Company: San Diego Gas & Electric Company (U902M)

Proceeding: 2016 General Rate Case

Application: A.14-11-003 Exhibit: SDG&E-219

SDG&E

REBUTTAL TESTIMONY OF STEPHEN J. MIKOVITS (INFORMATION TECHNOLOGY)

June 2015

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA



TABLE OF CONTENTS

I.	SUM	IMAR	Y OF DIFFERENCES	1
II.	INT	RODU	CTION	2
	A.	ORA	A Positions	2
	В.	UCA	AN Positions	3
	C.	SDG	&E Amended Revised Testimony and Workpapers	3
III.	REB	UTTA	L TO ORA PROPOSAL	4
	A.	Flav	ved Analysis used in ORA's O&M Proposals	4
		1.	ORA used inconsistent forecast methodologies throughout its testimony	4
		2.	ORA lacks any basis for rejecting SDG&E's consistent base year pluadjustments forecast methodology	
	В.	Disp	outed Costs - O&M Labor Forecasts	7
		1.	SDG&E provides sufficient detail and analysis in support of SDG&E's request of incremental TY 2016 labor expenses of \$5.2 million	7
		2.	SDG&E's use of "professional judgement" and "management experience" is valid and supported	8
	C.	Disp	outed Costs - O&M Non-Labor Forecasts	10
		1.	SDG&E provides sufficient details and analysis to support its incremental TY 2016 non-labor expenses request of \$13.9 million	.11
		2.	ORA's use of a five-year linear trend will not adequately fund IT contract expenditures during the TY 2016 forecast period	.12
			a. New IT contract expenditures	13
			b. Other IT contract expenditures	14
IV.	REB	UTTA	L TO PARTIES' CAPITAL PROPOSALS	14
	A.	ORA	1	14
		1.	Undisputed Costs - 2015 Capital Expenditures	14
		2.	Undisputed Costs - 2016 Capital Expenditures	14
	В.	UCA	AN	15
		1.	Disputed Costs – Capital Forecast For Bill Redesign	15
V.	REB	UTTA	L TO ORA INFORMATION SECURITY PROPOSALS	15
	A.	Und	isputed Costs - Labor O&M	15
	В.	Und	isputed Costs - Non-Labor O&M	15
	C.	Trac	cking of Cybersecurity and Risk Management expenditures	15
VI.	CON	ICLUS	ION	16

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SDG&E REBUTTAL TESTIMONY OF STEPHEN J. MIKOVITS

(INFORMATION TECHNOLOGY)

I. SUMMARY OF DIFFERENCES

The Office of Ratepayer Advocates ("ORA") and the Utility Consumers' Action Network ("UCAN") submitted testimony regarding SDG&E's Information Technology ("IT") requested funding in this proceeding.

Only ORA submitted testimony regarding SDG&E's IT operations and maintenance ("O&M") funding in this proceeding. Table SJM-1 depicts the difference between SDG&E's total Test Year ("TY") 2016 IT O&M forecast and ORA's recommended amounts.

Table SJM-1 Total SDG&E IT O&M (Shared & Non-Shared)

TOTAL O&M - Constant 2013 (\$000)										
	Base Year 2013	Test Year 2016	Change							
SDG&E ¹	89,951	109,109	19,158							
ORA^2	89,951	99,201 ³	9,250							

Only ORA and UCAN submitted testimony that directly addressed SDG&E's requested IT Capital funding in this proceeding. Table SJM-2 depicts the difference between SDG&E's 2014-2016 IT Capital forecast and these parties' recommended amounts.

¹ Ex. SDG&E 19-R-Amended at SJM-iv.

² ORA's recommendations for SDG&E Base Year, Test Year and several cost category-specific recommendations were impacted by an additional exclusion for Dynamic Pricing ("DP") Refundable IOs per Decision ("D.") 12-12-004 for SDG&E's Dynamic Pricing Application. SDG&E previously provided information about this additional DP exclusion in my Amended Revised Testimony, (SDG&E-19-R-Amended) and Workpapers (SDG&E-19-WP-R-Amended) in May 2015. In Appendix A, attached hereto, SDG&E provides adjustments to ORA's recommendations by cost category based on the impact of DP changes.

³ Exhibit ("Ex.") ORA-15, Report on the Results of Operations for San Diego Gas & Electric Company and Southern California Gas Company, Test Year 2016 General Rate Case – Information Technology, ORA Witness P. Morse, April 24, 2015, at 2 (Table 15-1).

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Table SJM-2 Summary of SDG&E IT Capital

TOTAL CAPITAL - Constant 2013 (\$000)									
	2014	2015	2016						
SDG&E	94,274	62,084	35,388						
ORA	88,635	62,084	35,388						
UCAN ⁴	94,274	$60,155^5$	33,994 ⁶						

II. INTRODUCTION

A. ORA Positions

ORA issued its report on IT on April 24, 2015.⁷ The following is a summary of ORA's positions regarding SDG&E's O&M expenses:

- ORA recommends TY 2016 Shared and Non-Shared service labor expenses of \$36.7 million, which is \$3.8 million lower than SDG&E's forecast of \$40.5 million.⁸
- ORA recommends using a six-year average (2009-2014) of labor expenses for a TY 2016 forecast of \$36.5 million and incremental labor expenses for Information Security of \$0.2 million for a TY 2016 forecast of \$36.7 million.⁹
- ORA recommends utilizing a five-year linear trend for "IT-Contract" non-labor expenses, excluding Information Security, for a TY 2016 forecast of \$48.1 million, which is \$9 million lower than SDG&E's forecast of \$57.1 million.¹⁰
- ORA recommends using a five-year average for all non-labor expenses that are not categorized by SDG&E as "IT contract" or Information Security expenses for a TY 2016 forecast of \$11.5 million, which is \$3 million higher than SDG&E's forecast of \$8.5 million. 11

⁴ Testimony of Briana Kobor, Laura Norin, and Mark Fulmer on behalf of The Utility Consumers' Action Network concerning Sempra's Revenue Requirement Proposals for San Diego Gas & Electric and SoCalGas. Ex. UCAN (M. Fulmer) at 84.

⁵ Ex. UCAN (M. Fulmer) at 84, lines 18-20. This figure includes UCAN recommend reduction of \$1.9 million in 2015 for Bill Redesign Project.

⁶ Ex. UCAN (M. Fulmer) at 84, lines 18-20. This figure includes UCAN recommend reduction of \$1.4 million in 2016 for Bill Redesign Project.

⁷ See generally Ex. ORA-15 (witness P. Morse).

⁸ Ex. ORA-15 at 1, lines 13-15. The ORA recommendation stated herein reflects any applicable impact of DP changes. See Appendix A.

⁹ Ex. ORA-15 at 1, lines 13-15. The ORA recommendation stated herein reflects any applicable impact of DP changes. See Appendix A.

¹⁰ Ex. ORA-15 at 1, lines 22-24.

¹¹ Ex. ORA-15 at 1, lines 25-28. The ORA recommendation stated herein reflects any applicable impact of DP changes. See Appendix A.

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- ORA recommends approving SDG&E's TY 2016 incremental non-labor request for Information Security of \$1.8 million, thereby approving a total \$2.9 million for TY 2016 Information Security expenses.¹²
- ORA recommends as part of SDG&E's next General Rate Case ("GRC") filing to track O&M expenses and capital expenditures for Cybersecurity and Risk Management in the four areas presented in this TY 2016 GRC, Governance and Compliance, Awareness and Outreach, Security Engineering, and Security Operations. ¹³

The following is a summary of ORA's positions regarding SDG&E's capital expenditures:

- ORA recommends utilizing 2014 adjusted-recorded capital expenditure of \$88.7 million, which is \$5.6 million less than SDG&E's forecast of \$94.3 million. 14
- ORA accepts SDG&E's forecasts for 2015 and 2016 of \$62.1 million and \$35.4 million, respectively. 15

B. UCAN Positions

The Utility Consumers' Action Network (UCAN) submitted testimony on May 15, 2015. The following is UCAN's position as related to SDG&E's IT Capital Funding request:

• "UCAN is supportive of the goal of redesigning bills in order to help customers better understand their energy usage and their bills. However, UCAN is troubled by the lack of information provided on the proposed budget and SDG&E's inability to provide more a detailed breakdown of costs by activity. Without a more detailed forecast of bill redesign costs that justifies the need for \$3.3 million to complete this project, UCAN requests that funding be denied." ¹⁷

C. SDG&E Amended Revised Testimony and Workpapers

SDG&E filed Amended Revised testimony and Amended Revised Workpapers in May 2015 to provide correct information reflecting an exclusion for Dynamic Pricing ("DP") Refundable Internal Orders resulting from D.12-12-004 (SDG&E's Dynamic Pricing Application). The resulting adjustments impacted both SDG&E Labor and Non-Labor O&M costs that had been included in historical data ranging from 2010-2013 and had been submitted

¹²Ex. ORA-15 at 1, lines 29-31.

¹³ Ex. ORA-15 at 2, lines 1-5.

¹⁴ Ex. ORA-15 at 2, lines 8-10.

¹⁵Ex. ORA-15 at 2, lines 11-12.

¹⁶ Ex. UCAN (M. Fulmer) at 82 through 84.

¹⁷ Ex. UCAN (M. Fulmer) at 84, lines 14 - 20.

¹⁸ The reduction is related to the actual recorded IT costs that were captured using multiple Internal Orders after the establishment of the Dynamic Pricing Balancing Account. See Ex. SDG&E-19-R-Amended at SJM-D-2 and SJM-D-3 for additional information.

- 1 to ORA in March 2015. The net impact of this change in Base Year 2013 was a total reduction
- 2 (including Labor and Non-Labor) of \$587k.¹⁹ When appropriate, tables presented in my
- 3 Rebuttal Testimony reflect the adjustment for this change. In the interest of transparency,
- 4 SDG&E has also re-calculated ORA's recommendations, as if ORA had the correct and updated
- 5 | information about this Dynamic Pricing-related reduction, and including those recalculated
- 6 amounts in the tables throughout this Rebuttal Testimony. Details of the recalculations are
- 7 provided in Appendix A, attached hereto.

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III. REBUTTAL TO ORA PROPOSAL

A. Flawed Analysis used in ORA's O&M Proposals

There are several fundamental flaws in how ORA has analyzed SDG&E's request for TY 2016 IT funding. The following sections identify these flaws in ORA's analysis and describe why SDG&E believes the California Public Utilities Commission ("Commission") should reject ORA's recommendations and instead adopt SDG&E's position.

1. ORA used inconsistent forecast methodologies throughout its testimony

As described in my Amended Revised Testimony, in order to reflect the fact that IT is a shared services organization with cost centers that provide services to both utilities, SDG&E and SoCalGas use the base year 2013 adjusted recorded cost plus incremental activity to forecast TY 2016 costs for every IT cost category.²⁰ This forecast methodology is consistently used across all workgroups and is similarly used for a majority of work groups in the prior rate case (TY 2012) for both SDG&E and SoCalGas.²¹

Unlike SDG&E, ORA used a variety of forecasting methodologies when developing its final recommendations across SDG&E and SoCalGas IT cost categories. For example, ORA used inconsistent approaches for similar incremental labor cost forecasts for the two utilities and three different approaches for its non-labor cost forecast. Table SJM-3 depicts the varying forecast methodologies used by ORA in contrast to the single base year plus incremental activities adjustments methodology consistently applied for all cost categories by SDG&E and SoCalGas.

¹⁹ The reduction of \$587k is \$34k more than previously footnoted in my March 2015 Revised Testimony, SDG&E-19-R at SJM-iv, fn1.

²⁰ Ex. SDG&E-19-R-Amended (S. Mikovits) at SJM-15, lines 27 - 28

²¹ See D.13-05-010 (issued May 14, 2013); see also Direct testimony of Jeffery C. Nichols, A.10-12-006, Ex. SDG&E-18-R, at JCN-27, line 14 through JCN-31, line 21.

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Table SJM-3 Comparison of

SDG&E, SoCalGas and ORA Forecasting Methodologies – O&M

	SDG&E / SoCalGas	ORA
	Forecast Basis	Forecast Basis
SDG&E IT		
Labor	Base year plus adjustments	Six year average, 2009-14 ²²
Labor - Information Security	Base year plus adjustments	Accepts SDG&E proposal ²³
Non-Labor	Base year plus adjustments	Five year average ²⁴
Non-Labor – Contracts	Base year plus adjustments	Five year trend ²⁵
Non-Labor - Information	Base year plus adjustments	Accepts SDG&E proposal ²⁶
Security		
SoCalGas IT		
Labor	Base year plus adjustments	Highest recorded, 2009-14 ²⁷
Labor - Information Security	Base year plus adjustments	Accepts SoCalGas proposal ²⁸
Non-Labor	Base year plus adjustments	Accepts SoCalGas proposal ²⁹

ORA's inconsistent approach ignores the fact that IT is a shared services organization with cost centers that provide services to both SDG&E and SoCalGas.³⁰ As a shared service, IT is performing a consistent set of activities and services for SDG&E and SoCalGas, and thereby has similar cost structures for providing such services. A consistent forecast methodology should be used.

ORA's use of multiple forecast methodologies is arbitrary and inconsistently applied among the cost categories. In addition, ORA's inconsistent methodology approach across the complex IT organization is questionable. In contrast, SDG&E chose a single forecasting method that was applied consistently across all IT cost categories.

²² Ex. ORA-15 at 10, lines 7-8.

²³ Ex. ORA-15 at 18, lines 10-12.

²⁴ Ex. ORA-15 at14, lines 7-10.

²⁵ Ex. ORA-15 at 146-7.

²⁶ Ex. ORA-15 at 18, lines 10-12.

²⁷ Ex. ORA-15 at 26, lines 7-10.

²⁸ Ex. ORA-15 at 31, lines 12-14.

²⁹ Ex. ORA-15 at 31, lines 2-4.

³⁰ Ex. SDG&E-19-R-Amended at SJM-4, lines 1-2.

2. ORA lacks any basis for rejecting SDG&E's consistent base year plus adjustments forecast methodology

Not only did ORA arbitrarily and inconsistently use a variety of different forecast methodologies, but it also failed to provide any basis for rejecting SDG&E's consistent use of base year plus adjustments.

SDG&E consistently uses the same forecast methodology for all O&M labor forecasts.³¹ As I explain in my Amended Revised Testimony, the use of base year 2013 adjusted recorded O&M labor expenses plus adjustments for TY 2016 incremental resource requirements is appropriate and justified due to the nature of IT-related costs.³² The consistent use of base year 2013 adjusted recorded O&M labor expenses plus adjustments is reasonable for SDG&E because:

- The pace of change in the technology industry continues to accelerate when compared to prior years.³³
- A rapidly changing security threat landscape drives SDG&E's current cybersecurity risk management activities.³⁴
- Evolving regulatory requirements around customer data privacy are not fully reflected in a historical average. 35
- The level of support provided by the IT Division continues to grow as new IT capital projects and technologies are implemented.³⁶

SDG&E consistently applies this methodology across the entire forecast because the themes do not change when considering the various cost categories. The same methodology was also applied to SoCalGas' IT forecasts since much of IT is a shared service and provides similar services to both utilities.³⁷

ORA did not provide any support or rational basis for its request that the Commission reject SDG&E's consistent application of base year plus adjustments forecasting methodology.

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³¹ Ex. SDG&E-19-R-Amended at SJM-2, lines 5-6.

³² Ex. SDG&E-19-R-Amended at SJM-2 line 8 through SJM-3, line 3.

³³ Ex. SDG&E-19-R-Amended at SJM-2, lines 8-9.

³⁴ Ex. SDG&E-19-R-Amended at SJM-2, lines 14-15.

³⁵ Ex. SDG&E-19-R-Amended at SJM-2, lines 17-18.

³⁶ Ex. SDG&E-19-R-Amended at SJM-2, lines 19-22.

³⁷ Ex. SCG-18-R at CRO-2, line 5 through CRO-3, line 3.

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Table SJM-4

Summary of SDG&E IT Shared & Non-Shared Labor O&M

ORA recommends \$1.394 million for SDG&E's O&M incremental labor expenses,

which is \$3.824 million, or 73%, less than SDG&E's TY 2016 incremental request.³⁸ Table

SJM-4 depicts the difference between SDG&E's TY 2016 O&M Shared & Non-Shared Labor

Disputed Costs - O&M Labor Forecasts

forecast and ORA's proposal in this proceeding.

SHARED & NON-SHARED LABOR O&M - Constant 2013 (\$000)									
	Base Year 2013	Test Year 2016	Change						
SDG&E	35,318	40,536	5,218						
ORA	35,318	36,712 ³⁹	$1,394^{40}$						

As explained in detail below, SDG&E provides sufficient detail through its testimony, workpapers and responses to data requests to support its forecast. The Commission should adopt SDG&E's TY 2016 incremental labor forecast of \$5.2 million for a total of \$40.5 million as reasonable.

1. SDG&E provides sufficient detail and analysis in support of SDG&E's request of incremental TY 2016 labor expenses of \$5.2 million

ORA asserts that SDG&E provided "no documents to support the level of requested increases in labor expenses."41 Contrary to ORA's assertion, SDG&E's Amended Revised Testimony and Amended Revised O&M Workpapers provide sufficient narrative and analytical support for its incremental labor expenses request. 42 SDG&E's workpapers provide details for SDG&E's O&M labor expense forecast that is summarized in my Amended Revised Testimony. Forecasted costs are categorized by shared and non-shared forecasts, and further into IT functional groupings (i.e., Applications, Infrastructure, Information Security and IT Support). Workpapers include additional details, such as cost center and activity descriptions, forecast

³⁸ Ex. ORA-15 at 3, lines 9-10.

³⁹ The ORA recommendation stated herein reflects any applicable impact of DP changes. See Appendix

⁴⁰ The ORA recommendation stated herein reflects any applicable impact of DP changes. See Appendix

⁴¹ Ex. ORA-15 at 12, lines 4-5.

