γ	In 2016\$ (000) Incurred Costs				
	Adjusted-Recorded		Adjusted-Forecast		
	2016	2017	2018	2019	
2200-2458.000 SCALA	BLE PLATFORM SERVS - SC	G			
Labor	253	253	253	253	
Non-Labor	224	224	224	224	
NSE	0	0	0	0	
Total	477	477	477	477	
FTE	2.4	2.4	2.4	2.4	
2200-2464.000 CI CON	IPUTE SUPPORT SCG				
Labor	1,022	1,022	1,022	1,022	
Non-Labor	17	17	17	17	
NSE	0	0	0	0	
Total	1,039	1,039	1,039	1,039	
FTE	9.3	9.3	9.3	9.3	
2200-2466.000 CI CON	IPUTE PROVISIONING SCG				
Labor	497	497	497	497	
Non-Labor	141	141	141	141	
NSE	0	0	0	0	
Total	638	638	638	638	
FTE	4.7	4.7	4.7	4.7	
2200-2467.000 CI STA					
Labor	497	497	497	497	
Non-Labor	14	14	14	14	
NSE	0	0	0	0	
Total	511	511	511	511	
FTE	4.7	4.7	4.7	4.7	
2200-2490.000 ENTER	PRISE ARCHITECTURE				
Labor	260	260	260	260	
Non-Labor	4	4	4	4	
NSE	0	0	0	0	
Total	264	264	264	264	
FTE	2.2	2.2	2.2	2.2	
2200-2493.000 IT POR	TFOLIO MANAGEMENT				
Labor	298	298	298	298	
Non-Labor	270	305	305	305	
NSE	0	0	0	0	
Total	568	603	603	603	
FTE	1.8	1.8	1.8	1.8	
2200-2494.000 IT TEL					
Labor	74	74	74	74	
Non-Labor	57	201	201	201	
NSE	0	0	0	0	
Total	131	275	275	275	

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Cost Center:	VARIOUS

	In 2016\$ (000) Incurred Costs							
	Adjusted-Recorded	Adjusted-Forecast						
	2016	2017	2018	2019				
2200-2565.000 IT TEL	ECOM PMO							
Labor	89	89	89	89				
Non-Labor	5	5	5	5				
NSE	0	0	0	0				
Total	94	94	94	94				
FTE	0.6	0.6	0.6	0.6				

Beginning of Workpaper 2200-2047.000 - IT ACCOUNT MANAGEMENT

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub	1. Infrastructure
Cost Center:	2200-2047.000 - IT ACCOUNT MANAGEMENT

Activity Description:

This cost center manages Client Technology Support and Solutions, SempraHelp & IT Service Management, and IT Communications system-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 2016\$ (000) Incurred Costs										
		Adju	isted-Recor	ded		Ad	cast				
Years	2012	2013	2014	2015	2016	2017	2018	2019			
Labor	76	48	180	203	118	118	118	118			
Non-Labor	59	0	27	1	1	1	1	1			
NSE	0	0	0	0	0	0	0	0			
Total	135	49	207	203	119	119	119	119			
FTE	0.7	0.5	1.5	1.7	1.1	1.0	1.0	1.0			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2047.000 - IT ACCOUNT MANAGEMENT

Cost Center Allocations (Incurred Costs):

		2016 Adju	sted-Reco	orded		2017 Adju	usted-Fore	cast		
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	1	0	1	0.0	0	1	0	1	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	118	0	0	118	1.0	118	0	0	118	1.0
Total Incurred	118	1	0	119	1.0	118	1	0	119	1.0
% Allocation										
Retained	61.91%	61.91%				59.94%	59.94%			
SEU	34.50%	34.50%				36.42%	36.42%			
CORP	3.59%	3.59%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

	2018 Adjusted-Forecast						2019 Adjusted-Forecast			
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	1	0	1	0.0	0	1	0	1	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	118	0	0	118	1.0	118	0	0	118	1.0
Total Incurred	118	1	0	119	1.0	118	1	0	119	1.0
% Allocation										
Retained	59.94%	59.94%				59.94%	59.94%			
SEU	36.42%	36.42%				36.42%	36.42%			
CORP	3.64%	3.64%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2017

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2018

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2019

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2047.000 - IT ACCOUNT MANAGEMENT

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs									
Forecast Method Base Forecast				Forec	Forecast Adjustments Adjusted-Forecast				ast	
Years	5	2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	118	118	118	0	0	0	118	118	118
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
Tota	I	119	119	119	0	0	0	119	119	119
FTE	Base YR Rec	1.0	1.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0

Year	Adj Group	<u>Labor</u>	<u>NLbr</u>	NSE	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	RefID
				NUL				

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2047.000 - IT ACCOUNT MANAGEMENT

Determination of Adjusted-Recorded (Incurred Costs):

Determination of Adjusted-	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*			· · ·		
Labor	62	40	151	172	102
Non-Labor	55	0	26	1	1
NSE	0	0	0	0	0
Total	118	40	177	173	102
FTE	0.6	0.4	1.3	1.5	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 (Nomina	il \$)				
Labor	62	40	151	172	102
Non-Labor	55	0	26	1	1
NSE	0	0	0	0	0
Total	118	40	177	173	102
FTE	0.6	0.4	1.3	1.5	0.9
/acation & Sick (Nominal \$)					
Labor	10	7	25	28	17
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	10	7	25	28	17
FTE	0.1	0.1	0.2	0.2	0.2
Escalation to 2016\$					
Labor	4	2	4	3	0
Non-Labor	3	0	1	0	0
NSE	0	0	0	0	0
Total	8	2	5	3	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constar	nt 2016\$)				
Labor	76	48	180	203	118
Non-Labor	59	0	27	1	1
NSE	0	0	0	0	0
Total	135	49	207	203	119
FTE	0.7	0.5	1.5	1.7	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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2047.000 - IT ACCOUNT MANAGEMENT

Summary of Adjustments to Recorded:

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

Year	Adj Group	<u>Labor</u>	<u>NLbr</u>	NSE FTE	Adj Type	RefID

Beginning of Workpaper 2200-2372.000 - DIRECTOR IT SOCALGAS APPLICATIONS

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub	1. Infrastructure
Cost Center:	2200-2372.000 - DIRECTOR IT SOCALGAS APPLICATIONS

Activity Description:

This cost center supports the management and administration of various system-wide IT contracts and managed 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 2016\$ (00	0) Incurred (Costs		
		Adju	isted-Recor	Adjusted-Forecast				
Years	2012	2013	2014	2015	2016	2017	2018	2019
Labor	200	199	-2	183	247	247	247	247
Non-Labor	37	25	12	26	3	3	3	3
NSE	0	0	0	0	0	0	0	0
Total	237	224	11	209	251	250	250	250
FTE	1.2	1.1	0.0	1.3	1.7	1.7	1.7	1.7

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2372.000 - DIRECTOR IT SOCALGAS APPLICATIONS

Cost Center Allocations (Incurred Costs):

		2016 Adju	sted-Reco	orded	2017 Adjusted-Forecast					
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	11	1	0	12	0.1	11	1	0	12	0.1
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	236	2	0	238	1.6	236	2	0	238	1.6
Total Incurred	247	3	0	250	1.7	247	3	0	250	1.7
% Allocation										
Retained	50.62%	50.62%				40.00%	40.00%			
SEU	49.38%	49.38%				60.00%	60.00%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

		2018 Adju	cast	2019 Adjusted-Forecast						
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	11	1	0	12	0.1	11	1	0	12	0.1
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	236	2	0	238	1.6	236	2	0	238	1.6
Total Incurred	247	3	0	250	1.7	247	3	0	250	1.7
% Allocation										
Retained	40.00%	40.00%				40.00%	40.00%			
SEU	60.00%	60.00%				60.00%	60.00%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2372.000 - DIRECTOR IT SOCALGAS APPLICATIONS

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

Calculations are based on the number of CPU used across each utility. The use of CPU utilization study is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2017

Calculations are based on the number of CPU used across each utility. The use of CPU utilization study is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2018

Calculations are based on the number of CPU used across each utility. The use of CPU utilization study is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2019

Calculations are based on the number of CPU used across each utility. The use of CPU utilization study is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2372.000 - DIRECTOR IT SOCALGAS APPLICATIONS

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs									
Forecas	t Method	Bas	se Foreca	st	Forec	ast Adjust	ments	Adjusted-Forecast		
Years	s	2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	247	247	247	0	0	0	247	247	247
Non-Labor	Base YR Rec	3	3	3	0	0	0	3	3	3
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Tota	ıl	251	251	251	0	0	0	251	251	251
FTE	Base YR Rec	1.7	1.7	1.7	0.0	0.0	0.0	1.7	1.7	1.7

<u>Year Adj Group Labor NLbr NSE Total FTE Adj Type ReflD</u>	Year	Adj Group	<u>Labor</u>	<u>NLbr</u>	NSE	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	RefID
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Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2372.000 - DIRECTOR IT SOCALGAS APPLICATIONS

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
ecorded (Nominal \$)*					
Labor	163	164	-1	156	212
Non-Labor	35	24	12	25	3
NSE	0	0	0	0	0
Total	198	188	11	181	216
FTE	1.0	0.9	0.0	1.1	1.4
djustments (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
ecorded-Adjusted (Nomin	nal \$)				
Labor	163	164	-1	156	212
Non-Labor	35	24	12	25	3
NSE	0	0	0	0	0
Total	198	188	11	181	216
FTE	1.0	0.9	0.0	1.1	1.4
acation & Sick (Nominal	\$)				
Labor	26	27	0	25	35
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	26	27	0	25	35
FTE	0.2	0.2	0.0	0.2	0.2
scalation to 2016\$					
Labor	11	8	0	2	0
Non-Labor	2	1	0	0	0
NSE	0	0	0	0	0
Total	13	9	0	3	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2016\$)				
Labor	200	199	-2	183	247
Non-Labor	37	25	12	26	3
NSE	0	0	0	0	0
Total	237	224	11	209	251
FTE	1.2	1.1	0.0	1.3	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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2372.000 - DIRECTOR IT SOCALGAS APPLICATIONS