⁴² See generally Ex. SDG&E-19-WP-R-Amended.

methodology explanations, 2009 through 2013 recorded costs (labor and non-labor), year-to-year (2014-2016) line item incremental activities for 142 cost centers (shared and non-shared), and explanations for incremental changes for each of the forecast years.

For example, a portion of SDG&E's overall labor forecast is tied to the increase in Infrastructure support responsibilities in cost center 2100-3095 as a result of the implementation of various capital projects, including the Construction, Planning and Design ("CPD") project and the SDG&E Smart Grid Communication System ("SGCS") project. ⁴³ This incremental adjustment for cost center 2100-3095 is included in Shared O&M Infrastructure costs, which are discussed in my Amended Revised Testimony, ⁴⁴ and included in my O&M workpapers. ⁴⁵ For the reader's ease, a copy of the workpapers for cost center 2100-3095 is provided in Appendix B (attached) as an example of the level of detailed support that SDG&E has provided in support of its labor forecast. ⁴⁶

SDG&E also provided additional analytical information in support of its requested labor increases to ORA during discovery. In response to an ORA data request, (provided hereto as Appendix C), SDG&E provided ORA with additional and comprehensive information about its incremental labor forecast. SDG&E's response provides a comprehensive overview of SDG&E's entire incremental labor request (without having to sift through all 621 pages of O&M workpapers) and documents all of SDG&E's estimating assumptions and calculations that were utilized for its forecast.

In summary, contrary to ORA's assertion, SDG&E has provided sufficient detail and analysis in support of its request of incremental TY 2016 labor expenses of \$5.2 million.

2. SDG&E's use of "professional judgement" and "management experience" is valid and supported

SDG&E's labor request was forecasted, in part, using the professional judgement of its IT staff on a cost center by cost center basis. Identifying upward cost pressures (or downward relief in the form of cost savings) in an IT organization is not always directly correlated to a simple business metric or key performance indicator ("KPI"), such as meter count or customer

⁴³ See Ex. SDG&E-19-WP-R-Amended at 219 -227.

⁴⁴ Ex. SDG&E-19-R-Amended at SJM-17 through SJM-19.

⁴⁵ See Ex. SDG&E-19-WP-R-Amended at 224.

⁴⁶ See generally, Appendix B attached hereto.

⁴⁷ SDG&E Response to ORA-SDG&E-DR-052-PM1 question 11, attached hereto as Appendix C.

growth. Furthermore, not all IT costs can be linked to specific business transactions and/or activity levels or forecasted using a simple arithmetic-based method.

Instead, IT forecasting and planning often consists of experienced IT professionals taking a wide variety of factors into consideration when developing an IT-related cost estimate, such as an understanding of industry technology trends, hardware and software computing capabilities, scope of specific operations, maintenance and support activities, evolving business priorities, changing regulatory landscape, and/or workforce skillset needs. This is typically done based on factors, such as the requirements of the project, staff's experience with implementing similar projects and discussions with impacted operating groups. This analysis is included as part of SDG&E's IT's project approval process and is taken into account when an assessment of a project for approval is performed.

ORA asserts that "SDG&E's reliance on 'professional judgment' and 'management experience' to forecast incremental labor expenses provides the Commission no analytical basis or data to evaluate or determine the reasonableness of SDG&E's request."⁴⁸ Nowhere in its testimony does ORA assert that the use of "professional judgment" and "management experience" is not a valid tool when forecasting labor expenses. In fact, SoCalGas' use of professional judgement and management experience is an acceptable forecast methodology in a GRC, according to the guidelines governing these proceedings.⁴⁹

Contrary to ORA's assertion, SDG&E provides sufficient support describing how it used its staff's judgement and experience, to the extent applicable, when developing its forecasted labor request. For example, in the SDG&E's Non-Shared Services workpapers, under the Category of Applications (attached hereto as Appendix D), SDG&E explains how it used its staff's judgement and experience when forecasting the need for incremental full-time equivalents ("FTEs") associated with several capital project implementations:⁵⁰

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

⁴⁸ Ex. ORA-15 at 12, lines 11-13.

⁴⁹ Rate Case Plan, as updated by D.07-07-004, at A31 (stating that "Where judgment is involved in setting an estimate level" the applicant must "explain why that particular level was adopted").

⁵⁰Ex. SDG&E-19-WP-R-Amended, at 9 of 621, Workpaper 1IT001.000 - IT Applications NSS, provided hereto as Appendix D.

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supporting additional production systems implemented via recently completed capital projects.

The two primary assumptions underlying this cost center's incremental labor forecast, the projected need for 7.9 incremental FTEs and the associated estimated non-labor costs of \$10,000 per employee, were based on professional judgement and management experience. Professional judgement and management experience were used to assess the impacts of the scope of work for several IT projects – Customer Relationship Management ("CRM"), Customer Energy Network ("CEN"), Smart Pricing Program ("SPP")⁵¹ – and the associated implications of these specific projects related to technical support activities⁵² within SDG&E's IT operating environment.

The use of professional judgement and management experience, as in this case to forecast FTEs, is typically done based on factors such as the requirements of the project, experience with implementing similar projects and discussions with impacted operating groups. This analysis is included as part of SDG&E's IT's project approval process and is taken into account when an assessment of the project for approval is performed. Controls and/or checkpoints of this type are methods implemented to ensure that IT costs are effectively managed across the division.

In summary, SDG&E provides a sufficient analytical basis and data to evaluate the reasonableness of SDG&E's use of professional judgment" and "management experience" to forecast incremental labor expenses.

C. Disputed Costs - O&M Non-Labor Forecasts

Table SJM-5 depicts the difference between SDG&E's Shared & Non-shared TY 2016 IT O&M Non-Labor forecast and the recommendations provided by ORA in this proceeding.

⁵¹ SPP is an internal SDG&E project name and acronym for the IT-related implementation activities associated with D.12-12-004 in SDG&E's Dynamic Pricing Application.

⁵² Technical support activities include installation, configuration, quality assurance, operation, monitoring and/or troubleshooting activities necessary to ensure hardware and software systems can be used in support of business functions.

Table SJM-5
Summary of SDG&E IT (Shared & Non-Shared) O&M Non-Labor

IT (SHARED & NON-SHARED) O&M NON LABOR - Constant 2013 (\$000)									
Base Year Test Year Change 2013 2016									
SDG&E	54,633	68,573	13,940						
ORA	54,633 ⁵³	62,563 ⁵⁴	7,905 ⁵⁵						

1. SDG&E provides sufficient details and analysis to support its incremental TY 2016 non-labor expenses request of \$13.9 million

ORA states that "SDG&E has provided no compelling analytical support for the forecast TY 2016 incremental expenses" for its non-labor O&M forecast. Contrary to ORA's assertion, my Amended Revised Testimony and discovery responses provide sufficient narrative and analytical support for SDG&E's incremental non-labor expenses request. In addition, SDG&E's Amended Revised Workpapers provide details of SDG&E's O&M non-labor expense forecast as summarized in my Amended Revised Testimony. Forecasted costs are categorized by shared and non-shared forecasts, and further into IT functional groupings (i.e., Applications, Infrastructure, Information Security and IT Support). The workpapers include additional details, such as cost center and activity descriptions, forecast methodology explanations, 2009 through 2013 recorded costs (labor and non-labor), year-to-year (2014-2016) line item incremental activities for 142 cost centers, 139 of which have Non-Labor components (shared and non-shared), and explanations for incremental changes for each of the forecast years.

SDG&E has provided additional analytical support for its requested non-labor increases to ORA during discovery. In one response, (see Appendix C), SDG&E provided ORA with additional information about its incremental combined labor and non-labor forecast.⁵⁸ This response provides a comprehensive overview of SDG&E's entire incremental non-labor request

⁵³ The ORA recommendation stated herein reflects any applicable impact of DP changes. See Appendix

The ORA recommendation stated herein reflects any applicable impact of DP changes. See Appendix Δ

⁵⁵ The ORA recommendation stated herein reflects any applicable impact of DP changes. See Appendix

⁵⁶ Ex. ORA-15 at 15, lines 5-7.

⁵⁷ See generally Ex. SDG&E-19-WP-R-Amended.

⁵⁸ SDG&E Response to ORA-SDG&E-DR-052-PM1 question 11, provided hereto as Appendix C.

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(without having to sift through all 621 pages of O&M workpapers) and documents all of SDG&E's estimating assumptions and calculations that were utilized for its forecast.

SDG&E also provided substantial analytical support for its requested TY 2016 incremental non-labor IT contract increases to ORA during discovery. For example, in one response, (provided hereto as Appendix E), SDG&E provided a consolidated view of all IT contract costs - including Information Security contracts - by Shared and Non-shared cost centers. As part of that same response, SDG&E provided a consolidated view of all IT contract costs - including Information Security contracts - by contract type (i.e., Hardware, Software, Services, Telecom and Other). And, in yet another response, SDG&E provided a comprehensive and detailed view of all individual software vendor contracts. These details include the following for each contract:

- Contract vendor Name (redacted to protect confidential information), but illustrative of the 175 distinct third party vendors,
- Contract Start Date and End Dates,
- Whether the contract was categorized as Shared or Non-Shared, and
- 2009 through 2013 historical costs.

In summary, contrary to ORA's assertion, SDG&E provides sufficient detail and analysis in support of its request of incremental TY 2016 labor expenses of \$13.9 million.

2. ORA's use of a five-year linear trend will not adequately fund IT contract expenditures during the TY 2016 forecast period

ORA recommends "using a five-year (2009-2013) linear trend to forecast TY 2016 'IT contract' expenses." ⁶² ORA's recommended methodology should be rejected and instead SDG&E's base year plus adjustments should be used. If ORA's recommendation of \$2.6 million for all IT contracts (excluding Information Security) were to be adopted, then SDG&E's \$11.6 million of IT contract expenditures during the forecast period could not be fully funded. ⁶³

⁵⁹ SDG&E Response to ORA-SDG&E-DR-069-PM1 question 2, Part e and f, provided hereto as Appendix E.

⁶⁰ SDG&E Response to ORA-SDG&E-DR-069-PM1 question 2, Part a through c, provided hereto as Appendix E.

⁶¹ SDG&E Response to ORA-SDG&E-DR-052-PM1 question 2, Part a thru e, provided hereto as Appendix F.

⁶² Ex. ORA-15 at 13, lines 8-12. Nowhere in its testimony does ORA recommend that the Commission deny a specific SDG&E IT contract cost.

⁶³ See Appendix A, section "Contract Non-Labor (Less Info. Security)".

SDG&E's current and expected future contractual obligations concern a wide array of IT basic

services provided to both SDG&E and SoCalGas business functions (i.e., Help Desk/End User

3 Desktop support, Mainframe support, Application Development and Maintenance support).

Insufficient and inadequate funding levels for SDG&E's current and expected future contractual

obligations could likely lead to reductions in internal service provided to IT's business clients,

and potentially outages and/or extended delays in addressing technical issues with SDG&E's

customer-facing applications (i.e., My Account).

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As I explained in my Amended Revised Testimony, SDG&E's forecast for IT contract expenditures consisted of two primary cost drivers – new IT contract expenditures and ongoing IT contract expenditures.⁶⁴ Hence, there are two reasons why adopting ORA's five year linear trend forecast methodology would lead to insufficient and inadequate funding levels.

a. New IT contract expenditures

First, SDG&E forecasts \$3.7 million for new IT contract expenditures in TY 2016 O&M Non-Labor using base year plus adjustments. Forecast expenditures are identified in my workpapers for specific Shared cost centers where new IT contract expenditures are anticipated.

65 Table SJM-6 depicts the specific Shared cost centers where new IT contract expenditures have been included in the forecast as incremental TY 2016 O&M Non-Labor IT contract costs.

 ${\bf Table~SJM-6}$ New IT Contract Expenditures in O&M Non-Labor Incremental Forecast 66

Workpaper/	Workpaper/Cost			2016
Cost Center	Center Title	Brief Description	Assumptions	\$('000)
2100-3091	SOFTWARE DEV -	Oracle database maintenance cost	Estimated contractual obligation to support Oracle database	1,000
	DATABASE	increases due to the current ULA	software	
	ADMINISTRATOR	expiration		
2100-3623	SHARED	GIS system software and data	Contractual Obligation to support GIS system software. These	2,314
	SOFTWARE	maintenance costs	costs were previously recorded in 2013 and forecasted in 2014-	
	DEVELOPMENT		2015 in Electric Operations.	
	CONTRACTS		-	
2100-3900	IT PORTFOLIO	Apptio business performance measurement	Annual contract cost.	357
	MANAGEMENT	system		
			Contract Obligation Total	3,671

⁶⁴ Ex. SDG&E-19-R-Amended, at SJM-13, lines 13-23.

⁶⁵ See generally Ex. SDG&E-19-WP-R-Amended.

⁶⁶ The information depicted in Table SJM-6 is an excerpt from Appendix C (SDG&E's response to ORA-SDG&E-DR-052-PM1, Question 11).

For example, the reason that there are new IT contract expenditures for GIS in Cost Center 2100-3623 depicted in Table SJM-6 is because this contract was previously funded outside of the IT Division (see Appendix G for additional details).⁶⁷

These are costs that have not been included in any historical IT expenditures as of base year 2013 because they have not yet been incurred by IT, and thus would not be reflected in any historical trend analysis, including a five-year linear trend. Thus, ORA's recommended five year linear trend forecast methodology does not take into consideration any new IT contract expenditures that had not already been included in IT historical non-labor costs during the 2009 through 2013 time period. Thus, ORA's methodology should not be adopted because it does not accurately reflect brand new IT contractual expenditures.

b. Other IT contract expenditures

Second, ORA's recommended five-year linear trend forecast methodology does not take into consideration any new IT O&M contract expenditures resulting from the implementation of capital projects. These types of costs would have been initially incurred as part of the capital project (i.e., as warranty costs) and thus would not already be included in IT O&M historical non-labor costs during the 2009 through 2013 time period.⁶⁸

In summary, SDG&E recommends that the Commission adopt SDG&E's TY 2016 O&M Non-Labor incremental forecast of \$6.1 million for IT contract expenditures using the base year with adjustments as reasonable and reject ORA's recommendation to use the 5-year forecast.

IV. REBUTTAL TO PARTIES' CAPITAL PROPOSALS

A. ORA

1. Undisputed Costs - 2015 Capital Expenditures

ORA agreed with SDG&E's 2015 capital expenditure forecast of \$62.1 million. The Commission should adopt SDG&E's forecast as reasonable.

2. Undisputed Costs - 2016 Capital Expenditures

ORA agreed with SDG&E's 2016 capital expenditure forecast of \$35.4 million. The Commission should adopt SDG&E's forecast as reasonable.

⁶⁷ SDG&E Response to ORA-SDG&E-DR-069-PM1, Question 7, provided hereto as Appendix G.

⁶⁸ Ex. SDG&E-19-R-Amended, at SJM-13, lines 14- 20.

B. UCAN

1. Disputed Costs – Capital Forecast For Bill Redesign

UCAN challenged SDG&E's IT Capital Funding request for the Bill Redesign Project. "UCAN is troubled by the lack of information provided on the proposed budget and SDG&E's inability to provide more a detailed breakdown of costs by activity. Without a more detailed forecast of bill redesign costs that justifies the need for \$3.3 million to complete this project, UCAN requests that funding be denied."⁶⁹

UCAN's recommendation should be rejected and the Commission should adopt SDG&E's capital forecast for the Bill Redesign project as reasonable. Please see the Rebuttal Testimony of SDG&E witness Mr. Brad Baugh (Ex. SDG&E-214) for additional details.

V. REBUTTAL TO ORA INFORMATION SECURITY PROPOSALS

A. Undisputed Costs - Labor O&M

ORA agreed with SDG&E's forecast for Information Security labor O&M.⁷⁰ The Commission should adopt SDG&E's TY 2016 incremental forecast of \$0.246 million for a total of \$2.869 million as reasonable.

B. Undisputed Costs - Non-Labor O&M

ORA agreed with SDG&E's forecast for Information Security non-labor O&M.⁷¹ The Commission should adopt SDG&E's TY 2016 incremental forecast of \$1.778 million for a total of \$2.899 million as reasonable.

C. Tracking of Cybersecurity and Risk Management expenditures

SDG&E respectfully recommends that the Commission decline ORA's suggestion⁷² to track and report expenses for Cybersecurity and Risk Management efforts in the next GRC. Cybersecurity and Risk Management efforts in the information technologies area are varied and address many different systems, applications, infrastructure components and network topology. Additionally, many efforts that provide risk management benefits also provide companion benefits, such as increased system reliability and robustness, which make the risk management aspect of those efforts difficult to unwind. Tracking and reporting is both administratively burdensome and imprecise, and may in and of itself be revelatory of the nature and types of

⁶⁹ Ex. UCAN (M. Fulmer) at 84, lines 15 - 20.

⁷⁰ Ex. ORA-15 at 1, lines 16 -19.

⁷¹ Ex. ORA-15 at 1. lines 29 - 31.

⁷² Ex. ORA-15 at18, lines 22 - 25.