Summary of Adjustments to Recorded:

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

Year	Adj Group	<u>Labor</u>	<u>NLbr</u>	NSE FTE	Adj_Type	RefID

Beginning of Workpaper 2200-2406.000 - DIRECTOR - COMPUTING INFRASTRUCTURE

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub	1. Infrastructure
Cost Center:	2200-2406.000 - DIRECTOR - COMPUTING INFRASTRUCTURE

Activity Description:

This cost center supports all of ITOTI, 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 - Zero-Based

N/A

Summary of Results:

Γ	In 2016\$ (000) Incurred Costs									
		Adju	isted-Recor	ded		Ad	Adjusted-Forecast			
Years	2012	2013	2014	2015	2016	2017	2018	2019		
Labor	209	259	263	223	231	231	231	231		
Non-Labor	7	31	53	133	152	152	152	152		
NSE	0	0	0	0	0	0	0	0		
Total	217	291	317	356	383	383	383	383		
FTE	2.3	2.2	2.2	1.3	1.2	1.1	1.1	1.1		

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2406.000 - DIRECTOR - COMPUTING INFRASTRUCTURE

Cost Center Allocations (Incurred Costs):

Laborectly Retained	or	Non-Labor							cast	
Directly Retained		Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
	6	1	0	7	0.0	6	1	0	7	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	225	151	0	376	1.1	225	151	0	376	1.1
Total Incurred	231	152	0	383	1.1	231	152	0	383	1.1
% Allocation										
Retained 50.3	35%	50.35%				49.07%	49.07%			
SEU 48.5	58%	48.58%				49.86%	49.86%			
CORP 1.0)7%	1.07%				1.07%	1.07%			
Unreg 0.0	0%	0.00%				0.00%	0.00%			

	2018 Adjusted-Forecast						2019 Adju	sted-Fore	cast	
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	6	1	0	7	0.0	6	1	0	7	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	225	151	0	376	1.1	225	151	0	376	1.1
Total Incurred	231	152	0	383	1.1	231	152	0	383	1.1
% Allocation										
Retained	49.07%	49.07%				49.07%	49.07%			
SEU	49.86%	49.86%				49.86%	49.86%			
CORP	1.07%	1.07%				1.07%	1.07%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2406.000 - DIRECTOR - COMPUTING INFRASTRUCTURE

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

Calculations are based on department weighted average. The use of department 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 2017

Calculations are based on department weighted average. The use of department 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 2018

Calculations are based on department weighted average. The use of department 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 2019

Calculations are based on department weighted average. The use of department weighted average is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2406.000 - DIRECTOR - COMPUTING INFRASTRUCTURE

Summary of Adjustments to Forecast:

			In 201	6 \$(000) Ir	ncurred Co	sts				
Forecas	Bas	se Foreca	st	Forec	ast Adjust	ments	Adjusted-Forecast			
Years	s	2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	231	231	231	0	0	0	231	231	231
Non-Labor	Base YR Rec	152	152	152	0	0	0	152	152	152
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
Tota	ıl	383	383	383	0	0	0	383	383	383
FTE	Base YR Rec	1.1	1.1	1.1	0.0	0.0	0.0	1.1	1.1	1.1

Year	Adj Group	<u>Labor</u>	<u>NLbr</u>	NSE	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	RefID
				NOL				

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2406.000 - DIRECTOR - COMPUTING INFRASTRUCTURE

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	0	214	222	190	198
Non-Labor	1	30	52	131	153
NSE	0	0	0	0	0
Total	1	244	274	321	351
FTE	0.0	1.9	1.9	1.1	1.0
djustments (Nominal \$) **	•				
Labor	170	0	0	0	0
Non-Labor	6	0	0	0	-1
NSE	0	0	0	0	0
Total	176	0	0	0	-1
FTE	2.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nomin	nal \$)				
Labor	170	214	222	190	198
Non-Labor	7	30	52	131	152
NSE	0	0	0	0	0
Total	177	244	274	321	350
FTE	2.0	1.9	1.9	1.1	1.0
acation & Sick (Nominal \$	5)				
Labor	27	36	36	31	33
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	27	36	36	31	33
FTE	0.3	0.3	0.3	0.2	0.2
scalation to 2016\$					
Labor	12	10	6	3	0
Non-Labor	0	1	1	2	0
NSE	0	0	0	0	0
Total	12	11	7	4	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Consta	ant 2016\$)				
Labor	209	259	263	223	231
Non-Labor	7	31	53	133	152
NSE	0	0	0	0	0
Total	217	291	317	356	383
FTE	2.3	2.2	2.2	1.3	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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2406.000 - DIRECTOR - COMPUTING INFRASTRUCTURE

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs									
	Years	2012 2013 2014 2015 2016							
Labor		170	0	0	0	0			
Non-Labor		6	0	0	0	-0.906			
NSE		0	0	0	0	0			
	Total	176	0	0	0	-0.906			
FTE		2.0	0.0	0.0	0.0	0.0			

Detail of Adjustments to Recorded:

Year Adj Group	b Labor	NLbr	NSE FT	E Adj Type	RefID
2012 Other	170	6		CCTR Transf From 2100-3095.000	SOMAHONY20161104165146790
Explanation: IT Er	nployee Trans	sfer from	SDGE to S	CG as of 2013.	
2012 Total	170	6	0 2.	D	
2013 Total	0	0	0 0.	D	
2014 Total	0	0	00.	D	
2015 Total	0	0	00.	0	
0040	0				
2016 Aliso	0	-1		0 1-Sided Adj	SOMAHONY20170223173359250
Explanation: 2016	Aliso Canyon	ı - Remo	ving Office	Supplies and Catering	
2016 Total	0	-1	0 0.	0	

Beginning of Workpaper 2200-2453.000 - CLNT TECH & DEPOT SVC-SCG

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub	1. Infrastructure
Cost Center:	2200-2453.000 - CLNT TECH & DEPOT SVC-SCG

Activity Description:

This cost center provides management and support services for system-wide Client Technology and IT 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 - Zero-Based

N/A

Summary of Results:

	In 2016\$ (000) Incurred Costs											
		Adju	isted-Recor	ded		Ad	justed-Fore	cast				
Years	2012	2013	2014	2015	2016	2017	2018	2019				
Labor	211	377	332	365	322	322	322	322				
Non-Labor	10	8	1	3	6	6	6	6				
NSE	0	0	0	0	0	0	0	0				
Total	220	385	333	368	328	328	328	328				
FTE	2.3	4.0	3.0	3.9	3.4	3.4	3.4	3.4				

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2453.000 - CLNT TECH & DEPOT SVC-SCG

Cost Center Allocations (Incurred Costs):

		2016 Adju	sted-Reco	orded	2017 Adjusted-Forecast					
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	322	6	0	328	3.4	322	6	0	328	3.4
Total Incurred	322	6	0	328	3.4	322	6	0	328	3.4
% Allocation										
Retained	61.91%	61.91%				59.94%	59.94%			
SEU	34.50%	34.50%				36.42%	36.42%			
CORP	3.59%	3.59%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

		2018 Adju	sted-Fore	cast	2019 Adjusted-Forecast					
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	322	6	0	328	3.4	322	6	0	328	3.4
Total Incurred	322	6	0	328	3.4	322	6	0	328	3.4
% Allocation										
Retained	59.94%	59.94%				59.94%	59.94%			
SEU	36.42%	36.42%				36.42%	36.42%			
CORP	3.64%	3.64%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2453.000 - CLNT TECH & DEPOT SVC-SCG

Cost Center Allocation Percentage Drivers/Methodology:

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 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.

Cost Center Allocation Percentage for 2017

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 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.

Cost Center Allocation Percentage for 2018

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 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.

Cost Center Allocation Percentage for 2019

Area:INFORMATION TECHNOLOGYWitness:Christopher R. OlmstedCategory:B. InfrastructureCategory-Sub:1. InfrastructureCost Center:2200-2453.000 - CLNT TECH & DEPOT SVC-SCG

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 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.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2453.000 - CLNT TECH & DEPOT SVC-SCG

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs									
Forecast Method Base Forecast				Forec	ast Adjust	tments	Adjus	ted-Forec	ast	
Years	Years 2017 2018 2019			2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	322	322	322	0	0	0	322	322	322
Non-Labor	Base YR Rec	6	6	6	0	0	0	6	6	6
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
Total		328	328	328	0	0	0	328	328	328
FTE	Base YR Rec	3.4	3.4	3.4	0.0	0.0	0.0	3.4	3.4	3.4

Year	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	NSE	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	RefID
1001	Auroroup	Labor		NOE	Total	<u></u>	Ad Type	Ronb

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2453.000 - CLNT TECH & DEPOT SVC-SCG

Determination of Adjusted-Recorded (Incurred Costs):

	a-Recorded (Incurred Cos 2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
ecorded (Nominal \$)*					
Labor	0	186	232	310	276
Non-Labor	0	4	1	3	6
NSE	0	0	0	0	0
Total	0	190	233	313	283
FTE	0.0	2.1	2.6	3.3	2.9
djustments (Nominal \$) *	*				
Labor	171	125	48	0	0
Non-Labor	9	4	0	0	0
NSE	0	0	0	0	0
Total	180	129	48	0	0
FTE	2.0	1.3	0.0	0.0	0.0
ecorded-Adjusted (Nomir	nal \$)				
Labor	171	311	279	310	276
Non-Labor	9	8	1	3	6
NSE	0	0	0	0	0
Total	180	319	281	313	283
FTE	2.0	3.4	2.6	3.3	2.9
acation & Sick (Nominal S	\$)				
Labor	27	52	46	50	46
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	27	52	46	50	46
FTE	0.3	0.6	0.4	0.6	0.5
scalation to 2016\$					
Labor	12	15	7	5	0
Non-Labor	1	0	0	0	0
NSE	0	0	0	0	0
Total	12	15	7	5	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2016\$)				
Labor	211	377	332	365	322
Non-Labor	10	8	1	3	6
NSE	0	0	0	0	0
Total	220	385	333	368	328
FTE	2.3	4.0	3.0	3.9	3.4