1	measures undertaken which may unintentionally compromise the Cybersecurity and Risk
2	Management measures employed.
3	Furthermore, the Risk Decision, D.14-12-025, adopts a Risk Spending Accountability
4	Report, which will have the effect of tracking risk-related spending, including spending on
5	cybersecurity and risk management, in some fashion. SDG&E anticipates that the Safety Model
6	Assessment Proceedings ("SMAP") filings and subsequent Risk Assessment Mitigation Phase
7	("RAMP") filings will help shape the content of the Risk Spending Accountability Report.
8	SDG&E believes any discussions concerning the tracking of cybersecurity and risk management
9	costs are better suited to occur during the SMAP and RAMP proceedings, instead of the GRC.
10	VI. CONCLUSION
11	SDG&E has addressed the proposed recommendations presented by ORA and
12	demonstrated that ORA's proposals are not warranted. In summary, SDG&E has demonstrated
13	the following:
14	 SDG&E's TY 2016 O&M Labor forecast is reasonable;
15	 SDG&E's TY 2016 O&M Non-Labor forecast is reasonable;
16	SDG&E's Capital Expenditure forecasts are reasonable;
17 18	 SDG&E's Information Security O&M Labor and Non-Labor forecasts are reasonable; and
19 20	 Tracking of Cybersecurity and Risk Management expenditures should be addressed in the upcoming SMAP filings.
21	SDG&E has addressed the proposed recommendations presented by UCAN and
22	demonstrated that UCAN's proposal is not warranted. Accordingly, SDG&E's Capital forecast
23	for the Bill Redesign Project in 2015 and 2016 should be adopted by the Commission.
24	Accordingly, SDG&E's forecast for TY 2016 IT O&M Labor and Non-Labor expenses
25	and SDG&E's IT Capital Expenditure forecasts should be adopted by the Commission.
26	This concludes my prepared rebuttal testimony.

⁷³ See Rebuttal Testimony of SDG&E witness Mr. Brad Baugh (Ex. SDG&E-214) for additional details.

APPENDIX

TO

REBUTTAL TESTIMONY

OF STEPHEN J. MIKOVITS

ON BEHALF OF SDG&E

INFORMATION TECHNOLOGY

APPENDIX ATTACHMENTS

- A. Summary of SDG&E and ORA historical and forecast changes resulting from exclusion for Dynamic Pricing ("DP") Refundable Internal Orders.
- B. EX-SDG&E-19-WP-R-Amended Cost Center 2100-3095, pages 219 227
- C. SDG&E Response to ORA-SDG&E-DR-052-PM1-Q11
- D. EX- SDG&E-19-WP-R-Amended Workpaper 1IT001.000– IT Applications NSS, pages 5 13
- E. SDG&E Response to ORA-SDG&E-DR-069-PM1-Q2
- F. SDG&E Response to ORA-SDG&E-DR-052-PM1-Q2
- G. SDG&E Response to ORA-SDG&E-DR-069-PM1-Q7

APPENDIX A

Summary of SDG&E and ORA historical and forecast changes resulting from exclusion for Dynamic Pricing ("DP") Refundable Internal Orders.

Appendix A – Summary of SDG&E and ORA historical and forecast changes resulting from exclusion for Dynamic Pricing ("DP") Refundable Internal Orders
June 8, 2015

Information Security Labor	2009	2010	2011	2012	2013	2014	2015	2016	Change	Variance	Comments	
SDG&E	1,345	2,265	2,650	3,342	2,623	3,528	2,746	2,869	246	-	No Changes, ORA accepts SDG&E's proposal	
ORA Original	1,345	2,265	2,650	3,342	2,623	3,528	-	2,869	246		No Changes, ORA accepts SDG&E's proposal	
ORA Proposed Re-Calculated by SDG&E ¹	1,345	2,265	2,650	3,342	2,623	3,528		2,869	246		No Changes, ORA accepts SDG&E's proposal	
·					•		'				<u> </u>	
Other Labor ²	2009	2010	2011	2012	2013	2014	2015	2016	Change	Variance		
SDG&E	36,380	34,969	31.689	36,627	32,695	30,682	35,305	37,667	4,972	3,824		
ORA Original	36,380	35,158	31,741	36,627	32,708	30,761	-	33,898	1,190	-,-	6-year ave. of total labor, incl. Info Security	
ORA Proposed Re-Calculated by SDG&E ¹	36,380	34,969	31,689	36,627	32,695	30,682	-	33,843	1,148		6-year ave. of total labor, incl. Info Security	
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Total Labor	2009	2010	2011	2012	2013	2014	2015	2016	Change	Variance		
SDG&E	37,725	37,234	34,339	39,969	35,318	34,210	38,051	40,536	5,218	3,824		
ORA Original	37,725	37,423	34,391	39,969	35,331	34,289	-	36,767	1,436			
ORA Proposed Re-Calculated by SDG&E ¹	37,725	37,234	34,339	39,969	35,318	34,210	-	36,712	1,394			
								6-yr Ave	Change			
Original 6-year average calculation	37,725	37,423	34,391	39,969	35,331	34,289		36,521	1,190			
Revised 6-year average calculation	37,725	37,234	34,339	39,969	35,318	34,210		36,466	1,148			
Information Security Non-Labor ³	2009	2010	2011	2012	2013	2014	2015	2016	Change	Variance	Comments	
SDG&E	560	1,072	1,880	1,796	1,121	1,296	2,724	2,899	1,778	-	\$2k change in BY 2013	
ORA Original	560	1,072	1,882	1,796	1,123			2,901	1,778		\$2k change in BY 2014	
				4 700	1 1 2 1	-	-	2 000	1,778		\$2k change in BY 2015	
ORA Proposed Re-Calculated by SDG&E ¹	560	1,072	1,880	1,796	1,121	-	-	2,899	1,778		\$2K CHange III BT 2015	
ORA Proposed Re-Calculated by SDG&E*	560	1,072	1,880	1,796	1,121	-	-	2,899	1,778		\$2K Change in bt 2015	
		,		,	,	l			,			
Contract Non-Labor (Less Info. Security) ⁴	2009	2010	2011	2012	2013	2014	2015	2016	Change	Variance	Comments	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E	2009 41,391	2010 40,883	2011 40,484	2012 42,954	2013 45,556	l		2016 57,156	Change 11,600	Variance 9,034	Comments No Change	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original	2009 41,391 41,391	2010 40,883 40,883	2011 40,484 40,484	2012 42,954 42,954	2013 45,556 45,556	2014 44,800	2015	2016 57,156 48,122	Change 11,600 2,566		Comments No Change No Change	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E	2009 41,391	2010 40,883	2011 40,484	2012 42,954	2013 45,556	2014	2015	2016 57,156	Change 11,600		Comments No Change	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original	2009 41,391 41,391	2010 40,883 40,883	2011 40,484 40,484	2012 42,954 42,954	2013 45,556 45,556	2014 44,800	2015	2016 57,156 48,122	Change 11,600 2,566		Comments No Change No Change	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹	2009 41,391 41,391 41,391	2010 40,883 40,883 40,883	2011 40,484 40,484 40,484	2012 42,954 42,954 42,954	2013 45,556 45,556 45,556	2014 44,800	2015 48,704	2016 57,156 48,122 48,122	Change 11,600 2,566 2,566	9,034	Comments No Change No Change No Change	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Other Non-Labor ⁵	2009 41,391 41,391 41,391 2009	2010 40,883 40,883 40,883	2011 40,484 40,484 40,484 2011	2012 42,954 42,954 42,954 42,954	2013 45,556 45,556 45,556	2014 44,800	2015 48,704	2016 57,156 48,122 48,122 2016	Change 11,600 2,566 2,566 Change	9,034 Variance	Comments No Change No Change	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Other Non-Labor ⁵ SDG&E	2009 41,391 41,391 41,391 2009 11,382	2010 40,883 40,883 40,883 2010 11,203	2011 40,484 40,484 40,484 2011 10,353	2012 42,954 42,954 42,954 42,954 2012 16,446	2013 45,556 45,556 45,556 2013 7,956	2014 44,800	2015 48,704	2016 57,156 48,122 48,122 2016 8,518	Change 11,600 2,566 2,566 Change 562	9,034	Comments No Change No Change No Change Comments	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Other Non-Labor ⁵ SDG&E ORA Original	2009 41,391 41,391 41,391 2009 11,382 11,382	2010 40,883 40,883 40,883 2010 11,203 11,284	2011 40,484 40,484 40,484 2011 10,353 10,355	2012 42,954 42,954 42,954 42,954 2012 16,446 16,698	2013 45,556 45,556 45,556 2013 7,956 7,979	2014 44,800	2015 48,704	2016 57,156 48,122 48,122 2016 8,518 11,540	Change 11,600 2,566 2,566 Change 562 3,561	9,034 Variance	Comments No Change No Change No Change Comments 5-year average	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Other Non-Labor ⁵ SDG&E	2009 41,391 41,391 41,391 2009 11,382	2010 40,883 40,883 40,883 2010 11,203	2011 40,484 40,484 40,484 2011 10,353	2012 42,954 42,954 42,954 42,954 2012 16,446	2013 45,556 45,556 45,556 2013 7,956	2014 44,800 - 2014	2015 48,704	2016 57,156 48,122 48,122 2016 8,518	Change 11,600 2,566 2,566 Change 562	9,034 Variance	Comments No Change No Change No Change Comments	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Other Non-Labor ⁵ SDG&E ORA Original	2009 41,391 41,391 41,391 2009 11,382 11,382	2010 40,883 40,883 40,883 2010 11,203 11,284	2011 40,484 40,484 40,484 2011 10,353 10,355	2012 42,954 42,954 42,954 42,954 2012 16,446 16,698	2013 45,556 45,556 45,556 2013 7,956 7,979	2014 44,800 - 2014	2015 48,704	2016 57,156 48,122 48,122 2016 8,518 11,540	Change 11,600 2,566 2,566 Change 562 3,561	9,034 Variance	Comments No Change No Change No Change Comments 5-year average	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Other Non-Labor ⁵ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹	2009 41,391 41,391 41,391 2009 11,382 11,382 11,382	2010 40,883 40,883 40,883 2010 11,203 11,284 11,203	2011 40,484 40,484 40,484 2011 10,353 10,355 10,353	2012 42,954 42,954 42,954 2012 16,446 16,698 16,446	2013 45,556 45,556 45,556 45,556 2013 7,956 7,979 7,956	2014 44,800 - 2014 7,043	2015 48,704 - 2015 8,263	2016 57,156 48,122 48,122 2016 8,518 11,540 11,468	Change 11,600 2,566 2,566 Change 562 3,561 3,512	9,034 Variance (2,950)	Comments No Change No Change No Change Comments 5-year average 5-year average	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Other Non-Labor ⁵ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Total Non-Labor	2009 41,391 41,391 41,391 2009 11,382 11,382 11,382 2009	2010 40,883 40,883 40,883 2010 11,203 11,284 11,203	2011 40,484 40,484 40,484 2011 10,353 10,355 10,353	2012 42,954 42,954 42,954 42,954 2012 16,446 16,698 16,446	2013 45,556 45,556 45,556 2013 7,956 7,979 7,956	2014 44,800 - 2014 7,043	2015 48,704 - 2015 8,263	2016 57,156 48,122 48,122 2016 8,518 11,540 11,468	Change 11,600 2,566 2,566 Change 562 3,561 3,512 Change	9,034 Variance (2,950) Variance	Comments No Change No Change No Change Comments 5-year average	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Other Non-Labor ⁵ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Total Non-Labor SDG&E	2009 41,391 41,391 41,391 2009 11,382 11,382 11,382 2009 53,333	2010 40,883 40,883 40,883 2010 11,203 11,284 11,203 2010 53,158	2011 40,484 40,484 40,484 40,484 2011 10,353 10,355 10,353 2011 52,717	2012 42,954 42,954 42,954 42,954 2012 16,446 16,698 16,446 2012 61,196	2013 45,556 45,556 45,556 2013 7,956 7,979 7,956	2014 44,800 - 2014 7,043	2015 48,704 - 2015 8,263	2016 57,156 48,122 48,122 48,122 2016 8,518 11,540 11,468 2016 68,573	Change 11,600 2,566 2,566 Change 562 3,561 3,512 Change 13,940	9,034 Variance (2,950)	Comments No Change No Change No Change Comments 5-year average 5-year average	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Other Non-Labor ⁵ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Total Non-Labor SDG&E ORA Original	2009 41,391 41,391 41,391 2009 11,382 11,382 11,382 2009 53,333 53,333	2010 40,883 40,883 40,883 2010 11,203 11,284 11,203 2010 53,158 53,239	2011 40,484 40,484 40,484 40,484 2011 10,353 10,355 10,353 2011 52,717 52,721	2012 42,954 42,954 42,954 42,954 2012 16,446 16,698 16,446 2012 61,196 61,448	2013 45,556 45,556 45,556 2013 7,956 7,979 7,956 2013 54,633 54,658	2014 44,800 - 2014 7,043 2014 53,139	2015 48,704 - 2015 8,263 2015 59,691	2016 57,156 48,122 48,122 48,122 2016 8,518 11,540 11,468 2016 68,573 62,563	Change 11,600 2,566 2,566 Change 562 3,561 3,512 Change 13,940 7,905	9,034 Variance (2,950) Variance	Comments No Change No Change No Change Comments 5-year average 5-year average	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Other Non-Labor ⁵ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Total Non-Labor SDG&E	2009 41,391 41,391 41,391 2009 11,382 11,382 11,382 2009 53,333	2010 40,883 40,883 40,883 2010 11,203 11,284 11,203 2010 53,158	2011 40,484 40,484 40,484 40,484 2011 10,353 10,355 10,353 2011 52,717	2012 42,954 42,954 42,954 42,954 2012 16,446 16,698 16,446 2012 61,196	2013 45,556 45,556 45,556 2013 7,956 7,979 7,956	2014 44,800 - 2014 7,043	2015 48,704 - 2015 8,263	2016 57,156 48,122 48,122 48,122 2016 8,518 11,540 11,468 2016 68,573	Change 11,600 2,566 2,566 Change 562 3,561 3,512 Change 13,940	9,034 Variance (2,950) Variance	Comments No Change No Change No Change Comments 5-year average 5-year average	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Other Non-Labor ⁵ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Total Non-Labor SDG&E ORA Original	2009 41,391 41,391 41,391 2009 11,382 11,382 11,382 2009 53,333 53,333 53,333	2010 40,883 40,883 40,883 2010 11,203 11,284 11,203 2010 53,158 53,239	2011 40,484 40,484 40,484 40,484 2011 10,353 10,355 10,353 2011 52,717 52,721	2012 42,954 42,954 42,954 42,954 2012 16,446 16,698 16,446 2012 61,196 61,448	2013 45,556 45,556 45,556 2013 7,956 7,979 7,956 2013 54,633 54,658	2014 44,800 - 2014 7,043 2014 53,139	2015 48,704 - 2015 8,263 2015 59,691	2016 57,156 48,122 48,122 48,122 2016 8,518 11,540 11,468 2016 68,573 62,563	Change 11,600 2,566 2,566 Change 562 3,561 3,512 Change 13,940 7,905 7,856	9,034 Variance (2,950) Variance 6,084	Comments No Change No Change No Change Comments 5-year average 5-year average	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Other Non-Labor ⁵ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Total Non-Labor SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Total Labor & Non-Labor	2009 41,391 41,391 41,391 2009 11,382 11,382 11,382 2009 53,333 53,333 53,333	2010 40,883 40,883 40,883 2010 11,203 11,284 11,203 2010 53,158 53,239 53,158 2010	2011 40,484 40,484 40,484 2011 10,353 10,355 10,353 2011 52,717 52,721 52,717 2011	2012 42,954 42,954 42,954 42,954 2012 16,446 16,698 16,446 2012 61,196 61,196 61,196 2012	2013 45,556 45,556 45,556 2013 7,956 7,979 7,956 2013 54,633 54,633 54,633 54,633	2014 44,800 - - 2014 7,043 2014 53,139 - - -	2015 48,704 - - 2015 8,263 - 2015 59,691 - - -	2016 57,156 48,122 48,122 2016 8,518 11,540 11,468 2016 68,573 62,563 62,489 2016	Change 11,600 2,566 2,566 Change 562 3,561 3,512 Change 13,940 7,905 7,856 Change	9,034 Variance (2,950) Variance 6,084 Variance	Comments No Change No Change No Change Comments 5-year average 5-year average Comments	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Other Non-Labor ⁵ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Total Non-Labor SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹	2009 41,391 41,391 41,391 2009 11,382 11,382 11,382 2009 53,333 53,333 53,333	2010 40,883 40,883 40,883 2010 11,203 11,284 11,203 2010 53,158 53,239 53,158	2011 40,484 40,484 40,484 2011 10,353 10,355 10,353 2011 52,717 52,721 52,717	2012 42,954 42,954 42,954 42,954 2012 16,446 16,698 16,446 2012 61,196 61,448 61,196	2013 45,556 45,556 45,556 2013 7,956 7,979 7,956 2013 54,633 54,633 54,658 54,633 2013 89,951	2014 44,800 - 2014 7,043 2014 53,139 - -	2015 48,704 - 2015 8,263 2015 59,691 -	2016 57,156 48,122 48,122 2016 8,518 11,540 11,468 2016 68,573 62,563 62,489 2016 109,109	Change 11,600 2,566 2,566 Change 562 3,561 3,512 Change 13,940 7,905 7,856 Change 19,158	9,034 Variance (2,950) Variance 6,084	Comments No Change No Change No Change Comments 5-year average 5-year average Comments	
Contract Non-Labor (Less Info. Security) ⁴ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Other Non-Labor ⁵ SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Total Non-Labor SDG&E ORA Original ORA Proposed Re-Calculated by SDG&E ¹ Total Labor & Non-Labor SDG&E SDG&E Total Labor & Non-Labor SDG&E	2009 41,391 41,391 41,391 2009 11,382 11,382 11,382 11,382 2009 53,333 53,333 53,333 2009 91,058	2010 40,883 40,883 40,883 2010 11,203 11,284 11,203 2010 53,158 53,239 53,158 2010 90,392	2011 40,484 40,484 40,484 2011 10,353 10,355 10,353 2011 52,717 52,721 52,717 2011 87,056	2012 42,954 42,954 42,954 42,954 2012 16,446 16,698 16,446 2012 61,196 61,448 61,196 2012 101,165	2013 45,556 45,556 45,556 2013 7,956 7,979 7,956 2013 54,633 54,633 54,633 54,633	2014 44,800 - 2014 7,043 2014 53,139 - - 2014 87,349	2015 48,704 - - 2015 8,263 - 2015 59,691 - - -	2016 57,156 48,122 48,122 2016 8,518 11,540 11,468 2016 68,573 62,563 62,489 2016	Change 11,600 2,566 2,566 Change 562 3,561 3,512 Change 13,940 7,905 7,856 Change	9,034 Variance (2,950) Variance 6,084 Variance	Comments No Change No Change No Change Comments 5-year average 5-year average Comments	

Notes:

- 1. SDG&E re-calculated ORA's proposal using the revised historical expenses as per Exhibit SDG&E-19-R-Amended, May, 2015 and SDG&E-19-WP-R-Amended, May 2015
- 2. ORA uses a 6-year average
- 3. ORA accepts SDG&E's proposal
- 4. ORA uses a 5-year linear trend
- 5. ORA uses a 5-year average

APPENDIX B

EX- SDG&E-19-WP-R-Amended

Cost Center 2100-3095, pages 219 - 227

Beginning of Workpaper 2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: B. Infrastructure
Category-Sub 1. Infrastructure

Cost Center: 2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR

Activity Description:

This cost center includes the Director of IT Computing Infrastructure and his administrative support. Activities include department level management for plan, design, build, implementation and management of system-wide network and telecommunications infrastructure.