* 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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2453.000 - CLNT TECH & DEPOT SVC-SCG

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs												
	Years	Years 2012 2013 2014 2015 2016										
Labor	-	171	125	48	0	0						
Non-Labor		9	4	0	0	0						
NSE		0	0	0	0	0						
	Total	180	129	48	0	0						
FTE		2.0	1.3	0.0	0.0	0.0						

Detail of Adjustments to Recorded:

Year	<u>Adj Group</u>	Labor	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type	RefID
2012	Other	171	9	0	2.0	CCTR Transf From 2100-3097.000	SOMAHONY20161104185022000
Explana	tion: IT Emp	oloyee Trans	fer from	SDGE	to SC	G as of 2013.	
2012 Tot	tal	171	9	0	2.0		
2013	Other	125	4	0	1.3	CCTR Transf From 2200-2457.000	SHAO20170308134638300
Explanat	tion: Sempr	aHelp & IT s	ervices o	costs m	ove to	o cost center 2200-2453. Cost center	2200-2457 has been retired.
2013	Other	0	0	0	0.0	CCTR Transf From 2200-2457.000	SHAO20170308135042017
Explana	tion: Sempr	aHelp & IT s	ervices o	costs m	ove to	o cost center 2200-2453. Cost center	2200-2457 has been retired.
2013 Tot	tal	125	4	0	1.3		
2014	Other	48	0	0	0.0	CCTR Transf From 2200-2457.000	SHAO20170308135249227
Explana	tion: Sempr	aHelp & IT s	ervices o	costs m	ove to	o cost center 2200-2453. Cost center	2200-2457 has been retired.
2014 Tot	tal	48	0	0	0.0		
2015 Tot	tal	0	0	0	0.0		
2016 Tot	tal	0	0	0	0.0		

Beginning of Workpaper 2200-2455.000 - IT BUSINESS INSIGHT - SCG

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub	1. Infrastructure
Cost Center:	2200-2455.000 - IT BUSINESS INSIGHT - SCG

Activity Description:

This cost center performs contract management and administration and planning activities for the maintenance contracts associated with support for the Client Technology & Depot Services, SempraHelp, Enterprise Voice, Messaging, & IT Service 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

N/A

Summary of Results:

Γ	In 2016\$ (000) Incurred Costs												
		Adju	isted-Recor	Ad	justed-Fored	cast							
Years	2012	2013	2014	2015	2016	2017	2018	2019					
Labor	766	838	649	469	346	346	346	346					
Non-Labor	29	14	3	7	3	3	3	3					
NSE	0	0	0	0	0	0	0	0					
Total	795	852	652	476	350	349	349	349					
FTE	9.3	9.5	6.5	5.1	4.0	4.0	4.0	4.0					

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2455.000 - IT BUSINESS INSIGHT - SCG

Cost Center Allocations (Incurred Costs):

	2016 Adjusted-Recorded					2017 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	1	0	1	0.0	0	1	0	1	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	346	2	0	348	4.0	346	2	0	348	4.0
Total Incurred	346	3	0	349	4.0	346	3	0	349	4.0
% Allocation										
Retained	49.75%	49.75%				49.56%	49.56%			
SEU	40.28%	40.28%				40.29%	40.29%			
CORP	4.63%	4.63%				4.63%	4.63%			
Unreg	5.34%	5.34%				5.52%	5.52%			

	2018 Adjusted-Forecast					2019 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	1	0	1	0.0	0	1	0	1	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	346	2	0	348	4.0	346	2	0	348	4.0
Total Incurred	346	3	0	349	4.0	346	3	0	349	4.0
% Allocation										
Retained	49.56%	49.56%				49.56%	49.56%			
SEU	40.29%	40.29%				40.29%	40.29%			
CORP	4.63%	4.63%				4.63%	4.63%			
Unreg	5.52%	5.52%				5.52%	5.52%			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2455.000 - IT BUSINESS INSIGHT - SCG

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

The 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. Therefore, voice count is the most representative determination for the allocation of systems maintenance contract costs to SDGE, SCG, and Parent.

Cost Center Allocation Percentage for 2017

The 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. Therefore, voice count is the most representative determination for the allocation of systems maintenance contract costs to SDGE, SCG, and Parent.

Cost Center Allocation Percentage for 2018

The 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. Therefore, voice count is the most representative determination for the allocation of systems maintenance contract costs to SDGE, SCG, and Parent.

Cost Center Allocation Percentage for 2019

The 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. Therefore, voice count is the most representative determination for the allocation of systems maintenance contract costs to SDGE, SCG, and Parent.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2455.000 - IT BUSINESS INSIGHT - SCG

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs													
Forecast	Forecast Method Base Forecast				Forecast Adjustments				ted-Forec	ast				
Years	Years		2018	2019	2017	2018	2019	2017	2018	2019				
Labor	Base YR Rec	346	346	346	0	0	0	346	346	346				
Non-Labor	Base YR Rec	3	3	3	0	0	0	3	3	3				
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0				
Tota	ıl	350	350	350	0	0	0	350	350	350				
FTE	Base YR Rec	4.0	4.0	4.0	0.0	0.0	0.0	4.0	4.0	4.0				

Year	<u>Adj Group</u>	Labor	<u>NLbr</u>	NSE	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	RefID
				NOL				

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2455.000 - IT BUSINESS INSIGHT - SCG

Determination of Adjusted-Recorded (Incurred Costs):

·····,····	a-Recorded (Incurred Cos 2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
corded (Nominal \$)*		· · ·			
Labor	0	691	546	398	297
Non-Labor	0	14	3	7	3
NSE	0	0	0	0	0
Total	0	705	549	406	301
FTE	0.0	8.1	5.6	4.4	3.4
djustments (Nominal \$) *	*				
Labor	623	0	0	0	0
Non-Labor	27	0	0	0	0
NSE	0	0	0	0	0
Total	650	0	0	0	0
FTE	8.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Nomir	nal \$)				
Labor	623	691	546	398	297
Non-Labor	27	14	3	7	3
NSE	0	0	0	0	0
Total	650	705	549	406	301
FTE	8.0	8.1	5.6	4.4	3.4
acation & Sick (Nominal S	\$)				
Labor	100	115	89	64	49
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	100	115	89	64	49
FTE	1.3	1.4	0.9	0.7	0.6
scalation to 2016\$					
Labor	43	32	14	6	0
Non-Labor	2	1	0	0	0
NSE	0	0	0	0	0
Total	45	33	14	6	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2016\$)				
Labor	766	838	649	469	346
Non-Labor	29	14	3	7	3
NSE	0	0	0	0	0
Total	795	852	652	476	350
FTE	9.3	9.5	6.5	5.1	4.0

* 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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2455.000 - IT BUSINESS INSIGHT - SCG

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs									
Years 2012 2013 2014 2015 2016									
Labor		623	0	0	0	0			
Non-Labor		27	0	0	0	0			
NSE		0	0	0	0	0			
	Total	650	0	0	0	0			
FTE		8.0	0.0	0.0	0.0	0.0			

Detail of Adjustments to Recorded:

Year	<u>Adj Group</u>	Labor	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type	RefID
2012	Other	468	21	0	6.0	CCTR Transf From 2100-3500.000	SOMAHONY20161103145708863
Explanat	tion: IT Emp	loyee Trans	fer from	SDGE	to SC	G as of 2013.	
2012	Other	89	3	0	1.0	CCTR Transf From 2100-3097.000	SOMAHONY20161104185445357
Explanat	tion: IT Emp	loyee Trans	fer from	SDGE	to SC	G as of 2013.	
2012	Other	66	3	0	1.0	CCTR Transf From 2100-3684.000	SOMAHONY20161105181741783
Explanat	tion: IT Emp	loyee Trans	fer from	SDGE	to SC	G as of 2013.	
2012 Tot	al	623	27	0	8.0		
2013 Tot	al	0	0	0	0.0		
2014 Tot	al	0	0	0	0.0		
2015 Tot	al	0	0	0	0.0		
2016 Tot	al	0	0	0	0.0		

Beginning of Workpaper 2200-2458.000 - SCALABLE PLATFORM SERVS - SCG

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub	1. Infrastructure
Cost Center:	2200-2458.000 - SCALABLE PLATFORM SERVS - SCG

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 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 2016\$ (000) Incurred Costs								
	Adjusted-Recorded							cast
Years	2012	2013	2014	2015	2016	2017	2018	2019
Labor	79	564	329	369	253	253	253	253
Non-Labor	3	131	203	112	224	224	224	224
NSE	0	0	0	0	0	0	0	0
Total	82	696	532	482	478	477	477	477
FTE	1.2	4.9	3.0	3.4	2.3	2.4	2.4	2.4

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2458.000 - SCALABLE PLATFORM SERVS - SCG

Cost Center Allocations (Incurred Costs):

	2016 Adjusted-Recorded						2017 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE	
Directly Retained	0	136	0	136	0.0	0	136	0	136	0.0	
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0	
Subj. To % Alloc.	253	88	0	341	2.4	253	88	0	341	2.4	
Total Incurred	253	224	0	477	2.4	253	224	0	477	2.4	
% Allocation											
Retained	61.91%	61.91%				59.94%	59.94%				
SEU	34.50%	34.50%				36.42%	36.42%				
CORP	3.59%	3.59%				3.64%	3.64%				
Unreg	0.00%	0.00%				0.00%	0.00%				

	2018 Adjusted-Forecast						2019 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE	
Directly Retained	0	136	0	136	0.0	0	136	0	136	0.0	
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0	
Subj. To % Alloc.	253	88	0	341	2.4	253	88	0	341	2.4	
Total Incurred	253	224	0	477	2.4	253	224	0	477	2.4	
% Allocation											
Retained	59.94%	59.94%				59.94%	59.94%				
SEU	36.42%	36.42%				36.42%	36.42%				
CORP	3.64%	3.64%				3.64%	3.64%				
Unreg	0.00%	0.00%				0.00%	0.00%				

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2017

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2018

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2019

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2458.000 - SCALABLE PLATFORM SERVS - SCG

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs									
Forecas	Bas	se Foreca	st	Forecast Adjustments			Adjus	ted-Forec	ast	
Years	s	2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	253	253	253	0	0	0	253	253	253
Non-Labor	Base YR Rec	224	224	224	0	0	0	224	224	224
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Tota	l	478	478	478	0	0	0	478	478	478
FTE	Base YR Rec	2.4	2.4	2.4	0.0	0.0	0.0	2.4	2.4	2.4

Year Adj Group Labor NLbr NSI	<u>Total</u> <u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
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Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2458.000 - SCALABLE PLATFORM SERVS - SCG

Determination of Adjusted-Recorded (Incurred Costs):

•	a-Recorded (Incurred Cos 2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
ecorded (Nominal \$)*					
Labor	0	90	279	314	218
Non-Labor	0	6	199	111	224
NSE	0	0	0	0	0
Total	0	96	479	425	442
FTE	0.0	0.8	2.6	2.9	2.0
djustments (Nominal \$) *	*				
Labor	64	375	-2	0	0
Non-Labor	3	120	-1	0	0
NSE	0	0	0	0	0
Total	67	496	-3	0	0
FTE	1.0	3.4	0.0	0.0	0.0
ecorded-Adjusted (Nomir	nal \$)				
Labor	64	465	277	314	218
Non-Labor	3	126	199	111	224
NSE	0	0	0	0	0
Total	67	592	475	425	442
FTE	1.0	4.2	2.6	2.9	2.0
acation & Sick (Nominal S	\$)				
Labor	10	77	45	51	36
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	10	77	45	51	36
FTE	0.2	0.7	0.4	0.5	0.3
scalation to 2016\$					
Labor	4	22	7	5	0
Non-Labor	0	5	4	1	0
NSE	0	0	0	0	0
Total	5	27	12	6	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2016\$)				
Labor	79	564	329	369	253
Non-Labor	3	131	203	112	224
NSE	0	0	0	0	0
Total	82	696	532	482	478
FTE	1.2	4.9	3.0	3.4	2.3

* 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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2458.000 - SCALABLE PLATFORM SERVS - SCG

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs						
	Years	2012	2013	2014	2015	2016
Labor	-	64	375	-2	0	0
Non-Labor		3	120	-0.944	0	0
NSE		0	0	0	0	0
	Total	67	496	-3	0	0
FTE		1.0	3.4	0.0	0.0	0.0

Detail of Adjustments to Recorded:

Year	<u>Adj</u> Gr	oup Labor	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type	RefID
2012	Other	64	3	0	1.0	CCTR Transf From 2100-3684.000	SOMAHONY20161105180014980
Explanat	tion: l	T Employee Trar	nsfer from	SDGE	to SC	G as of 2013.	
2012 Tot	al	64	3	0	1.0		
2013	Other	. 0	0	0	0.0	CCTR Transf From 2200-2452.000	SOMAHONY20170308005858997
Explanat	tion: C	Collaboration Ser	rvices SC(G costs	transt	ferred to 2200-2458.	
2013	Other	5	0	0	0.0	CCTR Transf From 2200-2452.000	SOMAHONY20170308005920777
Explanation: Collaboration Services SCG costs transferred to 2200-2458.							
2013	Other	64	3	0	1.0	CCTR Transf From 2100-3684.000	SOMAHONY20161105175617890
Explanat	tion: l	T Employee Trar	nsfer from	SDGE	to SC	G as of 2013.	
2013	Other	0	5	0	0.0	CCTR Transf From 2200-2452.000	SOMAHONY20170308005938343
Explanat	tion: C	Collaboration Ser	rvices SC0	G costs	transt	ferred to 2200-2458.	
2013	Other	306	113	0	2.4	CCTR Transf From 2200-2452.000	SOMAHONY20170308010006747
Explanat	tion: C	Collaboration Ser	rvices SC(G costs	transt	ferred to 2200-2458.	
2013 Tot	al	375	120	0	3.4		
2014	Other	-2	-1	0	0.0	CCTR Transf From 2200-2452.000	SOMAHONY20170308010100717
Explanat	tion: C	Collaboration Ser	rvices SC(G costs	transt	ferred to 2200-2458.	
2014 Tot	al	-2	-1	0	0.0		

INFORMATION TECHNOLOGY
Christopher R. Olmsted
B. Infrastructure
1. Infrastructure
2200-2458.000 - SCALABLE PLATFORM SERVS - SCG

Year <u>Adj Group</u>	Labor	<u>NLbr</u>	<u>NSE</u> <u>FTE</u>	Adj Type	<u>RefID</u>
2015 Total	0	0	0 0.0		
2016 Total	0	0	0 0.0		

Beginning of Workpaper 2200-2464.000 - CI COMPUTE SUPPORT SCG

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub	1. Infrastructure
Cost Center:	2200-2464.000 - CI COMPUTE SUPPORT SCG

Activity Description:

This cost center provides opperational support for the system-wide enterprise LAN/WAN 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 - Zero-Based

N/A

Summary of Results:

Γ	In 2016\$ (000) Incurred Costs									
		Adju	isted-Recor	Ad	Adjusted-Forecast					
Years	2012	2013	2014	2015	2016	2017	2018	2019		
Labor	633	744	370	605	1,022	1,022	1,022	1,022		
Non-Labor	22	19	3	9	17	17	17	17		
NSE	0	0	0	0	0	0	0	0		
Total	655	764	373	614	1,039	1,039	1,039	1,039		
FTE	7.0	7.2	3.7	5.5	9.2	9.3	9.3	9.3		

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2464.000 - CI COMPUTE SUPPORT SCG

Cost Center Allocations (Incurred Costs):

		2016 Adju	2017 Adjusted-Forecast							
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	1	0	1	0.0	0	1	0	1	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	1,022	16	0	1,038	9.3	1,022	16	0	1,038	9.3
Total Incurred	1,022	17	0	1,039	9.3	1,022	17	0	1,039	9.3
% Allocation										
Retained	48.28%	48.28%				48.28%	48.28%			
SEU	47.47%	47.47%				47.47%	47.47%			
CORP	4.25%	4.25%				4.25%	4.25%			
Unreg	0.00%	0.00%				0.00%	0.00%			
		2018 Adiu	sted-Fore	rast			2019 Adjı	isted-For	acast	

	2018 Adjusted-Forecast						2019 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE	
Directly Retained	0	1	0	1	0.0	0	1	0	1	0.0	
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0	
Subj. To % Alloc.	1,022	16	0	1,038	9.3	1,022	16	0	1,038	9.3	
Total Incurred	1,022	17	0	1,039	9.3	1,022	17	0	1,039	9.3	
% Allocation											
Retained	48.28%	48.28%				48.28%	48.28%				
SEU	47.47%	47.47%				47.47%	47.47%				
CORP	4.25%	4.25%				4.25%	4.25%				
Unreg	0.00%	0.00%				0.00%	0.00%				

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2464.000 - CI COMPUTE SUPPORT SCG

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

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

Cost Center Allocation Percentage for 2017

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

Cost Center Allocation Percentage for 2018

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

Cost Center Allocation Percentage for 2019

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

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2464.000 - CI COMPUTE SUPPORT SCG

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs										
Forecast	Bas	se Foreca	st	Forec	ast Adjust	ments	Adjusted-Forecast				
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019	
Labor	Base YR Rec	1,022	1,022	1,022	0	0	0	1,022	1,022	1,022	
Non-Labor	Base YR Rec	17	17	17	0	0	0	17	17	17	
NSE	Zero-Based	0	0	0	0	0	0	0	0	0	
Total		1,039	1,039	1,039	0	0	0	1,039	1,039	1,039	
FTE	Base YR Rec	9.3	9.3	9.3	0.0	0.0	0.0	9.3	9.3	9.3	

Year	Adj Group	<u>Labor</u>	<u>NLbr</u>	NSE	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	RefID

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2464.000 - CI COMPUTE SUPPORT SCG

Determination of Adjusted-Recorded (Incurred Costs):

	a-Recorded (Incurred Cos 2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
ecorded (Nominal \$)*					
Labor	0	613	311	514	877
Non-Labor	0	19	3	9	17
NSE	0	0	0	0	0
Total	0	632	314	523	894
FTE	0.0	6.2	3.2	4.7	7.9
djustments (Nominal \$) *	*				
Labor	515	0	0	0	0
Non-Labor	21	0	0	0	0
NSE	0	0	0	0	0
Total	536	0	0	0	0
FTE	6.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nomir	nal \$)				
Labor	515	613	311	514	877
Non-Labor	21	19	3	9	17
NSE	0	0	0	0	0
Total	536	632	314	523	894
FTE	6.0	6.2	3.2	4.7	7.9
acation & Sick (Nominal S	\$)				
Labor	82	102	51	83	144
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	82	102	51	83	144
FTE	1.0	1.0	0.5	0.8	1.3
scalation to 2016\$					
Labor	36	29	8	7	0
Non-Labor	1	1	0	0	0
NSE	0	0	0	0	0
Total	37	29	8	8	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2016\$)				
Labor	633	744	370	605	1,022
Non-Labor	22	19	3	9	17
NSE	0	0	0	0	0
Total	655	764	373	614	1,039
FTE	7.0	7.2	3.7	5.5	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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2464.000 - CI COMPUTE SUPPORT SCG

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs									
	Years	2012	2013	2014	2015	2016			
Labor		515	0	0	0	0			
Non-Labor		21	0	0	0	0			
NSE		0	0	0	0	0			
	Total	536	0	0	0	0			
FTE		6.0	0.0	0.0	0.0	0.0			

Detail of Adjustments to Recorded:

Year	<u>Adj Group</u>	Labor	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type	RefiD
2012	Other	246	9	0	2.0	CCTR Transf From 2100-3098.000	SOMAHONY20161104185809467
Explanat	tion: IT Emp	loyee Trans	fer from	SDGE t	to SC	G as of 2013.	
2012	Other	65	3	0	1.0	CCTR Transf From 2100-3100.000	SOMAHONY20161104191547710
Explanat	tion: IT Emp	loyee Trans	fer from	SDGE t	to SC	G as of 2013.	
2012	Other	70	3	0	1.0	CCTR Transf From 2100-3105.000	SOMAHONY20161105164424753
Explanat	tion: IT Emp	loyee Trans	fer from	SDGE t	to SC	G as of 2013.	
2012	Other	62	3	0	1.0	CCTR Transf From 2100-3107.000	SOMAHONY20161105165222457
Explanat	tion: IT Emp	loyee Trans	fer from	SDGE t	to SC	G as of 2013.	
2012	Other	72	3	0	1.0	CCTR Transf From 2100-3335.000	SOMAHONY20161105170431540
Explanat	tion: IT Emp	loyee Trans	fer from	SDGE t	to SC	G as of 2013.	
2012 Tot	al	515	21	0	6.0		
2013 Tot	al	0	0	0	0.0		
2014 Tot	al	0	0	0	0.0		
2015 Tot	al	0	0	0	0.0		
2016 Tot	al	0	0	0	0.0		

Beginning of Workpaper 2200-2466.000 - CI COMPUTE PROVISIONING SCG

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub	1. Infrastructure
Cost Center:	2200-2466.000 - CI COMPUTE PROVISIONING SCG

Activity Description:

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 - Zero-Based

N/A

Summary of Results:

[In 2016\$ (000) Incurred Costs							
		Adju	isted-Recor	Ad	Adjusted-Forecast			
Years	2012	2013	2014	2015	2016	2017	2018	2019
Labor	930	963	775	504	497	497	497	497
Non-Labor	38	24	90	20	141	142	142	142
NSE	0	0	0	0	0	0	0	0
Total	968	987	864	524	638	639	639	639
FTE	9.3	9.7	7.2	4.8	4.7	4.7	4.7	4.7

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2466.000 - CI COMPUTE PROVISIONING SCG

Cost Center Allocations (Incurred Costs):

		2016 Adjusted-Recorded					2017 Adjusted-Forecast			
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	1	0	1	0.0	0	1	0	1	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	497	141	0	638	4.7	497	141	0	638	4.7
Total Incurred	497	142	0	639	4.7	497	142	0	639	4.7
% Allocation										
Retained	48.28%	48.28%				48.28%	48.28%			
SEU	47.47%	47.47%				47.47%	47.47%			
CORP	4.25%	4.25%				4.25%	4.25%			
Unreg	0.00%	0.00%				0.00%	0.00%			

	2018 Adjusted-Forecast				2019 Adjusted-Forecast					
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	1	0	1	0.0	0	1	0	1	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	497	141	0	638	4.7	497	141	0	638	4.7
Total Incurred	497	142	0	639	4.7	497	142	0	639	4.7
% Allocation										
Retained	48.28%	48.28%				48.28%	48.28%			
SEU	47.47%	47.47%				47.47%	47.47%			
CORP	4.25%	4.25%				4.25%	4.25%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2466.000 - CI COMPUTE PROVISIONING SCG

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

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

Cost Center Allocation Percentage for 2017

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

Cost Center Allocation Percentage for 2018

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

Cost Center Allocation Percentage for 2019

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

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2466.000 - CI COMPUTE PROVISIONING SCG

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs									
Forecas	t Method	Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years	s	2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	497	497	497	0	0	0	497	497	497
Non-Labor	Base YR Rec	141	141	141	0	0	0	141	141	141
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
Tota	al	638	638	638	0	0	0	638	638	638
FTE	Base YR Rec	4.7	4.7	4.7	0.0	0.0	0.0	4.7	4.7	4.7

YearAdj GroupLaborNLbrNSETotalFTEAdj TypeRefID	
--	--

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2466.000 - CI COMPUTE PROVISIONING SCG

Determination of Adjusted-Recorded (Incurred Costs):

etermination of Aujusted	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*					
Labor	0	635	621	429	427
Non-Labor	0	22	88	19	141
NSE	0	0	0	0	0
Total	0	657	708	448	568
FTE	0.0	6.7	5.9	4.1	4.0
djustments (Nominal \$) **					
Labor	756	159	31	0	0
Non-Labor	36	1	0	0	0
NSE	0	0	0	0	0
Total	792	160	31	0	0
FTE	8.0	1.6	0.3	0.0	0.0
Recorded-Adjusted (Nomin	al \$)				
Labor	756	794	651	429	427
Non-Labor	36	23	88	19	141
NSE	0	0	0	0	0
Total	792	817	739	448	568
FTE	8.0	8.3	6.2	4.1	4.0
acation & Sick (Nominal \$	5)				
Labor	121	132	106	69	70
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	121	132	106	69	70
FTE	1.3	1.4	1.0	0.7	0.7
scalation to 2016\$					
Labor	53	37	17	6	0
Non-Labor	2	1	2	0	0
NSE	0	0	0	0	0
Total	55	38	19	6	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Consta	ant 2016\$)				
Labor	930	963	775	504	497
Non-Labor	38	24	90	20	141
NSE	0	0	0	0	0
Total	968	987	864	524	638
FTE	9.3	9.7	7.2	4.8	4.7

* 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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2466.000 - CI COMPUTE PROVISIONING SCG

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs									
	Years	2012	2013	2014	2015	2016			
Labor		756	159	31	0	0			
Non-Labor		36	0.922	0	0	0			
NSE		0	0	0	0	0			
	Total	792	160	31	0	0			
FTE		8.0	1.6	0.3	0.0	0.0			

Detail of Adjustments to Recorded:

Year	<u>Adj Gro</u>	<u>up Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type	RefID
2012	Other	205	9	0	2.0	CCTR Transf From 2100-3096.000	SOMAHONY20161104180242350
Explanat	tion: IT I	Employee Trans	sfer from	SDGE	to SC	G as of 2013.	
2012	Other	69	3	0	1.0	CCTR Transf From 2100-3105.000	SOMAHONY20161105164704110
Explanation: IT Employee Transfer from SDGE to SCG as of 2013.							
2012	Other	141	6	0	1.0	CCTR Transf From 2100-3335.000	SOMAHONY20161105170219130
Explanation: IT Employee Transfer from SDGE to SCG as of 2013.							
2012	Other	341	18	0	4.0	CCTR Transf From 2100-3544.000	SOMAHONY20161105172206803
Explanation: IT Employee Transfer from SDGE to SCG as of 2013.							
2012 Tot	al	756	36	0	8.0		
2013	Other	159	1	0	1.6	CCTR Transf From 2200-2459.000	SHAO20170307160834933
Explanat	tion: Sca	alable platform	service c	osts mo	ove to	cost center 2200-2466. Cost center 22	200-2459 has been retired.
2013 Tot	al	159	1	0	1.6		
2014	Other	31	0	0	0.3	CCTR Transf From 2200-2459.000	SHAO20170307162403110
Explanat	tion: Sca	alable platform	service c	osts mo	ove to	cost center 2200-2466. Cost center 22	200-2459 has been retired.
2014 Tot	al	31	0	0	0.3		
2015 Tot	al	0	0	0	0.0		

Area:	INFORMATION TEC							
Witness: Category:	B. Infrastructure	Christopher R. Olmsted 8. Infrastructure						
Category-Sub: Cost Center:	1. Infrastructure 2200-2466.000 - CI	COMPUTE PROVISIONI	NG SCG					
<u>Year Adj Grou</u>	ı <u>p Labor NLbr</u>	<u>NSE</u> <u>FTE</u>	Adj Type	RefiD				
2016 Total	0 0	0 0.0						

Beginning of Workpaper 2200-2467.000 - CI STANDARDS

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub	1. Infrastructure
Cost Center:	2200-2467.000 - CI STANDARDS

Activity Description:

This group is responsible for developing network and computing infrastructure standards, strategies, architectures, and policies which are implemented by various Computing Infrastructure teams. This group is also responsible for providing architectural consultations for critical IT projects as well as interfacing with business clients to understand requirements and provide a conduit to other Computing Infrastructure teams

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 - Zero-Based

N/A

Summary of Results:

Γ	In 2016\$ (000) Incurred Costs											
		Adjusted-Forecast										
Years	2012	2013	2014	2015	2016	2017	2018	2019				
Labor	184	135	68	217	497	497	497	497				
Non-Labor	10	5	1	9	14	14	14	14				
NSE	0	0	0	0	0	0	0	0				
Total	193	140	69	225	511	511	511	511				
FTE	1.2	1.1	0.6	1.9	4.7	4.7	4.7	4.7				

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2467.000 - CI STANDARDS

Cost Center Allocations (Incurred Costs):

Labor Directly Retained		Non-Labor				2017 Adjusted-Forecast				
Directly Retained		Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
-	0	1	0	1	0.0	0	1	0	1	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc. 49	7	13	0	510	4.7	497	13	0	510	4.7
Total Incurred 49	7	14	0	511	4.7	497	14	0	511	4.7
% Allocation										
Retained 48.28	%	48.28%				48.28%	48.28%			
SEU 47.47	%	47.47%				47.47%	47.47%			
CORP 4.25	%	4.25%				4.25%	4.25%			
Unreg 0.00	%	0.00%				0.00%	0.00%			

		2018 Adju	sted-Fore	cast		2019 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	1	0	1	0.0	0	1	0	1	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	497	13	0	510	4.7	497	13	0	510	4.7
Total Incurred	497	14	0	511	4.7	497	14	0	511	4.7
% Allocation										
Retained	48.28%	48.28%				48.28%	48.28%			
SEU	47.47%	47.47%				47.47%	47.47%			
CORP	4.25%	4.25%				4.25%	4.25%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2467.000 - CI STANDARDS