Forecast Explanations:

Labor - Base YR Rec

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

Non-Labor - Base YR Rec

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

NSE - Base YR Rec

NA

Summary of Results:

Years
Labor
Non-Labor
NSE
Total
FTE

	Adjι	ısted-Recor	costs Adjusted-Forecast				
2009	2010	2011	2012	2013	2014	2015	2016
159	177	96	-24	136	136	553	969
516	279	207	61	31	31	236	291
0	0	0	0	0	0	0	0
675	456	303	37	166	166	788	1,259
1.3	1.5	0.9	-0.8	1.0	1.0	5.2	9.4

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: B. Infrastructure
Category-Sub: 1. Infrastructure

Cost Center: 2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR

Cost Center Allocations (Incurred Costs):

Directly Retained
Directly Allocated
Subj. To % Alloc.
Total Incurred
% Allocation
Retained
SEU
CORP
Unreg

	2013 Adju	sted-Reco	rded	2014 Adjusted-Forecast					
Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
4	0	0	4	0.03	4	0	0	4	0.03
0	0	0	0	0.00	0	0	0	0	0.00
132	30	0	162	1.00	132	30	0	162	1.00
136	30	0	166	1.03	136	30	0	166	1.03
41.64%	41.64%				38.08%	38.08%			
54.70%	54.70%				58.32%	58.32%			
3.66%	3.66%				3.60%	3.60%			
0.00%	0.00%				0.00%	0.00%			

Directly Retained
Directly Allocated
Subj. To % Alloc.
Total Incurred
% Allocation
Retained
SEU
CORP
Unreg

	2015 Adju	sted-Fore	cast		2016 Adju	sted-Fore	cast		
Labor	Non-Labor	NSE	Total	FTE	Labor	Non-Labor	NSE	Total	FTE
4	0	0	4	0.03	4	0	0	4	0.03
0	0	0	0	0.00	0	0	0	0	0.00
549	235	0	784	5.20	965	290	0	1,255	9.40
553	235	0	788	5.23	969	290	0	1,259	9.43
38.08%	38.08%				38.08%	38.08%			
58.32%	58.32%				58.32%	58.32%			
3.60%	3.60%				3.60%	3.60%			
0.00%	0.00%				0.00%	0.00%			

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: B. Infrastructure
Category-Sub: 1. Infrastructure

Cost Center: 2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR

Cost Center Allocation Percentage Drivers/Methodology:

Cost Center Allocation Percentage for 2013

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

Cost Center Allocation Percentage for 2014

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

Cost Center Allocation Percentage for 2015

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

Cost Center Allocation Percentage for 2016

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

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: B. Infrastructure
Category-Sub: 1. Infrastructure

Cost Center: 2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR

Forecast Summary:

	In 2013 \$(000) Incurred Costs												
Forecast	t Method	Bas	se Foreca	st	Forec	ast Adjust	ments	Adjus	ted-Forec	ast			
Years		2014	2015	2016	2014	2015	2016	2014	2014 2015				
Labor	Base YR Rec	136	136	136	0	417	833	136	553	969			
Non-Labor	Base YR Rec	31	31	31	0	205	260	31	236	291			
NSE	Base YR Rec	0	0	0	0	0	0	0	0	0			
Tota	I	166	166	166	0	622	1,093	166	788	1,259			
FTE	Base YR Rec	1.0	1.0	1.0	0.0	4.2	8.4	1.0	5.2	9.4			

Forecast Adjustment Details:

Year/Expl.	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>	Adj Type
2014 Total	0	0	0	0	0.0	
2015	178	30	0	208	1.8	1-Sided Adj

2.25 new employees to support new IT initiatives across the company in 2015 and in 2016. \$100k average salary plus \$10k per employee in associated NL costs.

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

2015 239 25 0 264 2.4 1-Sided Adj

4.8 FTE s at \$100k per year and \$10k per employee in associated NL costs, split across 2015 and 2016. 5 telecom support technicians planned for SGCS deployment, based upon SCGS plan. Management estimate of 4 SAP/LINUX analysts to support the expanding SAP landscape, ECM system expansion, and CPD work completion.

2015 0 150 0 150 0.0 1-Sided Adj

Develop a five-year network strategy and migration plan to leverage emerging technologies for improved reliability and performance of our network environment. Management estimate for average consulting engagement (4-6 months) to analyze networking capabilities across 80 manned and unmanned sites.

2015 Total 417 205 0 622 4.2

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: B. Infrastructure
Category-Sub: 1. Infrastructure

Cost Center: 2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR

Year/Expl.	<u>Labor</u> <u>NLb</u>		<u>NSE</u>	<u>Total</u>	FTE Adj Type
2016	178	30	0	208	1.8 1-Sided Adj

2.25 new employees to support new IT initiatives across the company in 2015 and in 2016.
\$100k average salary plus \$10k per employee in associated NL costs.

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

2016 178 30 0 208 1.8 1-Sided Adj

2.25 new employees to support new IT initiatives across the company in 2015 and in 2016. \$100k average salary plus \$10k per employee in associated NL costs.

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

2016 477 50 0 527 4.8 1-Sided Adj

4.8 FTE s at \$100k per year and \$10k per employee in associated NL costs, split across 2015 and 2016. 5 telecom support technicians planned for SGCS deployment, based upon SCGS plan. Management estimate of 4 SAP/LINUX analysts to support the expanding SAP landscape, ECM system expansion, and CPD work completion.

2016 0 150 0 150 0.0 1-Sided Adj

Develop a five-year network strategy and migration plan to leverage emerging technologies for improved reliability and performance of our network environment. Management estimate for average consulting engagement (4-6 months) to analyze networking capabilities across 80 manned and unmanned sites.

2016 Total 833 260 0 1,093 8.4

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: B. Infrastructure
Category-Sub: 1. Infrastructure

Cost Center: 2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR

Determination of Adjusted-Recorded (Incurred Costs):

Determination of Adjusted	2009 (\$000)	2010 (\$000)	2011 (\$000)	2012 (\$000)	2013 (\$000)
Recorded (Nominal \$)*	· ,	,	· ,		
Labor	273	290	228	170	117
Non-Labor	474	264	202	66	31
NSE	0	0	0	0	0
Total	748	553	430	236	148
FTE	2.1	2.3	1.8	1.3	0.9
Adjustments (Nominal \$) **					
Labor	-147	-147	-147	-191	0
Non-Labor	-3	-3	-3	-6	0
NSE	0	0	0	0	0
Total	-150	-150	-150	-197	0
FTE	-1.0	-1.0	-1.0	-2.0	0.0
Recorded-Adjusted (Nomin	al \$)				
Labor	126	142	81	-21	117
Non-Labor	471	261	199	60	31
NSE	0	0	0	0	0
Total	597	403	280	39	148
FTE	1.1	1.3	0.8	-0.7	0.9
Vacation & Sick (Nominal \$	5)				
Labor	19	23	12	-3	19
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	19	23	12	-3	19
FTE	0.2	0.2	0.1	-0.1	0.2
Escalation to 2013\$					
Labor	14	12	4	0	0
Non-Labor	45	18	8	1	0
NSE	0	0	0	0	0
Total	58	30	11	1	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Const	ant 2013\$)				
Labor	159	177	96	-24	136
Non-Labor	516	279	207	61	31
NSE	0	0	0	0	0
Total	675	456	303	37	166
FTE	1.3	1.5	0.9	-0.8	1.1

^{*} After company-wide exclusions of Non-GRC costs

^{**} Refer to "Detail of Adjustments to Recorded" page for line item adjustments

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: B. Infrastructure
Category-Sub: 1. Infrastructure

Cost Center: 2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs										
Years	2009	2010	2011	2012	2013					
Labor	-147	-147	-147	-191	0					
Non-Labor	-3	-3	-3	-6	0					
NSE	0	0	0	0	0					
Total	-150	-150	-150	-197	0					
FTE	-1.0	-1.0	-1.0	-2.0	0.0					

Detail of Adjustments to Recorded:

Year/Expl.	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type	From CCtr	RefID					
2009	-147	-3	0	-1.0 CC	TR Transf	To 2200-2406.000	FFIGUERO20131					
IT Employee Transfer from SDGE to SCG as of 2013												
2009 Total	-147	-3	0	-1.0								
2010	-147	-3	0	-1.0 CC	TR Transf	To 2200-2406.000	FFIGUERO20131					
IT Employee	Transfer fro	m SDGE to SC	G as c	of 2013			031124948890					
2010 Total	-147	-3	0	-1.0								
2011	-147	-3	0	-1.0 CC	TR Transf	To 2200-2406.000	FFIGUERO20131					
IT Employee	Transfer fro	m SDGE to SC	G as c	of 2013			031125050277					
2011 Total	-147		0	-1.0								
2011 Total	-147	-3	U	-1.0								
2012	-191	-6	0	-2.0 CC	TR Transf	To 2200-2406.000	FFIGUERO20131					
IT Employee	Transfer fro	m SDGE to SC	G as c	of 2013			031125149367					
2012 Total	-191	-6	0	-2.0								

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: B. Infrastructure
Category-Sub: 1. Infrastructure

Cost Center: 2100-3095.000 - NETORK COMMUNICATION SERVICES DIRECTOR

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

APPENDIX C

SDG&E Responses to Data Requests

ORA Data Request: ORA-SDG&E-DR-052-PM1, Question 11

ORA DATA REQUEST ORA-SDG&E-DR-052-PM1 SDG&E 2016 GRC – A.14-11-003 SDG&E RESPONSE

DATE RECEIVED: JANUARY 26, 2015 DATE RESPONDED: FEBRUARY 9, 2015

- 11. Regarding SDG&E's response to SDG&E_Reponse_DEF-001-B, please update the Excel file to include the following information:
 - a. O&M decreases, including explanations for decreases.
 - b. Accounts where forecast has no change from recorded 2013 to TY2016.
 - c. A column with TY2016 total by account.

SDG&E Response 11:

Please see ORA-SDG&E-DR-052-PM1 Q11 Attachment.xlsx

SDG&E DR-052 Q.11 SDG&E Forecast Adjustments Provided in Response to DEF-002-PM1

Work paper	Category	Work paper Name	Description	2013 Recorded	2014 adj.	2015 adj.	2016 adj.	2016 Total	Assumptions	O&M Reductions
								(Item c)		(item a)
1IT001.000	Applications	IT Applications NSS	Cisco replacement Operating and Maintenance	12,993	200	300	2,000	14,993	Assumes 6 to 10 contractors would backfill for internal Subject Matter	
			Business Case Preparation.						Experts (SMEs) assigned to core project team. Assumes non-negotiated	d
									vendor pricing for 3rd party consultants to assist core project team.	
1IT001.000	Applications	IT Applications NSS	2014 Costs align with contractual forecasts, 2015-		479	646	827	827	2014 adjustment to current contractual obligations. 2015 & 2016	
			2016 escalated by 8% due to contracts or						escalation based upon a combination of historical averages, warranty	
			agreements coming off warranty and expanding support and services.						expirations, and business-driven growth.	
1IT001.000	Applications	IT Applications NSS	Backfills and IT associates and CPD support Powerka	z	-	347	694	694	6.3 FTEs at \$100k plus \$10k per employee in associated NL costs, added	1
			Support Systems Analyst						across 2015 and 2016	
1IT001.000	Applications	IT Applications NSS	Organic IT growth to support expanding programs,		-	143	286	286	2.25 incremental FTEs to support new IT initiatives across the company	
			applications, & infrastructure						in 2015 and in 2016. Assumes 56% O&C ratio and \$100k average salary	,
									plus \$10k per employee (2 employees) in associated NL costs.	
1IT002.000	Infrastructure	IT Infrastructure NSS		223	-	-	-	223	No change from 2013 recorded	
1IT003.000	IT Support	IT Support NSS	Full year salary for 2 employees and NonLabor	1,068	1,083	(417)	(417)	651	Capital Business Optimization Program - one-time increase of \$1,000k	Non-recurring consulting charges to support the capital business
			related to the capital business optimization progran	n					from base year in 2014, then decreases by \$500k from base year in	optimization group in 2014 result in a forecast reduction of 417k.
									2015 and 2016 for consulting services. Labor support - Program	
									started mid way through 2013, therefore incremental \$83k to cover	
									annual O&M spend for 2 employees, assuming an O&C ratio of 73%,	
									which continues into 2015 and 2016.	
1IT004.000	Information Security	IT Security NSS		159	-	-	-	159	No change from 2013 recorded	
				14,443	1,762	1,019	3,390	17,833		

Cost Center	Category Cost Center Name Description		Description	2013 Recorded 2014	adj. 2015 a	adj.	2016 adj.	2016 Total (Item c)	Assumptions	O&M Reductions (item a)
2100-3623	Applications	SHARED SOFTWARE DEVELOPMENT CONTRACTS	GIS system software and data maintenance costs	4,954	-	-	2,314	7,268	Contractual Obligation to support GIS system software. These costs were previously recorded in 2013 and forecasted in 2014-2015 in Electric Operations.	
2100-3623	Applications	SHARED SOFTWARE DEVELOPMENT CONTRACTS	IT Contract cost escalations or agreements coming off warranty	-	-	396	824	824	8% escalation in 2015 & 2016 based upon a combination of historical averages, warranty expirations, and business-driven growth.	
2100-3091	Applications	SOFTWARE DEV - DATABASE ADMINISTRATOR	Oracle database maintenance cost increases due to the current ULA expiration	4,368	-		1,000	5,368	Estimated contractual obligation to support Oracle database software	
2100-3091	Applications	SOFTWARE DEV - DATABASE ADMINISTRATOR	Transfer in from other cost center and IT Contract cost escalations or agreements coming off warranty and expanding support and services	, -	-	349	727	727	8% escalation in 2015 & 2016 based upon a combination of historical averages, warranty expirations, and business-driven growth.	
2100-3087	Applications	UTILITY OPS SW DEVELOP SERVICES DIRECTOR	1 admin support and 2 CRM 1 CEN and SPP roll off and multiple capital projects beginning in 2015 and continuing into 2016	1	-	434	867		7.9 O&M FTEs at \$100k per employee and \$10k per employee in associated NL costs (8 employees) split across 2015 and 2016. Support includes 1 admin, 2 CRM developers, 1 CEN developer, 3 SPP analysts, and an additional FTE supporting additional production systems implemented via recently completed capital projects.	
2100-3087	Applications	UTILITY OPS SW DEVELOP SERVICES DIRECTOR	Organic IT growth to support expanding programs, applications, & infrastructure.	-	-	211	422		2.9 incremental FTEs to support new IT initiatives across the company in 2015 and in 2016. Assumes 62% O&C ratio and \$100k average salary plus \$10k per employee (3 employees) in associated NL costs.	
2100-3102	Applications	INFRASTRUCTURE ENG & OPS DIRECTOR	increased capital work and 3 software developers hired between 2015-2016	287	-	214	429		3.9 incremental FTEs to support 3 software developers and 1 other FTE supporting recently completed capital projects in 2015 and in 2016. Assumes 97% O&C ratio and \$100k average salary plus \$10k per employee (4 employees) in associated NL costs.	
2100-3102	Applications	INFRASTRUCTURE ENG & OPS DIRECTOR	Organic IT growth to support expanding programs, applications, & infrastructure.	-	-	204	408		2.8 incremental FTEs to support new IT initiatives across the company in 2015 and in 2016. Assumes 66% O&C ratio and \$100k average salary plus \$10k per employee (3 employees at \$10k in 2015 and 2 employees at \$10k in 2016) in associated NL costs.	
2100-4001	Applications	Collaboration Services	Dedicated Microsoft engineering services.	479	-	175	175	654	Estimated annual cost of professional services contracted through Microsoft for implementing incremental SharePoint tools and features.	
2100-4001	Applications	Collaboration Services	1 employee from capital to operating expense	-	-	55	110		1 FTE at \$100k per employee and \$10k per employee in associated NL costs (1 employee) starting halfway through 2015 and into 2016 for production support of collaboration tools, including SharePoint.	

SDG&E DR-052 Q.11 SDG&E Forecast Adjustments Provided in Response to DEF-002-PM1

Work paper	Category	Work paper Name	Description	2013 Recorded	2014 adj.	2015 adj.	2016 adj.	2016 Total (Item c)	Assumptions	O&M Reductions (item a)
2100-4001	Applications	Collaboration Services	Organic IT growth to support expanding programs, applications, & infrastructure.	-	-	26	42		.15 new employees to support new IT initiatives across the company in 2014 and 2015. \$100k average salary plus \$10k per employee in	, , ,
									associated NL costs.	
2100-3781	Information Security	IS Contracts	Information Security - pre-paid warranty expirations	507	363	663	703	1,210	2014 adjustment to current contractual obligations. 2015 adds	
			(Contract Costs)						additional 300k in IT security contracts to cover prepaid warranties that are expiring, and 2016 adds another \$40k to cover additional prepaid	
									warranties that are expiring.	
2100-3781	Information Security	IS Contracts	Information Security - threat intelligence supporting	-	-	120	120	120	Assumes estimated annual cost for 3rd party vendor services averaging	
			risk mitigation and infrastructure protection	1					\$10K per week and \$25k for an annual maintenance agreement	
									resulting from the related project implementation.	
2100-3775	Information Security	SECURITY OPERATIONS	Information Security - Annual vulnerability and	1,429	-	350	400	1,829	Assumes estimated annual cost for 3rd party vendor services, based on	
			penetration testing assessments on SDG&E/SCG Cri	t					approximately 35 man weeks per year @ \$10K per week in 2015, and 40	
			Infrastructure - consulting						man weeks in 2016.	
2100-3775	Information Security	SECURITY OPERATIONS	Information Security - External forensics and	-	-	100	125	125	Assumes estimated annual cost for 3rd party vendor services, based on	
			investigation support - consulting						approximately 5 man weeks per year @ \$20K per week in 2015, and 6 man weeks in 2016.	
2100-3814	Information Security	SR DIRECTOR IT INFRASTRUCTURE	Organic IT growth to support expanding programs,	296	-	143	286	582	1.95 new employees to support new IT initiatives across the company in	
			applications, & infrastructure.						2015 and in 2016. \$100k average salary plus \$10k per employee in associated NL costs.	
2100-3763	Information Security	DIRECTOR - INFORMATION SECURITY	Information Security - new non-capital security	240	-	100	120	360	Assumes estimated annual cost for 3rd party vendor services.	
			technology innovation and product evaluations - consulting							
2100-3763	Information Security	DIRECTOR - INFORMATION SECURITY	Information Security - Specific InfoSec training	-		80	100	100	Management estimate to cover cost of training courses and attendance	
			courses and industry conferences.						at industry conferences for Information Security personnel, based on	
									security training for 13 people @ \$6K per person in 2015 and 16 people	
									in 2016. Per person costs are based on SANS Institute training costs @	
									avg \$5K per course combined with an avg of \$1K travel & expense.	
2100-3774	Information Security	SECURITY ENGINEERING	Information Security - New service offering based	875	-	120	120	995	Assumes estimated annual cost for 3rd party vendor services.	
			on cloud collaboration and data sharing services							
2100-3101	Information Security	INFORMATION SECURITY	Information Security - Support for increased	223	-	50	50	273	Assumes estimated annual cost for communication materials to be	
			security awareness events, communication, and						used to support security awareness and education.	
2100 0101			company training		4.0=0		2.100			
2100-3494	Infrastructure	DISTRIBUTED CONTRACTS	Transfer in from reorg IT Contract cost escalations	3,232	1,372	1,740	2,138	5,370	2014 adjustment to current contractual obligations. 2015 & 2016	
			or agreements coming off warranty and expanding support and services						escalation of 8% based upon a combination of historical averages,	
2100-3106	Infrastructure	NETWORK/TELECOM SERVICES - SDG&E	Transfer in from other cost center and IT Contract	5,842	566	1,079	1,633	7.475	warranty expirations, and business-driven growth. 2014 adjustment to current contractual obligations. 2015 & 2016	
2100 3100	iiii asti actare	NETWORKS TELECON SERVICES SEGRE	cost escalations or agreements coming off warranty	1	300	1,075	1,033	7,473	escalation of 8% based upon a combination of historical averages,	
			and expanding support and services						warranty expirations, and business-driven growth.	
2100-3495	Infrastructure	MAINFRAME CONTRACTS	Transfer in from other cost center and IT Contract	5,701	376	862	1,387	7,088	2014 adjustment to current contractual obligations. 2015 & 2016	
			cost escalations or agreements coming off warranty	/					escalation of 8% based upon a combination of historical averages,	
			and expanding support and services						warranty expirations, and business-driven growth.	
2100-3095	Infrastructure	NETORK COMMUNICATION SERVICES DIRECTOR	9 Telcom SGCS SAP LINUX resources split over 2014	- 166	-	264	527	693	4.8 FTE's at \$100k per year and \$10k per employee in associated NL	
2100-3095	Infrastructure	NETORK COMMUNICATION SERVICES DIRECTOR	2015 Organic IT growth to support expanding programs,	_		208	416	416	costs, split across 2015 and 2016 2.25 new employees to support new IT initiatives across the company in	
2100-3093	iiiiastiucture	INETORA COMMUNICATION SERVICES DIRECTOR	applications, & infrastructure.	1	_	200	410	410	2015 and in 2016. \$100k average salary plus \$10k per employee in	
			applications, & littlastructure.						associated NL costs.	
2100-3095	Infrastructure	NETORK COMMUNICATION SERVICES DIRECTOR	Network Strategy Development. Develop a five-	-	-	150	150	150	Management estimate for average consulting engagement (4-6	
			year network strategy and migration plan to						months) to analyze networking capabilities across 80 manned and	
			leverage emerging technologies for improved			1			unmanned sites.	
			reliability and performance of our network environment.							
2100-3900	Infrastructure	IT PORTFOLIO MANAGEMENT	Apptio business performance measurement system	95	357	357	357	452	Annual contract cost.	
2100-3900	Infrastructure	IT PORTFOLIO MANAGEMENT	Develop multi-year strategies for major application	-	-	250	250	250	Management estimate for various consulting engagements (2-6	
1			families			1			months) to analyze application roadmap options for potential capital	
									investments in major applications. These engagements range from \$30 to \$250k each.	
2100-3900	Infrastructure	IT PORTFOLIO MANAGEMENT	1 Analyst and 1 Admin between 2015 - 2016	-	-	48	96	96	.9 FTE at \$100k for an admin position and an IT analyst. Also \$10k in	
									associated NL costs for IT analyst only	

SDG&E DR-052 Q.11 SDG&E Forecast Adjustments Provided in Response to DEF-002-PM1

Work paper	Category	Work paper Name	Description	2013 Recorded	2014 adj.	2015 adj.	2016 adj.	2016 Total (Item c)	Assumptions	O&M Reductions (item a)
2100-3900	Infrastructure	IT PORTFOLIO MANAGEMENT	Organic IT growth to support expanding programs,	-	-	35	70		.6 new employees to support new IT initiatives across the company in	(item a)
			applications, & infrastructure.						2014 and 2015. \$100k average salary plus \$10k per employee in associated NL costs.	
2100-3698	Infrastructure	SERVICE DEVELOPMENT PROGRAM MANAGEMENT	Organic IT growth to support expanding programs,	(9)	-	133	266	257	1.5 new employees to support new IT initiatives across the company in	
			applications, & infrastructure.						2015 and in 2016. \$100k average salary plus \$10k per employee in associated NL costs.	
2100-3698	Infrastructure	SERVICE DEVELOPMENT PROGRAM MANAGEMENT	3 to support conf room and messaging and IT	-	-	106	212	212	1.9 FTE at \$100k per employee plus \$10k per employee in associated N	IL .
2100-3856	Infrastructure	VOICE LEASED CIRCUITS	communications hired between 2015 - 2016 IT Contract cost escalations or agreements coming	900	169	255	347	1 247	costs, split across 2015 and 2016 2014 adjustment to current contractual obligations. 2015 & 2016	
2100 3030	midstructure	VOICE EDISES CINCOTTS	off warranty		103	255	347	1,247	escalation of 8% based upon a combination of historical averages,	
2100-3859	Infrastructure	SDGE PERSONAL OWNED DEVICE ALLOWANCE	IT Contract cost escalations or agreements coming	327	201	243	289	616	warranty expirations, and business-driven growth. 2014 adjustment to current contractual obligations. 2015 & 2016	
2100 3033	imiastructure	SEGET ENSONAL OWNER BEVICE ALLOWANCE	off warranty	327	201	243	203	010	escalation of 8% based upon a combination of historical averages,	
2400 0207	1	TELECOM FIELD VOICE CDCF	Trackwalchalasar CO OF work France	2 247	270	270	270	2.507	warranty expirations, and business-driven growth.	
2100-0207	Infrastructure	TELECOM FIELD VOICE - SDGE	IT network telecom GO 95 work Ensure telecommunications cabling is in compliance and	2,317	270	270	270	2,587	Mandated costs, approximately \$15k per violation, and averaging 15-2l violations per year (18 x \$15k)	
			safe per General Order 95 to limit our exposure to							
			fines. Examples include poles, lines, underground facilities, and tower inspections.							
2100-3501	Infrastructure	IT NETWORK HARDWARE SOFTWARE MAINTENANCE	IT Contract cost escalations or agreements coming off warranty	1,066	9	95	188	1,254	2014 adjustment to current contractual obligations. 2015 & 2016 escalation based upon a combination of historical averages, warranty	
			on warranty						expirations, and business-driven growth.	
2100-3884	Infrastructure	MGD SVC VOICE ENTERP	IT Contract cost escalations or agreements coming	888		71	148	1,036	2014 adjustment to current contractual obligations. 2015 & 2016	
			off warranty						escalation of 8% based upon a combination of historical averages, warranty expirations, and business-driven growth.	
2100-3884	Infrastructure	MGD SVC VOICE ENTERP	Cost adjustments to 2014 department	-	2	2	2	2	department reorganizational changes \$2k NL adjustment	
2100-3855	Infrastructure	CLINT SERVICES MAINTENANCE & SUPPORT	reorganization IT Contract cost escalations or agreements coming	5,471	(957)	(596)	(206)	5 265	2014 adjustment to current contractual obligations. 2015 & 2016	In 2014, a combination of contract renegotiation resulting in
2100 3033	imiastructure	CEINT SERVICES MAINTENANCE & SOTT ORT	off warranty	3,471	(337)	(330)	(200)	3,203	escalation of 8% based upon a combination of historical averages,	lower rates and elimination of contracts through efficiencies
									warranty expirations, and business-driven growth.	caused decreases in the O&M forecast.
2100-3099	Infrastructure	DESKTOP HARDWARE	Cost adjustments to 2014 department	596	(408)	(393)	(377)	219	2014 adjustment to current contractual obligations. 2015 & 2016	In 2014, desktop support purchases and services were shifted
			reorganization						escalation of 8% based upon a combination of historical averages,	from O&M to Capital (Win7 project), resulting in a decrease in
2100-3103	Infrastructure	CSC CONTRACT SERVICES	IT Contract cost escalations or agreements coming	12,114	(3,210)	(2,498)	(1,729)	10,385	warranty expirations, and business-driven growth. 2014 adjustment to current contractual obligations. 2015 & 2016	O&M resource needs in 2014-2016 In 2013, a reconciliation of historical charges was completed
			off warranty						escalation of 8% based upon a combination of historical averages,	which resulted in a multi-year true-up of costs. This non-
									warranty expirations, and business-driven growth.	recurring cost was excluded from our forecast.
2100-3067	IT Miscellaneous	IT BUSINESS PLANNING & BUDGETS	1 MARP and Expanding employee training for 5	718	70	70	70	788	1FTE MARP (Managerial Accounting Rotation Program) and \$20k in no	
			people per year						labor to expand training for 5 employees within the Business Planning Budgets department (\$4k per employee)	&
									budgets department (34k per employee)	
2100-3807	IT Miscellaneous	ENTERPRISE FINANCIAL & OPS SOLUTION	CPD program cost adjustments moving to other cos	t 568	(35)	(35)	(35)	533	Reductions due to CPD cost center consolidation (see SCG WP-18,	This "reduction" in costs for SDG&E Non-Shared IT Support is
			centers						workgroup 2IT003)	attributed to the re-distribution of CPD costs across IT and business unit cost centers. As described in Mr. Olmsted's
										testimony (Ex. SCG-18, page CRO-14) and included here for
										convenience, "Through 2013, CPD O&M costs were recorded to SoCalGas IT cost centers. To provide better transparency to the
										ownership of the costs, adjustments were made to align IT-
										related costs to IT cost centers and align business-related costs
										to Gas Distribution cost centers. In order to achieve this cost realignment, historical costs through 2013 were transferred to
										Gas Distribution. This resulted in historical IT costs, including for
										base year 2013, essentially being zeroed out. Forecasts were
										then added back to IT cost centers that were in-line with the original plans to address IT-related CPD work. Business costs
										related to CPD are represented in workpapers sponsored by
										SoCalGas Gas Distribution witness Gina Orozco-Mejia (Ex. SCG- 04-WP)."
										V- W1).
2100-3064 2100-3071	IT Miscellaneous Applications	VP INFORMATION TECHN SAP ACCOUNTING & FIN		752 1294		-	-		No change from 2013 recorded (item b) No change from 2013 recorded (item b)	
2100-3071	Applications	SUPPLY CHAIN & LOGIS		909		-	-		No change from 2013 recorded (item b)	
2100-3073	Applications	ENTERPRISE INTEGRATI		946		-	-		No change from 2013 recorded (item b)	
2100-3074	Applications	SSDS PROJECT OFFICE	<u> </u>	290	_	-	-	290	No change from 2013 recorded (item b)	

SDG&E DR-052 Q.11
SDG&E Forecast Adjustments Provided in Response to DEF-002-PM1

Total SDG&E

Vork paper	Category	Work paper Name	Description	2013 Recorded 2014 adj.	2015 adj.	2016 adj.	2016 Total (Item c)	Assumptions	O&M Reductions (item a)
100-3076	Applications	CORPORATE SYSTEMS		1324 -	_	_		No change from 2013 recorded (item b)	(item a)
100-3079	Applications	SCG CUSTOMER CARE PR		62 -	_	_		No change from 2013 recorded (item b)	
100-3080	Applications	MAJOR MARKETS & CUST		19 -	_	_		No change from 2013 recorded (item b)	
100-3082	Applications	SCG CUSTOMER INFORMA		51 -	_	_		No change from 2013 recorded (item b)	
100-3083	Applications	SCG CUSTOMER FIELD		-2 -	_	_		No change from 2013 recorded (item b)	
100-3086	Applications	CUSTOMER ASSISTANCE		853 -	_	_	. ,	No change from 2013 recorded (item b)	
100-3088	Applications	SOFTWARE DEV - WORK		188 -	_	_		No change from 2013 recorded (item b)	
100-3089	Applications	BUSINESS INTELLIGENC		993 -	_	_		No change from 2013 recorded (item b)	
100-3089	Applications	SOFTWARE DEV - WORK		1016 -	-	-		No change from 2013 recorded (item b)	
100-3095	Infrastructure	NETWORK ENGINEERING-		1010		_		No change from 2013 recorded (item b)	
		CLIENT TECHNOLOGY &		852 -	-			No change from 2013 recorded (item b)	
.00-3097	Infrastructure Infrastructure	ENTERPRISE SERVER GR						No change from 2013 recorded (item b) No change from 2013 recorded (item b)	
.00-3098				34 - 1265 -	-	-		, ,	
00-3100	Infrastructure	MIDDLEWARE AND INTER			-	-		No change from 2013 recorded (item b)	
00-3105	Infrastructure	STORAGE AND ADMINIS		14 -	-	-		No change from 2013 recorded (item b)	
.00-3107	Infrastructure	ENTERPRISE OPERATION		1132 -	-	-		No change from 2013 recorded (item b)	
.00-3317	IT Miscellaneous	IT ACCOUNT MANAGEMEN		604 -	-	-		No change from 2013 recorded (item b)	
00-3334	Infrastructure	SERVER MANAGEMENT		838 -	-	-		No change from 2013 recorded (item b)	
00-3335	Infrastructure	UNIX SERVER GROUP		51 -	-	-		No change from 2013 recorded (item b)	
00-3498	Infrastructure	INFRASTRUCTURE PROGR		298 -	-	-		No change from 2013 recorded (item b)	
00-3500	Infrastructure	IT NETWORK FIELD - L		319 -	-	-		No change from 2013 recorded (item b)	
00-3502	Infrastructure	ENTERPRISE COMMAND C		1909 -	-	-		No change from 2013 recorded (item b)	
00-3544	Infrastructure	WINTEL SERVER GROUP		38 -	-	-		No change from 2013 recorded (item b)	
00-3548	Infrastructure	ENT SVC MGT & HELP D		236 -	-	-	236	No change from 2013 recorded (item b)	
.00-3682	Infrastructure	PROJECT MANAGEMENT O		321 -	-	-	321	No change from 2013 recorded (item b)	
.00-3683	Infrastructure	PROJECT IMPROVEMENT		1094 -	-	-	1,094	No change from 2013 recorded (item b)	
100-3684	Infrastructure	SERVICE DELIVERY - N		422 -	-	-	422	No change from 2013 recorded (item b)	
.00-3699	IT Miscellaneous	SOLUTIONS ARCHITECTU		299 -	-	-	299	No change from 2013 recorded (item b)	
.00-3713	IT Miscellaneous	OPEX FIELD FORCE PRO		536 -	-	-	536	No change from 2013 recorded (item b)	
00-3733	IT Miscellaneous	SVP & CITO		638 -	-	-	638	No change from 2013 recorded (item b)	
00-3754	Applications	CUSTOMER CARE PROJEC		6 -	-	-		No change from 2013 recorded (item b)	
00-3762	IT Miscellaneous	IT OPEX ENTERPRISE T		174 -	-	-	174	No change from 2013 recorded (item b)	
00-3817	Applications	INFO SECURITY PROG		18 -	-	-		No change from 2013 recorded (item b)	
00-3824	Infrastructure	INFRAST PRGRM OFFICE		217 -	-	-		No change from 2013 recorded (item b)	
00-3835	Infrastructure	SDGE NETWRK INTEGRA		17 -	_	-		No change from 2013 recorded (item b)	
00-3842	IT Miscellaneous	IT ASSOCIATE PROGRAM		1019 -	_	_		No change from 2013 recorded (item b)	
00-3843	Infrastructure	SCG NETWORK INTEGRAT		1 -	_	-		No change from 2013 recorded (item b)	
00-3846	Applications	SCG APPS MAJOR MARKE		6 -	_	_		No change from 2013 recorded (item b)	
00-3848	Applications	CUSTOMER ANALYTICS S		130 -	_	_		No change from 2013 recorded (item b)	
.00-3848	Infrastructure	VOICE ENTERP SUPPORT		430 -		_		No change from 2013 recorded (item b)	
.00-3888	Infrastructure	CLIENT TECH SVCS		326 -				No change from 2013 recorded (item b)	
100-3888	Applications	2100-3905		18 -	-	-		No change from 2013 recorded (item b)	
.00-3905	Infrastructure	IT Communications		91 -	-	-		No change from 2013 recorded (item b) No change from 2013 recorded (item b)	
100-4003	mmastructure	I Communications		76,102 (855)		15,811	91.913		

90,545

907

7,525

19,201

109,746

APPENDIX D

EX- SDG&E-19-WP-R-Amended

Workpaper 1IT001.000 – IT Applications NSS, pages 5 - 13

Beginning of Workpaper 1IT001.000 - IT Applications NSS

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: A. Applications
Category-Sub 1. Applications

Workpaper: 1IT001.000 - IT Applications NSS

Activity Description:

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

Forecast Explanations:

Labor - Base YR Rec

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

Non-Labor - Base YR Rec

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

NSE - Base YR Rec

NA

Summary of Results:

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

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: A. Applications
Category-Sub: 1. Applications

Workpaper: 1IT001.000 - IT Applications NSS

Forecast Summary:

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

Forecast Adjustment Details:

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

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

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

2014 0 479 0 479 0.0 1-Sided Adj

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

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

2014 Total	100	579	0	679	1.0		
2015	123	20	0	143	1.2	1-Sided Adj	

2.25 incremental FTEs to support new IT initiatives across the company in 2015 and in 2016. Assumes 56% O&C ratio and \$100k average salary plus \$10k per employee (2 employees) in associated NL costs.