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

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

Cost Center Allocation Percentage for 2017

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

Cost Center Allocation Percentage for 2018

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

Cost Center Allocation Percentage for 2019

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

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2467.000 - CI STANDARDS

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs											
Forecas	Forecast Method Base Forecast				Forec	ast Adjust	ments	Adjusted-Forecast				
Years	s	2017 2018 2019			2017	2018	2019	2017	2018	2019		
Labor	Base YR Rec	497	497	497	0	0	0	497	497	497		
Non-Labor	Base YR Rec	14	14	14	0	0	0	14	14	14		
NSE	Zero-Based	0	0	0	0	0	0	0	0	0		
Total		511	511	511	0	0	0	511	511	511		
FTE	Base YR Rec	4.7	4.7	4.7	0.0	0.0	0.0	4.7	4.7	4.7		

<u>Year</u>	Adj Group	<u>Labor</u>	<u>NLbr</u>	NSE	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2467.000 - CI STANDARDS

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
ecorded (Nominal \$)*					
Labor	0	111	57	184	427
Non-Labor	0	5	1	9	14
NSE	0	0	0	0	0
Total	0	116	59	193	441
FTE	0.0	0.9	0.5	1.6	4.0
djustments (Nominal \$) **	×				
Labor	149	0	0	0	0
Non-Labor	9	0	0	0	0
NSE	0	0	0	0	0
Total	158	0	0	0	0
FTE	1.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Nomir	nal \$)				
Labor	149	111	57	184	427
Non-Labor	9	5	1	9	14
NSE	0	0	0	0	0
Total	158	116	59	193	441
FTE	1.0	0.9	0.5	1.6	4.0
acation & Sick (Nominal \$	\$)				
Labor	24	18	9	30	70
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	24	18	9	30	70
FTE	0.2	0.2	0.1	0.3	0.7
scalation to 2016\$					
Labor	10	5	1	3	0
Non-Labor	1	0	0	0	0
NSE	0	0	0	0	0
Total	11	5	2	3	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	ant 2016\$)				
Labor	184	135	68	217	497
Non-Labor	10	5	1	9	14
NSE	0	0	0	0	0
Total	193	140	69	225	511
FTE	1.2	1.1	0.6	1.9	4.7

* 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.*

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-26-WP/Witness: C. Olmsted Page 155 of 190

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2467.000 - CI STANDARDS

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs											
	Years 2012 2013 2014 2015 2016										
Labor		149	0	0	0	0					
Non-Labor		9	0	0	0	0					
NSE		0	0	0	0	0					
	Total	158	0	0	0	0					
FTE		1.0	0.0	0.0	0.0	0.0					

Detail of Adjustments to Recorded:

Year	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type	RefID
2012	Other	103	6	0	1.0	CCTR Transf From 2100-3335.000	SOMAHONY20161105170007757
Explanation: IT Employee Transfer from SDGE to SCG as of 2013.							
2012	Other	46	3	0	0.0	CCTR Transf From 2100-3100.000	SOMAHONY20161104194152700
Explanat	ion: IT Empl	oyee Transt	fer from S	SDGE 1	to SC	G as of 2013.	
2012 Tota	al	149	9	0	1.0		
2013 Tota	al	0	0	0	0.0		
2014 Tota	al	0	0	0	0.0		
2015 Tota	al	0	0	0	0.0		
2016 Tota	al	0	0	0	0.0		

Beginning of Workpaper 2200-2490.000 - ENTERPRISE ARCHITECTURE

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub	1. Infrastructure
Cost Center:	2200-2490.000 - ENTERPRISE ARCHITECTURE

Activity Description:

This cost center contains all IT Compliance Management enterpise-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 2016\$ (000) Incurred Costs												
		Adju	isted-Recor	Ad	justed-Fore	cast							
Years	2012	2013	2014	2015	2016	2017	2018	2019					
Labor	0	0	198	242	260	260	260	260					
Non-Labor	0	0	3	2	4	4	4	4					
NSE	0	0	0	0	0	0	0	0					
Total	0	0	201	243	264	264	264	264					
FTE	0.0	0.0	1.7	2.1	2.2	2.2	2.2	2.2					

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2490.000 - ENTERPRISE ARCHITECTURE

Cost Center Allocations (Incurred Costs):

[2016 Adjusted-Recorded					2017 Adjusted-Forecast				
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	260	4	0	264	2.2	260	4	0	264	2.2
Total Incurred	260	4	0	264	2.2	260	4	0	264	2.2
% Allocation										
Retained	61.91%	61.91%				59.94%	59.94%			
SEU	34.50%	34.50%				36.42%	36.42%			
CORP	3.59%	3.59%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

		2018 Adjusted-Forecast					2019 Adjusted-Forecast			
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	260	4	0	264	2.2	260	4	0	264	2.2
Total Incurred	260	4	0	264	2.2	260	4	0	264	2.2
% Allocation										
Retained	59.94%	59.94%				59.94%	59.94%			
SEU	36.42%	36.42%				36.42%	36.42%			
CORP	3.64%	3.64%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2017

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2018

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2019

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2490.000 - ENTERPRISE ARCHITECTURE

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs														
Forecast	t Method	Bas	se Foreca	st	Forec	ast Adjust	ments	Adjus	Adjusted-Forecast						
Years	s	2017 2018 2019		2017	2017 2018 2019		2017	2018	2019						
Labor	Base YR Rec	260	260	260	0	0	0	260	260	260					
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					
Tota	Total		264	264	0	0	0	264	264	264					
FTE	Base YR Rec	2.2	2.2	2.2	0.0	0.0	0.0	2.2	2.2	2.2					

Year Adj Group Labor NLbr NSE Total FTE Adj Type Ref	<u>əfID</u>
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Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2490.000 - ENTERPRISE ARCHITECTURE

Determination of Adjusted-Recorded (Incurred Costs):

	a-Recorded (Incurred Cos 2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*	· · · ·				· · ·
Labor	0	0	166	205	223
Non-Labor	0	0	3	2	4
NSE	0	0	0	0	0
Total	0	0	170	207	227
FTE	0.0	0.0	1.5	1.8	1.9
djustments (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
ecorded-Adjusted (Nomir	nal \$)				
Labor	0	0	166	205	223
Non-Labor	0	0	3	2	4
NSE	0	0	0	0	0
Total	0	0	170	207	227
FTE	0.0	0.0	1.5	1.8	1.9
acation & Sick (Nominal S	\$)				
Labor	0	0	27	33	37
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	27	33	37
FTE	0.0	0.0	0.2	0.3	0.3
scalation to 2016\$					
Labor	0	0	4	3	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	4	3	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	tant 2016\$)				
Labor	0	0	198	242	260
Non-Labor	0	0	3	2	4
NSE	0	0	0	0	0
Total	0	0	201	243	264
FTE	0.0	0.0	1.7	2.1	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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2490.000 - ENTERPRISE ARCHITECTURE

Summary of Adjustments to Recorded:

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

Year	Adj Group	<u>Labor</u>	<u>NLbr</u>	NSE FTE	Adj Type	<u>RefID</u>

Beginning of Workpaper 2200-2493.000 - IT PORTFOLIO MANAGEMENT

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub	1. Infrastructure
Cost Center:	2200-2493.000 - IT PORTFOLIO MANAGEMENT

Activity Description:

This cost center provides leadership in establishing policies, strategies, and architectural framework that help guide technology adoptions and alignment with the overall business. It develops 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

N/A

Summary of Results:

[In 2016\$ (000) Incurred Costs										
		Adju	isted-Recor	ded		Adjusted-Forecast					
Years	2012	2013	2014	2015	2016	2017	2018	2019			
Labor	0	0	194	208	298	298	298	298			
Non-Labor	0	0	6	111	270	306	306	306			
NSE	0	0	0	0	0	0	0	0			
Total	0	0	200	319	568	604	604	604			
FTE	0.0	0.0	1.4	1.4	1.9	1.9	1.9	1.9			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2493.000 - IT PORTFOLIO MANAGEMENT

Cost Center Allocations (Incurred Costs):

[2016 Adjusted-Recorded						2017 Adjusted-Forecast			
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	25	1	0	26	0.1	25	1	0	26	0.1
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	273	270	0	543	1.8	273	305	0	578	1.8
Total Incurred	298	271	0	569	1.9	298	306	0	604	1.9
% Allocation										
Retained	61.91%	61.91%				59.94%	59.94%			
SEU	34.50%	34.50%				36.42%	36.42%			
CORP	3.59%	3.59%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

	2018 Adjusted-Forecast						2019 Adjusted-Forecast			
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	25	1	0	26	0.1	25	1	0	26	0.1
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	273	305	0	578	1.8	273	305	0	578	1.8
Total Incurred	298	306	0	604	1.9	298	306	0	604	1.9
% Allocation										
Retained	59.94%	59.94%				59.94%	59.94%			
SEU	36.42%	36.42%				36.42%	36.42%			
CORP	3.64%	3.64%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2017

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2018

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2019

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2493.000 - IT PORTFOLIO MANAGEMENT

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs											
Forecast Method Base Forecast			st	Forec	ast Adjust	ments	Adjusted-Forecast					
Years	6	2017	2017 2018 2019			2018 2019		2017	2018	2019		
Labor	Base YR Rec	298	298	298	0	0	0	298	298	298		
Non-Labor	Base YR Rec	270	270	270	35	35	35	305	305	305		
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0		
Tota	I	568	568	568	35	35	35	603	603	603		
FTE	Base YR Rec	1.8	1.8	1.8	0.0	0.0	0.0	1.8	1.8	1.8		

Forecast Adjustment Details:

<u>Year</u> Adj Gr	oup	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	RefID		
2017 Other		0	35	0	35	0.0	1-Sided Adj	JKLONG20161129105419277		
Explanation:	Purchased	Purchased Services for Data Management Governance								
2017 Total		0	35	0	35	0.0				
2018 Other		0	35	0	35	0.0	1-Sided Adj	JKLONG20161129105436880		
Explanation:	Purchase	d Services	for Data	Manager	ment Gove	rnance				
2018 Total		0	35	0	35	0.0				
2019 Other		0	35	0	35	0.0	1-Sided Adj	JKLONG20161129105446873		
Explanation:	Purchased	d Services	for Data	Manager	ment Gove	rnance				
2019 Total		0	35	0	35	0.0				

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2493.000 - IT PORTFOLIO MANAGEMENT