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

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: A. Applications
Category-Sub: 1. Applications

Workpaper: 1IT001.000 - IT Applications NSS

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

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

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

2015 200 100 0 300 2.0 1-Sided Adj

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

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

2015 0 646 0 646 0.0 1-Sided Adj

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

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

2015 394 40 0 434 3.9 1-Sided Adj

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

2015 Total	1,034	836	0	1,870	10.3	
2016	123	20	0	143	1.2 1-Sid	ded Adj

INFORMATION TECHNOLOGY Area: Stephen J. Mikovits Witness: Category: A. Applications 1. Applications Category-Sub: 1IT001.000 - IT Applications NSS Workpaper: Year/Expl. **NLbr** Labor NSE **Total** FTE Adj Type 2.25 incremental FTEs to support new IT initiatives across the company in 2015 and in 2016. Assumes 56% O&C ratio and \$100k average salary plus \$10k per employee (2 employees) in associated NL costs. Incremental Employee requirements were estimated to be 15 headcount across the IT DIvision in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year. 2016 634 60 0 694 1-Sided Adj 6.3 FTEs at \$100k plus \$10k per employee in associated NL costs, added across 2015 and 2016. 4 FTEs for primary & secondary support positions for CPD and Powerworks, (2 headcount each, 100% O&C labor ratio). The remaining 2.3 FTEs are estimated to support the expansion of the IT Associate program (6 headcount, 38% O&C labor ratio). 2016 123 20 0 143 1.2 1-Sided Adj 2.25 incremental FTEs to support new IT initiatives across the company in 2015 and in 2016. Assumes 56% O&C ratio and \$100k average salary plus \$10k per employee (2 employees) in associated NL costs. Incremental Employee requirements were estimated to be 15 headcount across the IT DIvision in 2015 and 2016. These 15 added employees are needed to support business growth and client IT support needs. The 15 headcount were prorated based upon 2013 spend by individual IT department and average O&C labor ratio for the base year. 2016 400 1,600 2,000 1-Sided Adj Operating and Maintenance expenses related to CISCO replacement Business Case Preparation. Assumes 6 to 10 contractors would backfill for internal Subject Matter Experts (SMEs) assigned to core project team. Assumes non-negotiated vendor pricing for 3rd party consultants to assist core project team. 2016 0 827 0 827 1-Sided Adj 0.0 2014 adjustment to current contractual obligations. 2015 & 2016 escalation based upon a combination of historical averages, warranty expirations, and business-driven growth. IT contract costs, including maintenance agreements, network services, client support

Note: Totals may include rounding differences.

services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiriation, and vendor cost escalations.

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: A. Applications
Category-Sub: 1. Applications

Workpaper: 1IT001.000 - IT Applications NSS

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

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

2016 Total 2,067 2,607 0 4,674 20.6

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: A. Applications
Category-Sub: 1. Applications

Workpaper: 1IT001.000 - IT Applications NSS

Determination of Adjusted-Recorded (Incurred Costs):

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

^{*} After company-wide exclusions of Non-GRC costs

^{**} Refer to "Detail of Adjustments to Recorded" page for line item adjustments

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: A. Applications
Category-Sub: 1. Applications

Workpaper: 1IT001.000 - IT Applications NSS

Summary of Adjustments to Recorded:

In Nominal \$ (000) Incurred Costs											
Years 2009 2010 2011 2012 2013											
Labor	269	255	-139	-75	-20						
Non-Labor	5	7	3	-220	-492						
NSE	0	0	0	0	0						
Total	274	262	-136	-295	-512						
FTE	2.9	2.5	-1.5	-1.3	-0.2						

Detail of Adjustments to Recorded:

Year/Expl.	<u>Labor</u>	<u>NLbr</u>	NSE	FTE	Adj Type	From CCtr	RefID
2009	304	3	0	3.8 CC	TR Transf	From 2100-0019.000	CSCHRAMM2013 1107221220710
cost center 2	100-0019 in Work Paper	Work Paper	Group 10	00007 CC	C Support to	oort function from cost center gn function where	1107221220110
2009	232	5	0	1.8 CC	TR Transf	From 2100-3611.000	CSCHRAMM2013 1107221601690
cost center 2	100-0019 in Work Paper	Work Paper	Group 10	00007 CC	C Support to	ager function from cost center gn function where	
2009	-35	-3	0	-0.4 1-S	Sided Adj	N/A	LBROUGH201311
IT employee	transfer from	SDGE to So	CG, 2IT0	01			05164557723
2009	-232	0	0	-2.3 1-S	Sided Adj	N/A	LBROUGH201312
Transfer of 4 \$232k	employees t	o SCG Gas	Ops, Wk	paper 2SP	000. 4 x 100	< x 58% O&M =	04104017257
2009 Total	269	5	0	2.9			

Transfer labor, FTE, and non-labor costs associated with IT Tech Support function from cost center 2100-0019 in Work Paper Group 100007 CCC Support to cost center 2100-0642 in Work Paper Group 1IT001 Information Technology to align function where activity resides.

0

12

Note: Totals may include rounding differences.

298

2010

3.5 CCTR Transf

From 2100-0019.000

CSCHRAMM2013 1107221328560

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: A. Applications
Category-Sub: 1. Applications

Workpaper: 1IT001.000 - IT Applications NSS

Year/Expl.	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	FTE	Adj Type	From CCtr	RefID				
2010	226	6	0	1.7 (CCTR Transf	From 2100-3611.000	CSCHRAMM2013 1107221705560				
cost cente	er 2100-0019 ir 2 in Work Pape	n Work Paper	Group 1C	00007	CCC Support to	ager function from cost center ign function where	110/221/03300				
2010	-35	-3	0	-0.4	1-Sided Adj	N/A	LBROUGH201311				
IT employ	vee transfer fro	m SDGE to S	CG, 2IT00	01			05164645730				
2010	-232	0	0	-2.3	1-Sided Adj	N/A	LBROUGH201312				
Transfer of \$232k	of 4 employees	to SCG Gas	Ops, Wkp	aper 2	SP000. 4 x 100	0k x 58% O&M =	04104051257				
2010	-2	-8	0	0.0	1-Sided Adj	N/A	TP1JMY20150526				
Exclusion	for Dynamic P	ricing Refund	dable IOs p	oer filin	g in Application	10-07-009.	131659140				
2010 Total	255	7	0	2.5							
2011	163	7	0	17 (CCTR Transf	From 2100-0019.000	CSCHRAMM2013				
		·					1107221427490				
cost cente	er 2100-0019 ir 2 in Work Pape	n Work Paper	Group 1C	00007	CCC Support to	port function from cost center ign function where					
2011	6	0.506	0	0.1 (CCTR Transf	From 2100-3611.000	CSCHRAMM2013				
cost cente	er 2100-0019 ir 2 in Work Pape	n Work Paper	Group 1C	00007	CCC Support to	nager function from cost center ign function where	1107221831967				
2011	-35	-3	0	-0.4	1-Sided Adj	N/A	LBROUGH201311 05164723943				
IT employee transfer from SDGE to SCG, 2IT001											
2011	-232	0	0	-2.3	1-Sided Adj	N/A	LBROUGH201312				
041041 Transfer of 4 employees to SCG Gas Ops, Wkpaper 2SP000. 4 x 100k x 58% O&M = \$232k											
2011	-42	-2	0	-0.6	1-Sided Adj	N/A	TP1JMY20150526				
Exclusion	for Dynamic P	ricing Refund	dable IOs p	oer filin	g in Application	10-07-009.	132906030				

Area: INFORMATION TECHNOLOGY

Witness: Stephen J. Mikovits
Category: A. Applications
Category-Sub: 1. Applications

Workpaper: 1IT001.000 - IT Applications NSS

Year/Expl.	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>FTE</u>	Adj Type	From CCtr	RefID
2011 Total	-139	3	0	-1.5			
2012	-35	-3	0	-0.4	1-Sided Adj	N/A	LBROUGH201311
IT employe	ee transfer fro	m SDGE to S	SCG, 2ITO	001			05164848587
2012	-40	-3	0	-0.9	1-Sided Adj	N/A	LBROUGH201311
IT employe	ee transfer fro	m SDGE to S	SCG, 220	0-2496			05165048623
2012	0	-214	0	0.0	1-Sided Adj	N/A	TP1JMY20150526
Exclusion	for Dvnamic P	ricina Refun	dable IOs	per filin	g in Application	10-07-009.	133200817
2012 Total	-75	-220	0	-1.3	9 +		
2012 10tai	-13	-220	· ·	-1.5			
			_				
2013	-20	-492	0	-0.2	1-Sided Adj	N/A	TP1JMY20150526 133426037
Exclusion	for Dynamic P	ricing Refund	dable IOs	per filin	g in Application	10-07-009.	100720001
2013 Total	-20	-492	0	-0.2			

APPENDIX E

SDG&E Responses to Data Requests

ORA Data Request: ORA-SDG&E-DR-069-PM1, Question 2

DATE RECEIVED: FEBRUARY 20, 2015 DATE RESPONDED: MARCH 9, 2015

- 2. Regarding the statement used throughout SDG&E-19-WP "2014 adjustment to current contractual obligations. 2015 & 2016 escalation based upon a combination of historical averages, warranty expirations, and business-driven growth. IT contract costs, including maintenance agreements, network services, client support services, and other contracts are anticipated to escalate by approximately 8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations." Based on the above statement please provide the following (for each O&M expense historical and forecast please provide responses in nominal and base year 2013 \$):
 - a. Yearly 2009-2013 recorded and 2014-2016 forecast O&M expenses for telecommunications contracts.
 - b. Yearly 2009-2013 recorded and 2014-2016 forecast O&M expenses for service contracts.
 - c. Recorded 2009-2013 and forecast 2014-2017 O&M expenses not included in responses to data requests ORA-SDG&E-027-PM1, Q. 2, SDG&E-052-PM1, Q.2, or items a and b above included in the "IT contract costs" forecast.
 - d. Please provide in Excel format all calculations SDG&E used in determining the forecast "8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations."
 - e. Forecast O&M expenses for "IT contract costs" by cost center yearly 2014-2016 delineated by labor and non-labor.
 - f. Recorded O&M expenses for "IT contract costs" by cost center yearly 2009-2013 delineated by labor and non-labor.
 - g. Supporting documentation for each instance SDG&E used "2014 adjustment to current contractual obligations" in development of the O&M expense forecasts.
 - h. Identify if the "contractual obligation to support Oracle database software" (data request ORA-SDG&E-052-PM1, Q.11 Cost Center 2100-3091) is recorded as "IT contract costs." If the answer is yes, please state so, if the answer is no, explain why these costs are not "IT contract costs."
 - i. Identify if the "contractual obligation to support GIS system software" (data request ORA-SDG&E-052-PM1, Q.11 Cost Center 2100-3623) is recorded as "IT contract costs." If the answer is yes, please state so, if the answer is no, explain why these costs are not "IT contract costs."
 - j. Identify if the "professional services contracted through Microsoft for implementing incremental SharePoint tools and features" (data request ORA-SDG&E-052-PM1, Q.11 Cost Center 2100-4001) are recorded as "IT contract costs." If the answer is yes, please state so, if the answer is no, explain why these costs are not "IT contract costs."
 - k. Identify if the "Information Security pre-paid warranty expirations (Contract Costs)" (data request ORA-SDG&E-052-PM1, Q.11 Cost Center 2100-3781) are recorded as "IT contract costs." If the answer is yes, please state so, if the answer is no, explain why these costs are not "IT contract costs."

DATE RECEIVED: FEBRUARY 20, 2015 DATE RESPONDED: MARCH 9, 2015

Question 2 (Continued)

- Identify if the "Information Security Annual vulnerability and penetration testing
 assessments on SDG&E/SCG Crit Infrastructure consulting" (data request ORASDG&E-052-PM1, Q.11 Cost Center 2100-3781) are recorded as "IT contract costs."
 If the answer is yes, please state so, if the answer is no, explain why these costs are
 not "IT contract costs
- m. Identify if "Apptio business performance measurement system" (data request ORA-SDG&E-052-PM1, Q.11 Cost Center 2100-3900) is recorded as "IT contract costs." If the answer is yes, please state so, if the answer is no, explain why these costs are not "IT contract costs."

SDG&E Response 02:

Questions 2.a – 2.c Please see Attachment ORA-SDG&E-DR-069-PM1 Q2a.

Question 2.d - Please see Attachment ORA-SDG&E-DR-069-PM1 Q2d.

Question 2.e – 2.f Please see Attachment ORA-SDGE-DR-069-PM1 Q2.e_f.

Question 2.g – SDG&E used an iterative process to review specific contract cost information and obtain management input regarding the most accurate 2014 forecast assumptions at that point in time (Q4, 2013). Intermediate versions of those documents are typically not retained and therefore supporting documentation for each instance where SDG&E used 2014 adjustments to current contractual obligations are not available. This process resulted in a forecasted reduction of \$1.2 million (3%) as compared to Base Year 2013 actuals.

Questions 2.h – Yes, "contractual obligation to support Oracle database software" (data request ORA-SDG&E-052-PM1, Q.11 Cost Center 2100-3091) is recorded as "IT contract costs."

Questions 2.i - Yes, "Contractual obligation to support GIS system software" (data request ORA-SDG&E-052-PM1, Q.11 Cost Center 2100-3623) is recorded as "IT contract costs."

Questions 2.j - Yes, "Professional services contracted through Microsoft for implementing incremental SharePoint tools and features" (data request ORA-SDG&E-052-PM1, Q.11 Cost Center 2100-4001) are recorded as "IT contract costs."

Questions 2.k- Yes, "Information Security – pre-paid warranty expirations (Contract Costs)" (data request ORA-SDG&E-052-PM1, Q.11 Cost Center 2100-3781) are recorded as "IT contract costs."

DATE RECEIVED: FEBRUARY 20, 2015 DATE RESPONDED: MARCH 9, 2015

SDG&E Response 02 Continued:

Questions 2.1 - Yes, "Information Security – Annual vulnerability and penetration testing assessments on SDG&E/SCG Crit Infrastructure – consulting" (data request ORA-SDG&E-052-PM1, Q.11 Cost Center 2100-3781) are recorded as "IT contract costs."

Questions 2.m - Yes, "Apptio business performance measurement system" (data request ORA-SDG&E-052-PM1, Q.11 Cost Center 2100-3900) is recorded as "IT contract costs."

ORA-SDG&E-DR-069-PM1 Q2 Amended Responses Questions 2.a - 2.c 3/12/2015

There are no labor costs associated with any of the contracts listed below.

			Unadjus	ted Historical Ch	arges				
Contract Type	Question #	2009	2010	2011	2012	2013	2014	2015	2016
Hardware	2.c	5,752,677	4,826,821	5,608,555	4,735,128	4,271,907			
Other	2.c	437,335	342,076	687,114	453,278	276,756			
Services	2.b	10,412,040	10,035,864	10,183,389	10,160,735	13,725,344			
Software	(see note)	15,653,252	17,622,218	17,218,817	17,963,863	20,890,039			
Telecom	2.a	5,098,412	5,403,694	5,598,666	6,768,521	6,895,839			
		37,353,716	38,230,673 39,296,541 40,081,525		40,081,525	46,059,886	45,482	49,729	58,530

Note:

Software costs provided in DR 52 were from a different SAP database and are slightly different due to FERC ET and other adjustments. For convenience, below is the difference between the prior submission for DR 52 and what is identified above:

_	2009	2010	2011	2012	2013
Current DR (69)	15,653,252	17,622,218	17,218,817	17,963,863	20,890,039
Prior DR (52)	15,836,286	17,750,080	17,371,843	17,101,587	20,573,945
_	(183,034)	(127,863)	(153,025)	862,276	316,095

Average difference 142,890

ORA-SDG&E-DR-069-PM1 Q2d Attachment

Please provide in Excel format all calculations SDG&E used in determining the forecast "8% per year in 2015 and 2016, based on expanding services, warranty expiration, and vendor cost escalations."