Determination of Adjusted-Recorded (Incurred Costs):

·····,····	d-Recorded (Incurred Cos 2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
ecorded (Nominal \$)*		· · ·			· · ·
Labor	0	0	163	177	265
Non-Labor	0	0	5	109	270
NSE	0	0	0	0	0
Total	0	0	169	286	536
FTE	0.0	0.0	1.2	1.2	1.7
djustments (Nominal \$) *	*				
Labor	0	0	0	0	-9
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	-9
FTE	0.0	0.0	0.0	0.0	-0.1
ecorded-Adjusted (Nomir	nal \$)				
Labor	0	0	163	177	256
Non-Labor	0	0	5	109	270
NSE	0	0	0	0	0
Total	0	0	169	286	526
FTE	0.0	0.0	1.2	1.2	1.6
acation & Sick (Nominal S	\$)				
Labor	0	0	27	29	42
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	27	29	42
FTE	0.0	0.0	0.2	0.2	0.3
scalation to 2016\$					
Labor	0	0	4	3	0
Non-Labor	0	0	0	1	0
NSE	0	0	0	0	0
Total	0	0	4	4	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	ant 2016\$)				
Labor	0	0	194	208	298
Non-Labor	0	0	6	111	270
NSE	0	0	0	0	0
Total	0	0	200	319	568
FTE	0.0	0.0	1.4	1.4	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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2493.000 - IT PORTFOLIO MANAGEMENT

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs									
Years 2012 2013 2014 2015 2016									
Labor		0	0	0	0	-9			
Non-Labor		0	0	0	0	0			
NSE		0	0	0	0	0			
	Total	0	0	0	0	-9			
FTE		0.0	0.0	0.0	0.0	-0.1			

Detail of Adjustments to Recorded:

Year	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
2012 Tota	al	0	0	0	0.0		
2013 Tota	al	0	0	0	0.0		
2014 Tota	al	0	0	0	0.0		
2015 Tota	al	0	0	0	0.0		
2016	Aliso	-9	0	0	-0.1	1-Sided Adj	SOMAHONY20170223180221567
Explanati	ion: 2016 Alis	so Canyon	- Remo	ving Pro	ductiv	ve Labor	
2016 Tota	al	-9	0	0	-0.1		

Beginning of Workpaper 2200-2494.000 - IT TELECOM PMO

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub	1. Infrastructure
Cost Center:	2200-2494.000 - IT TELECOM PMO

Activity Description:

This cost center provides IT support and delivery of advanced analytics for customer and grid data 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 2016\$ (000) Incurred Costs											
		Adju	isted-Recor	Adjusted-Forecast								
Years	2012	2013	2014	2015	2016	2017	2018	2019				
Labor	0	0	51	0	74	74	74	74				
Non-Labor	0	0	1	4	57	201	201	201				
NSE	0	0	0	0	0	0	0	0				
Total	0	0	52	4	132	275	275	275				
FTE	0.0	0.0	0.5	0.0	0.8	0.8	0.8	0.8				

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2494.000 - IT TELECOM PMO

Cost Center Allocations (Incurred Costs):

		2016 Adju	orded	2017 Adjusted-Forecast						
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	74	57	0	131	0.8	74	201	0	275	0.8
Total Incurred	74	57	0	131	0.8	74	201	0	275	0.8
% Allocation										
Retained	61.91%	61.91%				59.94%	59.94%			
SEU	34.50%	34.50%				36.42%	36.42%			
CORP	3.59%	3.59%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

		2018 Adju	sted-Fore	cast	2019 Adjusted-Forecast					
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	74	201	0	275	0.8	74	201	0	275	0.8
Total Incurred	74	201	0	275	0.8	74	201	0	275	0.8
% Allocation										
Retained	59.94%	59.94%				59.94%	59.94%			
SEU	36.42%	36.42%				36.42%	36.42%			
CORP	3.64%	3.64%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2017

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2018

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Cost Center Allocation Percentage for 2019

The use of LAN ID count is appropriate as it accurately represents the allocation of time and resources between affiliates for this cost center.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2494.000 - IT TELECOM PMO

Summary of Adjustments to Forecast:

In 2016 \$(000) Incurred Costs										
Forecas	ast Method Base Forecast				Forec	ast Adjus	tments	Adjusted-Forecast		
Years		2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	74	74	74	0	0	0	74	74	74
Non-Labor	Base YR Rec	57	57	57	144	144	144	201	201	201
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0
Tota	al	132	132	132	144	144	144	276	276	276
FTE	Base YR Rec	0.8	0.8	0.8	0.0	0.0	0.0	0.8	0.8	0.8
Forecast Adiu	ustment Details:	1		I			I			

Year Adj Gro	oup	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	RefID
2017 Other		0	144	0	144	0.0	1-Sided Adj	JKLONG20170308174428307
Explanation:	Temp agen	cy labor f	or Data A	nalytics	support			
2017 Total		0	144	0	144	0.0		
2018 Other		0	144	0	144	0.0	1-Sided Adj	JKLONG20170308174446417
Explanation:	Temp agen	cy labor f	or Data A	nalytics	support			
2018 Total		0	144	0	144	0.0		
2019 Other		0	144	0	144	0.0	1-Sided Adj	JKLONG20170308174459590
Explanation:	Temp agen	cy labor f	or Data A	nalytics	support			
2019 Total		0	144	0	144	0.0		

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2494.000 - IT TELECOM PMO

Determination of Adjusted-Recorded (Incurred Costs):

·····	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
ecorded (Nominal \$)*					
Labor	0	0	43	0	64
Non-Labor	0	0	1	4	57
NSE	0	0	0	0	0
Total	0	0	43	4	121
FTE	0.0	0.0	0.4	0.0	0.7
djustments (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
ecorded-Adjusted (Nomina	al \$)				
Labor	0	0	43	0	64
Non-Labor	0	0	1	4	57
NSE	0	0	0	0	0
Total	0	0	43	4	121
FTE	0.0	0.0	0.4	0.0	0.7
acation & Sick (Nominal \$)				
Labor	0	0	7	0	11
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	7	0	11
FTE	0.0	0.0	0.1	0.0	0.1
scalation to 2016\$					
Labor	0	0	1	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	1	0	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Consta	ant 2016\$)				
Labor	0	0	51	0	74
Non-Labor	0	0	1	4	57
NSE	0	0	0	0	0
Total	0	0	52	4	132
FTE	0.0	0.0	0.5	0.0	0.8

* 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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2494.000 - IT TELECOM PMO

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs										
	Years	Years 2012 2013 2014 2015 2								
Labor		0	0	0	0	-0.075				
Non-Labor		0	0	0	0	0				
NSE		0	0	0	0	0				
	Total	0	0	0	0	-0.075				
FTE		0.0	0.0	0.0	0.0	0.0				

Detail of Adjustments to Recorded:

Year	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type	RefiD
2012 Tota	al	0	0	0	0.0		
2013 Tota	al	0	0	0	0.0		
2014 Tota	al	0	0	0	0.0		
2015 Tota	al	0	0	0	0.0		
2016	Aliso	0	0	0	0.0 1	-Sided Adj	SOMAHONY20170223180803550
Explanati	ion: 2016 Alis	o Canyon	- Remo	ving Pro	ductive	Labor	
2016 Tota	al	0	0	0	0.0		

Beginning of Workpaper 2200-2565.000 - IT TELECOM PMO

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub	1. Infrastructure
Cost Center:	2200-2565.000 - IT TELECOM PMO

Activity Description:

The Telecom PMO provides project management and development for IT Telecom 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 2016\$ (000) Incurred Costs										
		Adju	isted-Recor	Ad	Adjusted-Forecast						
Years	2012	2013	2014	2015	2016	2017	2018	2019			
Labor	0	0	0	60	89	88	88	88			
Non-Labor	0	0	0	3	5	5	5	5			
NSE	0	0	0	0	0	0	0	0			
Total	0	0	0	63	94	93	93	93			
FTE	0.0	0.0	0.0	0.4	0.7	0.6	0.6	0.6			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2565.000 - IT TELECOM PMO

Cost Center Allocations (Incurred Costs):

		2016 Adju	sted-Reco	orded	2017 Adjusted-Forecast							
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE		
Directly Retained	24	1	0	25	0.2	24	1	0	25	0.2		
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0		
Subj. To % Alloc.	64	4	0	68	0.4	64	4	0	68	0.4		
Total Incurred	88	5	0	93	0.6	88	5	0	93	0.6		
% Allocation												
Retained	61.91%	61.91%				59.94%	59.94%					
SEU	34.50%	34.50%				36.42%	36.42%					
CORP	3.59%	3.59%				3.64%	3.64%					
Unreg	0.00%	0.00%				0.00%	0.00%					
		2018 Adju	sted-Fore	cast	2018 Adjusted-Forecast							

	· · · · · · · · · · · · · · · · · · ·									
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	24	1	0	25	0.2	24	1	0	25	0.2
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	64	4	0	68	0.4	64	4	0	68	0.4
Total Incurred	88	5	0	93	0.6	88	5	0	93	0.6
% Allocation										
Retained	59.94%	59.94%				59.94%	59.94%			
SEU	36.42%	36.42%				36.42%	36.42%			
CORP	3.64%	3.64%				3.64%	3.64%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2565.000 - IT TELECOM PMO

Cost Center Allocation Percentage Drivers/Methodology:

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.