		IT Contr	act Costs base	ed upon 8% es	calation
Work Group	Description	2013	2014	2015	2016
1IT001.000	IT Applications NSS	1,613	2,092	2,259	2,440
2100-3091	SOFTWARE DEV - DATAB	2,788	2,976	3,402	3,471
2100-3099	DESKTOP HARDWARE	596	188	203	219
2100-3103	CSC CONTRACT SERVICE	12,114	8,904	9,616	10,385
2100-3106	NETWORK/TELECOM SERV	5,842	6,408	6,921	7,475
2100-3494	DISTRIBUTED CONTRACT	3,232	4,604	4,972	5,370
2100-3495	MAINFRAME CONTRACTS	5,701	6,077	6,563	7,088
2100-3501	IT NETWORK HARDWARE	1,066	1,075	1,161	1,254
2100-3623	SHARED SOFTWARE DEVE	4,954	4,954	5,350	5,778
2100-3855	CLINT SERVICES MAINT	5,471	4,514	4,875	5,265
2100-3856	VOICE LEASED CIRCUIT	900	1,069	1,155	1,247
2100-3859	SDGE PERSONAL OWNED	327	528	570	616
2100-3884	MGD SVC VOICE ENTERP	888	890	961	1,038
		45,492	44,279	48,008	51,646

Es	calation rat	es
2014	2015	2016
30%	8%	8%
7%	14%	2%
-68%	8%	8%
-26%	8%	8%
10%	8%	8%
42%	8%	8%
7%	8%	8%
1%	8%	8%
0%	8%	8%
-17%	8%	8%
19%	8%	8%
61%	8%	8%
0%	8%	8%
-3%	8%	8%

ORA-SDGE-DR-069-PM1 Q2e_f Attachment Amended Response 3/12/2015

Recorded and forecast O&M expenses for "IT contract costs" by cost center yearly 2014-2016 delineated by labor and non-labor.

2013\$ ('000)		Re	corded 2.f.		Forecast 2.e.						
GRC Wkp Grp Sub*	2009	2010	2011	2012	2013	2014	2015	2016			
1IT001.000					1,613	2,192	2,359	4,040			
2100-3091					2,788	2,788	3,137	4,515			
2100-3099	1,554	1,274	1,276	1,031	596	188	203	219			
2100-3103	11,091	10,424	10,190	9,927	12,114	8,904	9,616	10,385			
2100-3106	6,249	6,612	6,661	6,674	5,842	6,408	6,921	7,475			
2100-3494	9,889	9,839	8,996	6,649	3,232	4,604	4,972	5,370			
2100-3495	5,905	5,830	5,938	6,441	5,701	6,077	6,563	7,088			
2100-3501	3,508	2,486	2,852	1,130	1,066	1,075	1,161	1,254			
2100-3623	3,195	4,328	4,481	5,997	4,954	4,954	5,350	8,092			
2100-3781		637	1,027	830	507	870	1,290	1,330			
2100-3855				4,258	5,471	4,514	4,875	5,265			
2100-3856				413	900	1,069	1,155	1,247			
2100-3859				25	327	528	570	616			
2100-3884					888	890	961	1,038			
2100-3900						357	357	357			
2100-4001		90	90	409	64	64	239	239			
Grand Total	41,391	41,520	41,511	43,784	46,063	45,482	49,729	58,530			

^{*} All recorded and forecased O&M costs for IT contract costs are non-labor.

APPENDIX F

SDG&E Responses to Data Requests

ORA Data Request: ORA-SDG&E-DR-052-PM1, Question 2

ORA DATA REQUEST ORA-SDG&E-DR-052-PM1 SDG&E 2016 GRC – A.14-11-003

SDG&E RESPONSE

DATE RECEIVED: JANUARY 26, 2015 DATE RESPONDED: FEBRUARY 9, 2015

- 2. Please provide the following delineated by the shared and non-shared services for all software contracts included in GRC recorded and forecast O&M expenses 2009-2016:
 - a. Start date and expiration date.
 - b. Contract has option to expend service beyond the expiration date (yes or no).
 - c. Cost of contract by year (in nominal and base year 2013 dollars).
 - d. Total cost of software contracts by year (in nominal and base year 2013 dollars).
 - e. Type of contract (product contract, contract for the supply of products, contracts for the supply of services, or contract for the custom development (service) and supply of solutions/applications).

SDG&E Response 02:

The data to address this response was obtained through two separate internal systems. The SAP system contains the historical costs paid to software vendors and the Enterprise Contract Management (ECM) system contains the contract agreement with software vendors. The table represented in attachment ORA-SDG&E-DR-052-PM1 Q2 Attachment.xls represents combined information from these two systems in order to address answers to questions 2.a - 2.e.

For item 2.a, some software contracts, start date and expiration date are not available because the ECM system was upgraded in May, 2014. These are identified in the table as, "not avail."

For item 2.e, SDG&E does not track contract types by the categories listed above. We have provided the following level of detail, using general ledger accounts:

SRV-DISTRIB SOFTWARE	Generally used for vendor contracts associated with software that
	runs on a variety of distributed server platforms.
SRV-MAINFRAME SOFTWR	Generally used for vendor contracts associated with software that
	runs on the enterprise server platforms.
SRV-SOFTWR MAINT&LSE	Generally used for vendor contracts associated with software that
	runs on other hardware platforms.

ORA-SDG&E-DR-052-PM1 Q2

	E-DR-052-PM1 Q2																						
		Items:	2.a	2.a	2.b	2.e			Historical	Item 2.c	Nominal		Forecast*				Historical	Item 2.c - 0	GRC 2013		Forecast*		'n
n-Shared/	Vendor Name/		Start		Option to																		
Shared	Accounting Adj.	PO / Contract		End Date			2009	2010	2011	2012	2013	2014	2015	2016	2009	2010	2011	2012	2013	2014	2015	2016	i
Shared	Adjustment	None	Not Avail	Not Ava	il N/	A SRV-SOFTWR MAINT&LSE					259,824				-	-	-	-	259,824	-	-	-	Escalation R
	Vendor 106	5660026233	05/28/09 Not Avail			s SRV-SOFTWR MAINT&LSE s SRV-SOFTWR MAINT&LSE					28,460 203.167				-	-	-	-	28,460 203.167	-	-	-	2009
	Vendor 109	5660022411				s SRV-SOFTWR MAINT&LSE					54.000				-		-		54.000		-		2010
	Vendor 147	5660021561	, . ,	,		s SRV-SOFTWR MAINT&LSE					103,000				-	-	-	-	103,000	-	-	-	2012
	Vendor 165	5660022818	09/30/11	09/29/1	4 Ye	s SRV-SOFTWR MAINT&LSE					65,000				-	-	-	-	65,000	-	-	-	
	Vendor 76	5660012744				s SRV-SOFTWR MAINT&LSE					468,748				-	-	-	-	468,748	-	-	-	
		None	Not Avail	Not Ava	il Ye	s SRV-SOFTWR MAINT&LSE					430,774					-	-	-	430,774	-	-	-	
d	Adjustment	None	Not Avail	Not Ava	il N/	A SRV-DISTRIB SOFTWARE	199.202	(25,729)	(116.755)	(188.837)	1,612,972 39.842	-	-		181.951	(24,028)	(112.377)	(185.627)	1,612,972 39.842				
•	Aujustinent	None				A SRV-MAINFRAME SOFTWR	155,202	15	(49,118)	- (100,037)	143,760				-	14	(47,276)	- (103,027)	143,760				
		None	Not Avail		il N/	A SRV-SOFTWR MAINT&LSE	218,988	(21,518)	(262,510)	(1,119,260)	(54,964)				200,023	(20,096)	(252,666)	(1,100,232)	(54,964)	-	-	-	
	Vendor 1	5660001859				s SRV-SOFTWR MAINT&LSE	27,259	27,851	29,731						24,898	26,010	28,616	-	-	-	-	-	
	Vendor 10 Vendor 100		Not Avail			s SRV-SOFTWR MAINT&LSE	47.504	3,263	1,631						42.207	3,047	1,570	-	-	-	-	-	
	Vendor 100 Vendor 101	None 5660023506		Not Ava		s SRV-SOFTWR MAINT&LSE s SRV-DISTRIB SOFTWARE	47,501			23.678					43,387	-	-	23.276	-	-	-	-	
	Vendor 101	5660023300				s SRV-SOFTWR MAINT&LSE		56.000		23,076					-	52,298		23,276		-	-		
	Vendor 103	5660018202	Not Avail	Not Ava		s SRV-SOFTWR MAINT&LSE		5,245	5,376	4,723	5,511				-	4,898	5,174	4,642	5,511	-		-	
	Vendor 104	5660000809				s SRV-SOFTWR MAINT&LSE	18,009	73,594							16,450	68,730	-		-	-	-	-	
		5660012565				s SRV-SOFTWR MAINT&LSE	14,571	15,300	16,065	14,471					13,309	14,288	15,462	14,225	-	-	-	-	
	V1405	5660022941				s SRV-SOFTWR MAINT&LSE		62.207	70,416	60,410	90,482				-	-	67,776	59,383	90,482	-	-	-	
	Vendor 105 Vendor 106	5660014711 5660010785				s SRV-SOFTWR MAINT&LSE s SRV-DISTRIB SOFTWARE	36,632	63,297	118,953	23,280	58,991				33,459	59,113	114,492	22,885	58,991	-	-	-	
	200	5660010783				s SRV-DISTRIB SOFTWARE	19,624								17,925					-			
		5660014484				s SRV-DISTRIB SOFTWARE	35,643								32,557	-	-	-	-	-		-	
		5660015645				s SRV-SOFTWR MAINT&LSE		117,795	117,795						-	110,009	113,378	-	-	-	-	-	
		5660016979				s SRV-DISTRIB SOFTWARE	65,560	67,527	69,553						59,883	63,063	66,944	-	-	-	-	-	
		5660017349				s SRV-SOFTWR MAINT&LSE	7,921	8,515	8,729	7,425					7,235	7,952	8,401	7,299	-	-	-	-	
		5660017375 5660020481				s SRV-SOFTWR MAINT&LSE s SRV-SOFTWR MAINT&LSE	28,334	29,184	30,060	26,562					25,881	27,255	28,933	26,110		-	-		
		5660026089				s SRV-SOFTWR MAINT&LSE		23,204	30,000	1.262.784					-		-	1,241,317					
			Not Avail			s SRV-DISTRIB SOFTWARE	1,692,578	2,019,005	2,033,427	1,109,570					1,546,001	1,885,549	1,957,174	1,090,708	-	-	-	-	
			Not Avail			s SRV-MAINFRAME SOFTWR		101,121	50,474						-	94,437	48,581	-	-	-	-	-	
			Not Avail			s SRV-SOFTWR MAINT&LSE					2,780,461				-	-	-	-	2,780,461	-	-	-	
	Vendor 107	5660010485 None				s SRV-SOFTWR MAINT&LSE s SRV-SOFTWR MAINT&LSE	313,500 189,900	165,000 379,800	313,500	528,480	688,126				286,351 173,455	154,094 354,695	301,744	-	-	-	-	-	
	Vendor 108	5660012673				s SRV-SOFTWR MAINT&LSE	189,900	379,800	416,294	528,480	688,126				173,455	354,695	400,683	519,496	688,126	-	-		
	Vendor 11	5660000387				s SRV-DISTRIB SOFTWARE	68,540	37,133	68,540						62,604	-	65,970	-	-	-	-	-	
	Vendor 110	5660023487	Not Avail	Not Ava		s SRV-DISTRIB SOFTWARE			27,900		26,799				-		26,853	-	26,799	-		-	
	Vendor 111	5660008703				s SRV-DISTRIB SOFTWARE		9,600	9,750	9,552					-	8,965	9,384	9,390	-	-	-	-	
	Vendor 112	5660001919				s SRV-MAINFRAME SOFTWR	43,320	51,353	54,718	72,934	69,388				39,568	47,959	52,666	71,694	69,388	-	-	-	
	Vendor 113 Vendor 114	5660010347 5660010365				s SRV-MAINFRAME SOFTWR s SRV-DISTRIB SOFTWARE	10,627	11,941 11,380	13,360	9,000	8,233				9,707	11,152 10,628	12,859	8,847	8,233	-	-	-	
	Vendor 114 Vendor 115	5660010365				s SRV-DISTRIB SUFTWARE s SRV-SOFTWR MAINT&LSE	20.999	21,524	22,385	19,972					19,180	20,101	21,546	19,632	-	-	-	-	
	Velidol 113		Not Avail			s SRV-SOFTWR MAINT&LSE	20,555	21,324	22,303	13,372	150,999				15,160			- 15,032	150,999			-	
	Vendor 116	None	Not Avail	Not Ava	il Ye	s SRV-DISTRIB SOFTWARE					680,171				-	-	-	-	680,171	-	-	-	
	Vendor 117	5660010991				s SRV-SOFTWR MAINT&LSE	11,182								10,214	-	-	-	-	-	-	-	
	Vendor 118	5660008137				s SRV-MAINFRAME SOFTWR		7,489								6,994	-	-	-	-	-	-	
	Vendor 119	5660008137 5660015895				s SRV-SOFTWR MAINT&LSE s SRV-SOFTWR MAINT&LSE	35,000	35,000 6,300	6,489	5,733					31,969	32,687 5,884	6,246	5,636		-	-		
	Vendor 119	5660026934				s SRV-SOFTWR MAINT&LSE		0,300	0,469	3,733	131.786				-	3,004	0,240	5,030	131.786				
	Vendor 12		Not Avail			s SRV-SOFTWR MAINT&LSE					30,550				-	-	-	-	30,550	-	-	-	
	Vendor 120	5660000510				s SRV-SOFTWR MAINT&LSE	60,306	60,306	60,306	54,323	60,134				55,084	56,320	58,045	53,400	60,134	-	-	-	
		5660004690				s SRV-SOFTWR MAINT&LSE			45,161	40,680					-	-	43,467	39,989	-	-	-	-	
	Vendor 121	5660003856 5660004410				s SRV-DISTRIB SOFTWARE s SRV-DISTRIB SOFTWARE		20.200	42.536	124,096	115,875				-	-	-	121,986	115,875	-	-	-	
		5660011009				s SRV-DISTRIB SOFTWARE s SRV-DISTRIB SOFTWARE	24.181	39,208	42,536	41,673					22,087	36,616	40,941	40,964	-	-	-	-	
		5660011748				s SRV-DISTRIB SOFTWARE	2-7,201	7,801							-	7,286	-	-	-	-	-	-	
		5660011748	Not Avail	Not Ava	il Ye	s SRV-SOFTWR MAINT&LSE			8,192	4,424					-	-	7,884	4,349	-	-	-	-	
		5660012113				s SRV-SOFTWR MAINT&LSE	2,578	2,707	2,978	2,810					2,355	2,528	2,867	2,763	-	-	-	-	
		5660013334				s SRV-DISTRIB SOFTWARE	27,003	28,104	109,983						24,665	26,247	105,859	-	-	-	-	-	
		5660013745 5660016627				s SRV-DISTRIB SOFTWARE	34,914	34,913 14.880							31,890	32,606 13.896	-	-	-	-	-		
		5660019751				s SRV-DISTRIB SOFTWARE		14,000	28,000	27,432	25.614				-	13,030	26,950	26,965	25,614	-			
		5660019751				s SRV-SOFTWR MAINT&LSE		140,000	20,000	27,432	23,024				-	130,746	-	-	-	-	-	-	
		5660019896				s SRV-SOFTWR MAINT&LSE			2,017	1,795					-	-	1,941	1,764	-	-	-	-	
		5660026697				s SRV-SOFTWR MAINT&LSE				64,467					-		-	63,371	-	-	-	-	
			Not Avail			s SRV-DISTRIB SOFTWARE s SRV-SOFTWR MAINT&LSE	83,030 2.423	110,707 3.312	110,707 1.098	27,115					75,840 2.213	103,389 3.093	106,555 1.057	26,654 982	-	-	-	-	
	Vendor 122	None 5660025316	Not Avail 03/19/12			s SRV-SOFTWR MAINT&LSE s SRV-SOFTWR MAINT&LSE	2,423	3,312	1,098	999	7.381				2,213	3,093	1,057	982	7,381	-	-	-	
	*C01 122	None		Not Ava		s SRV-SOFTWR MAINT&LSE				6,477	7,301				-	-	-	6,367		-	-	-	
	Vendor 123	5660010926				s SRV-DISTRIB SOFTWARE	34,997	34,997		0,477					31,966	32,683		-					
	Vendor 124	5660026295				s SRV-SOFTWR MAINT&LSE				51,157	74,564						-	50,287	74,564	-	-	-	
	Vendor 125	5660012786				s SRV-DISTRIB SOFTWARE	-			47,565					-	-	-	46,757	-	-	-	-	
	Vendor 126	5660011056				s SRV-SOFTWR MAINT&LSE	F 00F	8,118	6.255	c 00-	79,450					7,581			79,450	-	-	-	
	Vendor 127 Vendor 128	5660010558 5660012814				s SRV-MAINFRAME SOFTWR s SRV-SOFTWR MAINT&LSE	5,985	6,172	6,360	6,996 19.045	8,013				5,467	5,764	6,122	6,877 18.722	8,013	-	-		
	Vendor 128 Vendor 129	56600012814				s SRV-SOFTWR MAINT&LSE s SRV-DISTRIB SOFTWARE	11.198	4,422	4,422	4,332	9.684				10.228	4,130	4,256	4,259	9,684	-	-	-	
	Vendor 13	5660017154	, ,	, . ,		s SRV-DISTRIB SOFTWARE	300,000	.,	.,	.,	-,				274,020	-	-,==0	-,	-,	-	-	-	
	Vendor 130			Not Ava		s SRV-SOFTWR MAINT&LSE	,.		4,069	3,491					,	_	3,916	3,431	_	_	_		