Cost Center Allocation Percentage for 2017

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 2018

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 2019

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.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2565.000 - IT TELECOM PMO

Summary of Adjustments to Forecast:

	In 2016 \$(000) Incurred Costs									
Forecas	t Method	Bas	se Foreca	st	Forec	ast Adjust	ments	Adjus	ted-Forec	ast
Years	s	2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	89	89	89	0	0	0	89	89	89
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
Tota	d	94	94	94	0	0	0	94	94	94
FTE	Base YR Rec	0.6	0.6	0.6	0.0	0.0	0.0	0.6	0.6	0.6

Year	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	NSE	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	RefID
				NUL				

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2565.000 - IT TELECOM PMO

Determination of Adjusted-Recorded (Incurred Costs):

	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
ecorded (Nominal \$)*					
Labor	0	0	0	51	76
Non-Labor	0	0	0	3	5
NSE	0	0	0	0	0
Total	0	0	0	54	81
FTE	0.0	0.0	0.0	0.4	0.5
djustments (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
ecorded-Adjusted (Nomin	al \$)				
Labor	0	0	0	51	76
Non-Labor	0	0	0	3	5
NSE	0	0	0	0	0
Total	0	0	0	54	81
FTE	0.0	0.0	0.0	0.4	0.5
acation & Sick (Nominal \$)				
Labor	0	0	0	8	13
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	8	13
FTE	0.0	0.0	0.0	0.1	0.1
scalation to 2016\$					
Labor	0	0	0	1	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	1	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Consta	ant 2016\$)				
Labor	0	0	0	60	89
Non-Labor	0	0	0	3	5
NSE	0	0	0	0	0
Total	0	0	0	63	94
FTE	0.0	0.0	0.0	0.5	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.*

SCG/INFORMATION TECHNOLOGY/Exh No:SCG-26-WP/Witness: C. Olmsted Page 180 of 190

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	B. Infrastructure
Category-Sub:	1. Infrastructure
Cost Center:	2200-2565.000 - IT TELECOM PMO

Summary of Adjustments to Recorded:

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

Year	Adj Group	<u>Labor</u>	<u>NLbr</u>	NSE FTE	Adj_Type	RefID

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	C. IT Support
Cost Center:	2200-2496.000

Summary for Category: C. IT Support

	In 2016\$ (000) Incurred Costs							
	Adjusted-Recorded		Adjusted-Forecast					
	2016	2017	2018	2019				
Labor	344	344	344	344				
Non-Labor	14	14	14	14				
NSE	0	0	0	0				
Total	358	358	358	358				
FTE	5.5	5.5	5.5	5.5				

Cost Centers belonging to this Category:

2200-2496.000 SCG IT ASSOCIATE PROGRAM

Labor	344	344	344	344
Non-Labor	14	14	14	14
NSE	0	0	0	0
Total	358	358	358	358
FTE	5.5	5.5	5.5	5.5

Beginning of Workpaper 2200-2496.000 - SCG IT ASSOCIATE PROGRAM

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	C. IT Support
Category-Sub	1. IT Support
Cost Center:	2200-2496.000 - SCG IT ASSOCIATE PROGRAM

Activity Description:

This cost center provides a structured environment for new IT Associate employees to enhance their knowledge and skills, and gain a broad based perspective of the SEU IT organization by rotating among three SEU IT departments.

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 2016\$ (000) Incurred Costs									
		Adju	isted-Recor	Ad	justed-Fore	cast				
Years	2012	2013	2014	2015	2016	2017	2018	2019		
Labor	0	4	6	72	344	344	344	344		
Non-Labor	0	0	4	8	14	14	14	14		
NSE	0	0	0	0	0	0	0	0		
Total	0	5	10	80	358	358	358	358		
FTE	0.0	0.1	0.1	1.2	5.5	5.5	5.5	5.5		

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	C. IT Support
Category-Sub:	1. IT Support
Cost Center:	2200-2496.000 - SCG IT ASSOCIATE PROGRAM

Cost Center Allocations (Incurred Costs):

		2016 Adju	sted-Reco	orded		2017 Adjı	usted-Fore	cast		
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	344	14	0	358	5.5	344	14	0	358	5.5
Total Incurred	344	14	0	358	5.5	344	14	0	358	5.5
% Allocation										
Retained	64.21%	64.21%				62.20%	62.20%			
SEU	35.79%	35.79%				37.80%	37.80%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			
		2018 Adju	sted-Fore	cast			2019 Adju	usted-Fore	cast	

		2018 Adjus	sted-Fore	cast		2019 Adju	sted-Fore	cast		
	Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
Directly Retained	0	0	0	0	0.0	0	0	0	0	0.0
Directly Allocated	0	0	0	0	0.0	0	0	0	0	0.0
Subj. To % Alloc.	344	14	0	358	5.5	344	14	0	358	5.5
Total Incurred	344	14	0	358	5.5	344	14	0	358	5.5
% Allocation										
Retained	62.20%	62.20%				62.20%	62.20%			
SEU	37.80%	37.80%				37.80%	37.80%			
CORP	0.00%	0.00%				0.00%	0.00%			
Unreg	0.00%	0.00%				0.00%	0.00%			

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	C. IT Support
Category-Sub:	1. IT Support
Cost Center:	2200-2496.000 - SCG IT ASSOCIATE PROGRAM

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2016

Costs will be allocated based on employees with LAN access at SDG&E & SCG. The allocations are supported by the rationale that all 3 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 2017

Costs will be allocated based on employees with LAN access at SDG&E & SCG. The allocations are supported by the rationale that all 3 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 2018

Costs will be allocated based on employees with LAN access at SDG&E & SCG. The allocations are supported by the rationale that all 3 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 2019

Costs will be allocated based on employees with LAN access at SDG&E & SCG. The allocations are supported by the rationale that all 3 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.

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	C. IT Support
Category-Sub:	1. IT Support
Cost Center:	2200-2496.000 - SCG IT ASSOCIATE PROGRAM

Summary of Adjustments to Forecast:

In 2016 \$(000) Incurred Costs										
Forecast	t Method	Base Forecast			Forec	ast Adjust	ments	Adjusted-Forecast		
Years	s	2017	2018	2019	2017	2018	2019	2017	2018	2019
Labor	Base YR Rec	344	344	344	0	0	0	344	344	344
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
Tota	ıl	358	358	358	0	0	0	358	358	358
FTE	Base YR Rec	5.5	5.5	5.5	0.0	0.0	0.0	5.5	5.5	5.5

<u>Year Adj Group Labor NLbr NSE Total FTE Adj Type RefID</u>	<u>Year</u>	<u>Adj Group</u>	<u>Labor</u>	<u>NLbr</u>	NSE	<u>Total</u>	<u>FTE</u>	<u>Adj Type</u>	<u>RefID</u>
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Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	C. IT Support
Category-Sub:	1. IT Support
Cost Center:	2200-2496.000 - SCG IT ASSOCIATE PROGRAM

Determination of Adjusted-Recorded (Incurred Costs):

	a-Recorded (Incurred Cos 2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)
Recorded (Nominal \$)*			· · ·		
Labor	0	4	5	61	295
Non-Labor	0	0	4	8	14
NSE	0	0	0	0	0
Total	0	4	9	70	309
FTE	0.0	0.1	0.1	1.0	4.7
djustments (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 (Nomir	nal \$)				
Labor	0	4	5	61	295
Non-Labor	0	0	4	8	14
NSE	0	0	0	0	0
Total	0	4	9	70	309
FTE	0.0	0.1	0.1	1.0	4.7
acation & Sick (Nominal S	\$)				
Labor	0	1	1	10	49
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	1	1	10	49
FTE	0.0	0.0	0.0	0.2	0.8
scalation to 2016\$					
Labor	0	0	0	1	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	1	0
FTE	0.0	0.0	0.0	0.0	0.0
ecorded-Adjusted (Const	ant 2016\$)				
Labor	0	4	6	72	344
Non-Labor	0	0	4	8	14
NSE	0	0	0	0	0
Total	0	5	10	80	358
FTE	0.0	0.1	0.1	1.2	5.5

* 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.*

Area:	INFORMATION TECHNOLOGY
Witness:	Christopher R. Olmsted
Category:	C. IT Support
Category-Sub:	1. IT Support
Cost Center:	2200-2496.000 - SCG IT ASSOCIATE PROGRAM

Summary of Adjustments to Recorded:

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

Year	Adj Group	<u>Labor</u>	<u>NLbr</u>	NSE FTE	Adj Type	RefID

Area: INFORMATION TECHNOLOGY Witness: Christopher R. Olmsted

Appendix A: List of Non-Shared Cost Centers

Cost Center	Sub	Description
2200-0056	000	IT LVC FOR BUDGET USE ONLY
2200-0619	000	SCG NETWORK SUPPORT
2200-2198	000	OPEX 20/20 FIELD FORCE INITIATIVES
2200-2250	000	OPEX ASSET MANAGEMENT GIS
2200-2251	000	OPEX 20/20 IT INFRASTRUCTURE
2200-2252	000	CUSTOMER CARE ICE INTERACTIONS
2200-2253	000	PROJECT MANAGEMENT OFFICE FOR OPEX 20/20
2200-2256	000	FIELD WMS - MAINTENANCE AND INSPECTION
2200-2273	000	CPD IMPLEMENTATION SUPPORT
2200-2275	000	CUSTOMER CARE ICE SELF SERVICE
2200-2379	000	BUS COMM SVCS-SCG CUSTCONTCTR
2200-2384	000	IT APPLICATIONS NORTH PMO
2200-2385	000	SCG CUSTOMER INFO SYSTEMS & MAJOR MKTS
2200-2387	000	CUSTOMER SELF SERVICES
2200-2388	000	SCG INFRASTRUCTURE MIDDLEWARE
2200-2395	000	BUSINESS VOICE COMM SERVICES
2200-2400	000	SCG NETWORK INTEGRATION
2200-2405	000	SCG APPS CUSTOMER SELF SERVICES
2200-2420	000	SCG PERSONAL OWNED DEVICE ALLOWANCE
2200-2448	000	SYSTEM INTEGRATION & ARCHITECTURE
2200-2449	000	SCG APPS SW CUST INF
2200-2450	000	SCG APPS SW FIELD SR
2200-2454	000	INFRASTRUCTURE PMO
2200-2465	000	SCG NETWORK ENGINEERING
2200-2483	000	SCG SHARED APP PGRM
2200-2508	000	UO/F CONTRACTS-SCG
2200-2511	000	SCG COMPUCOM CONTRACT SERVICE
2200-2513	000	IT & OTI CONTRACTS - NSS
2200-2566	000	MAINFRAME CONTRACTS - SCG
2200-2582	000	SCG NETWORK ENGINEERING