							Item 2.c - Nominal					Item 2.c - GRC 2013										
		Items:	2.a	2.a	2.b	2.e			Historical				Forecast*				Historical				Forecast*	
Non-Shared/	Vendor Name/		Start		Option to																	
Shared	Accounting Adj.	PO / Contract		End Date	Extend?	Contract Type	2009	2010	2011	2012	2013	2014	2015	2016	2009	2010	2011	2012	2013	2014	2015	2016
	Vendor 131	5660020185				SRV-SOFTWR MAINT&LSE			40,078	39,721	153,229				-	-	38,575	39,046	153,229	-	-	-
	Vendor 132 Vendor 133	5660015694 5660024362				SRV-DISTRIB SOFTWARE SRV-SOFTWR MAINT&LSE	103,680	20,648	18,831	21,940 6,319	18,066				94,701	19,284	18,125	21,567 6,212	18,066	-	-	-
	Vendor 133 Vendor 134			Not Avail		SRV-DISTRIR SOFTWARE		15.213		6,319					-	14.207	-	6,212	-	-	-	
	Vendor 135	5660010562	Not Avail	Not Avail	Yes	SRV-SOFTWR MAINT&LSE	22,306	103,891							20,374	97,024	-	-		-	-	-
		5660016618				SRV-SOFTWR MAINT&LSE		171,885							-	160,524	-	-		-	-	
		5660020204				SRV-SOFTWR MAINT&LSE		1,033	106,121	172,978	51,961				-	965	102,142	170,038	51,961	-	-	-
	Vendor 136	None 5660004049		Not Avail		SRV-SOFTWR MAINT&LSE SRV-MAINFRAME SOFTWR	853,241	1,484,625	1,934,336	1,803,924	1,923,050 197,332				779,350	1,386,491	1,861,799	1,773,258	1,923,050	-	-	-
	Vendor 136 Vendor 137	5660028581				SRV-MAINFRAME SUFTWR SRV-DISTRIB SOFTWARE	179,688	165,230	179,200	201,510	197,332				164,127	154,308	172,480	198,084	197,332	-	-	
				Not Avail		SRV-DISTRIB SOFTWARE					454,635					-	-	-	454,635	-	-	-
	Vendor 138	5660001660	Not Avail	Not Avail	Yes	SRV-DISTRIB SOFTWARE	28,125	35,000	35,000						25,689	32,687	33,688	-	-	-	-	-
		5660029367				SRV-DISTRIB SOFTWARE					12,507				-	-	-	-	12,507	-	-	-
	Vendor 139	5660006032 5660006365				SRV-DISTRIB SOFTWARE SRV-DISTRIB SOFTWARE	74,802 27,688	87,077 22.835	77,751 23.893	68,501	59,433 29.043				68,324 25,290	81,321 21.326	74,835 22.997	67,336	59,433 29.043	-	-	-
		5660007282				SRV-DISTRIB SOFTWARE	8,103	20,029	24,188		2,979				7,401	18,705	23,281		2,979			
		5660008226				SRV-DISTRIB SOFTWARE	9,278	,	10,153	10,651	17,763				8,474		9,772	10,470	17,763	-	-	-
		5660008741				SRV-DISTRIB SOFTWARE		2,544	2,544	2,438					-	2,376	2,449	2,396	-	-	-	-
		5660008768				SRV-DISTRIB SOFTWARE	80,246	73,731							73,297	68,857	-		-	-	-	-
		5660009145 5660009145				SRV-DISTRIB SOFTWARE SRV-MAINFRAME SOFTWR	10,037 2.720	10,536	10,164	11,104					9,168 2.484	9,840	9,783	10,915	-	-		-
		5660010190				SRV-MAINFRAME SOFT WR	7,000	31,700							2,484 6,394	29,605	-			-	-	-
		5660010404				SRV-DISTRIB SOFTWARE	22,777	23,770	25,196						20,805	22,199	24,251			-		
		5660010749				SRV-DISTRIB SOFTWARE		125,283							-	117,002	-	-	-	-	-	-
		5660010891				SRV-DISTRIB SOFTWARE	73,733	73,733	73,733						67,348	68,859	70,968	-	-	-	-	-
		5660010994 5660011039				SRV-DISTRIB SOFTWARE SRV-MAINERAME SOFTWR	11,770 59.830	11,935							10,751 54,649	11,146	-		-	-		-
		5660011169				SRV-DISTRIB SOFTWARE	4,566	4,678							4,171	4,369		-				
		5660013772	Not Avail	Not Avail		SRV-DISTRIB SOFTWARE	59,640								54,475	-	-	-	-	-	-	-
		5660016660				SRV-DISTRIB SOFTWARE		123,129	130,823	127,976					-	114,990	125,917	125,801	-	-	-	-
		5660020247				SRV-DISTRIB SOFTWARE		20,000	20,000	19,202					-	18,678	19,250	18,876	-	-	-	-
		5660020438 5660020438				SRV-DISTRIB SOFTWARE SRV-SOFTWR MAINT&LSE		100,280	81.000						-	93,651	77.963	-	-	-	-	
		5660020586				SRV-DISTRIB SOFTWARE		2.119	1,636	2,029					-	1,979	1,575	1,995				
		5660020673	Not Avail	Not Avail		SRV-DISTRIB SOFTWARE		, -	30,600	,					-	-	29,453	-	-	-	-	-
		5660021968				SRV-DISTRIB SOFTWARE			7,000	6,875					-	-	6,738	6,758	-	-	-	-
		5660022118				SRV-SOFTWR MAINT&LSE				80,441	104,530				-	-	-	79,074	104,530	-	-	-
		5660026451 5660026451				SRV-DISTRIB SOFTWARE SRV-SOFTWR MAINT&LSE				51,180	8,727				-	-	-	50,309	8,727	-		-
		5660026717				SRV-SOFTWR MAINT&LSE				7.173	0,/2/				-		-	7.051	- 0,727			
		5660027450				SRV-DISTRIB SOFTWARE					22,870				-		-	-	22,870	-	-	
		5660028205				SRV-DISTRIB SOFTWARE					9,880				-	-	-	-	9,880	-	-	-
				Not Avail		SRV-DISTRIB SOFTWARE		10,800							- 20	10,086	-	-	-	-	-	-
	Vendor 14 Vendor 140	None 5660003232		Not Avail		SRV-SOFTWR MAINT&LSE SRV-SOFTWR MAINT&LSE	64.500								20 58 914			-	-		-	
	Vendor 140	5660009930				SRV-SOFTWR MAINT&LSE	138,328	178,078	178,078	152,773	56,090				126,349	166,307	171,400	150,176	56,090		-	
	Vendor 141	5660019795	Not Avail	Not Avail	Yes	SRV-MAINFRAME SOFTWR		221,002	901,571	853,866	658,956					206,394	867,762	839,350	658,956	-	-	-
		5660029911	, ,	, .,		SRV-MAINFRAME SOFTWR					319,554				-	-	-	-	319,554	-	-	-
	Vendor 142 Vendor 143			Not Avail Not Avail		SRV-MAINFRAME SOFTWR SRV-MAINFRAME SOFTWR	4,661	5,011	5,387	5,792	5,696 25,797				4,257	4,680	5,185	5,694	5,696 25,797	-	-	-
	Vendor 143			Not Avail		SRV-DISTRIB SOFTWARE	46,773				25,/9/				42.722				25,797			-
	Vendor 145	5660011167				SRV-SOFTWR MAINT&LSE	5,946	3,733	3,733	3,202					5,431	3,486	3,593	3,148	-	-	-	-
	Vendor 146	5660005120				SRV-DISTRIB SOFTWARE	17,979	43,118	55,598	65,181	34,204				16,422	40,268	53,513	64,073	34,204	-		-
	Vendor 148	5660022187				SRV-SOFTWR MAINT&LSE	42.000	42.000	13,288	11,400					-	-	12,790	11,206	-	-	-	-
	Vendor 149 Vendor 15	5660013721 5660012658				SRV-DISTRIB SOFTWARE SRV-SOFTWR MAINT&LSE	12,000 68,000	12,000 74.800	12,360	12,472					10,961 62,111	11,207 69,856	11,897	12,260	-	-	-	-
	Vendor 150	5660017838				SRV-SOFTWR MAINT&LSE	00,000	10,647							-	9,943	-	-	-	-	-	-
		5660021241	Not Avail	Not Avail	Yes	SRV-SOFTWR MAINT&LSE			11,174						-	-	10,755	-	-	-	-	-
	Vendor 151	5660025182				SRV-SOFTWR MAINT&LSE				2,894					-		-	2,845	-	-	-	-
	Vendor 152 Vendor 153	5660017118 5660000223				SRV-SOFTWR MAINT&LSE SRV-SOFTWR MAINT&LSE		2,410		E 000					-	2,251	-	4.923	-	-	-	-
	venuur 155	5660000223 5660009598				SRV-SOFTWR MAINT&LSE SRV-SOFTWR MAINT&LSE	6.698	3.642	3,349	5,008 2,654					6,118	3.401	3,223	4,923 2,609	-	-	-	-
		5660012520				SRV-DISTRIB SOFTWARE	230,534	164,303	167,629	_,					210,570	153,442	161,343	-	-	-	-	-
		None	Not Avail	Not Avail	Yes	SRV-DISTRIB SOFTWARE				33,743					-	-	-	33,169	-	-	-	-
				Not Avail		SRV-SOFTWR MAINT&LSE					157,538				-	-	-	-	157,538	-	-	-
	Vendor 154	5660008186 5660021684				SRV-DISTRIB SOFTWARE SRV-DISTRIB SOFTWARE	397,113	50,000	11.830	9.936	16.379				362,723	46,695	11,386	9.767	16,379	-	-	-
			Not Avail			SRV-DISTRIB SOFTWARE		332,012	11,030	277,637	10,579				-	310,066	11,300	272,917	10,379			-
	Vendor 155	5660011933				SRV-SOFTWR MAINT&LSE	4,677	15,262	12,190	10,458					4,272	14,253	11,733	10,280		-	-	
	Vendor 156	5660016938				SRV-SOFTWR MAINT&LSE			3,383	3,047							3,256	2,995	-	-		-
	Vendor 157	5660000880				SRV-SOFTWR MAINT&LSE		107,000								99,927				-	-	-
	Vendor 158	5660001782				SRV-MAINFRAME SOFTWR SRV-DISTRIB SOFTWARE	163,062 34,314	163,062	178,074	187,974	189,627				148,941	152,284	171,396	184,778	189,627	-	-	-
	Vendor 159	5660002640 5660012390				SRV-DISTRIB SOFTWARE SRV-SOFTWR MAINT&LSE	34,314	47,696	24,743	12,721					31,342 28.322	44,543	23,815	12,505	-	-	-	-
		5660014232				SRV-SOFTWR MAINT&LSE	34,932	53,875	74,724						31,907	50,314	71,922			-	-	
		None	Not Avail	Not Avail		SRV-DISTRIB SOFTWARE	900								822	-	-	-	-	-	-	-
	Vendor 16	5660003216				SRV-MAINFRAME SOFTWR	7,485	7,710	7,941	7,941					6,837	7,200	7,643	7,806	-	-	-	
	Vendor 160 Vendor 161			Not Avail Not Avail		SRV-SOFTWR MAINT&LSE SRV-DISTRIB SOFTWARE	165,271	2,202	2,100 384,968	1,856	178,588				150.000	2,057	2,021	1,824	178,588	-	-	-
	Vendor 161 Vendor 162	5660023531				SRV-DISTRIB SUFTWARE SRV-SOFTWR MAINT&LSE	103,2/1	182,113	364,308	316,372	- 1/0,368				150,959	170,076	370,531	310,994	1/0,308	-	-	-
	Vendor 163	5660020805	, . ,	., . ,		SRV-DISTRIB SOFTWARE				277,637					-	-	-	272,917	-	-	-	-

		Items:	2.a	2.a	2.b	2.e	ltem Historical			Item 2.c -	tem 2.c - Nominal Forecast*				Historical				GRC 2013		Forecast*	
		items:				z.e			Historical				Forecast*				Historical				Forecast	
Non-Shared/ Shared	Vendor Name/ Accounting Adj.	PO / Contract		End Date		Contract Type	2009	2010	2011	2012	2013	2014	2015	2016	2009	2010	2011	2012	2013	2014	2015	2016
	Vendor 164	None 5660010332	Not Avail			RV-DISTRIB SOFTWARE RV-SOFTWR MAINT&LSE	7.919		349,245	(0)					7,233	-	336,148	(0)	-	-	-	-
	Vendor 104	5660015051				RV-SOFTWR MAINT&LSE	17,000								15,528	-		-	-	-	-	-
	Vendor 166	5660000771	Not Avail	Not Avail	Yes SF	RV-DISTRIB SOFTWARE	8,450	13,520							7,718	12,626	-	-	-	-	-	-
	Vendor 167 Vendor 168	5660018889 5660020968				RV-DISTRIB SOFTWARE RV-DISTRIB SOFTWARE			44,550 96,652	43,655					-	-	42,879 93,028	42,912	-	-	-	-
	Vendor 168 Vendor 169	56600240968				RV-DISTRIB SOFTWARE			96,652	35.828					-	-	93,028	35.219	-	-	-	-
			Not Avail		Yes SF	RV-DISTRIB SOFTWARE		128,125		58,971					-	119,656	-	57,968	-	-	-	-
	Vendor 17	5660020661				RV-SOFTWR MAINT&LSE					84,074				-	-	-	-	84,074	-	-	-
	Vendor 170 Vendor 171	None 5660006118		Not Avail		RV-DISTRIB SOFTWARE RV-DISTRIB SOFTWARE	14.000	(392) 60,130	24.000	5,363	33.654				12,788	(366) 56.155	23.100	5.272	33.654		-	
	Vendor 172	5660017984				RV-MAINFRAME SOFTWR	14,000	15,671	15,671	15,671	14,336				-	14,635	15,084	15,405	14,336	-	-	-
	Vendor 173	5660027340				RV-DISTRIB SOFTWARE					9,769				-	-	-	-	9,769	-	-	-
	Vendor 174	5660024236 5660025965	Not Avail Not Avail			RV-DISTRIB SOFTWARE RV-DISTRIB SOFTWARE				12,736 9,013					-	-	-	12,520 8,860	-	-	-	-
	Vendor 175	5660026738				RV-DISTRIB SOFTWARE				5,021					-	-		4.936		-	-	
		None	Not Avail	Not Avail	Yes SF	RV-DISTRIB SOFTWARE	7,459	5,125	5,125		4,688				6,813	4,786	4,933	-	4,688	-	-	-
	Vendor 18			Not Avail		RV-DISTRIB SOFTWARE	4,275		47.552	22.002	20.540				3,905	-	-	-	-	-	-	-
	Vendor 19 Vendor 2	5660020634 5660000723				RV-SOFTWR MAINT&LSE RV-DISTRIB SOFTWARE	65,000		47,652	33,803 12,249	38,519				59,371	-	45,865	33,228 12,041	38,519	-	-	-
		5660007084				RV-DISTRIB SOFTWARE	560			730					512	-		718	-		-	-
		5660010762				RV-DISTRIB SOFTWARE	30,716	30,716							28,056	28,686	-	-	-	-	-	-
		5660010762 5660011870				RV-SOFTWR MAINT&LSE RV-DISTRIB SOFTWARE	500	1.500	33,404						457	1.401	32,151		-			-
		5660013648				RV-DISTRIB SOFTWARE	17,300	17,300	25,000						15,802	16,156	24,063	-	-	-	-	-
		5660016630				RV-DISTRIB SOFTWARE	1,500								1,370	-	-	-	-	-	-	-
		5660017385 5660018970				RV-DISTRIB SOFTWARE RV-DISTRIB SOFTWARE	11,888	20,760		23,518					10,858	19,388	-	23,118	-	-	-	-
		5660019820				RV-DISTRIB SOFTWARE				1,009								992			-	
		5660021803				RV-DISTRIB SOFTWARE			3,750		3,842				-	-	3,609	-	3,842	-	-	-
		5660022278 5660028130				RV-DISTRIB SOFTWARE RV-DISTRIR SOFTWARE			112,824		14.125					-	108,593	-	14.125	-	-	-
				Not Avail		RV-DISTRIB SOFTWARE	13.281				14,125				12,131	-	-	-	14,125		-	
	Vendor 20	5660004528	12/30/05	09/28/15	Yes SF	RV-DISTRIB SOFTWARE	60,937								55,660	-	-	-	-	-	-	-
		5660004528				RV-MAINFRAME SOFTWR	110,502		11,974	205,944					100,932		11,524	202,443	-	-	-	-
		5660004717 None	Not Avail			RV-DISTRIB SOFTWARE RV-DISTRIB SOFTWARE	50,489 93,044	45,414 78,642	38,850 86,734	84,974	79.044				46,117 84,986	42,412 73.443	37,393 83.482	83.529	79.044	-	-	
			Not Avail			RV-MAINFRAME SOFTWR	153,372	154,984	159,820	159,820	152,481				140,090	144,740	153,827	157,103	152,481			
	Vendor 21	5660021869				RV-DISTRIB SOFTWARE			12,400	11,115	9,880				-	-	11,935	10,926	9,880	-	-	-
	Vendor 22	None 5660009398	Not Avail			RV-DISTRIB SOFTWARE RV-SOFTWR MAINT&LSE		11.476		85	75				-	10,717	-	83	75	-	-	-
	Vendor 23		Not Avail			RV-DISTRIB SOFTWARE		11,470		(22,984)					-	-	-	(22,593)	-	-	-	-
	Vendor 24	5660004609				RV-SOFTWR MAINT&LSE	21,323	22,365	23,458	20,715					19,477	20,886	22,578	20,363	-	-	-	-
	Vendor 25	None 5660010345	Not Avail			RV-SOFTWR MAINT&LSE RV-MAINFRAME SOFTWR	25.220	12,000	13.500		489				23,036	11,207	12.994	-	489	-	-	-
	Vendor 26	5660009071				RV-DISTRIB SOFTWARE	43,500	42,000	13,300						39,733	39,224	- 12,554	-			-	
		5660015695	Not Avail	Not Avail		RV-DISTRIB SOFTWARE	25,000								22,835	-	-	-	-	-	-	-
	Vendor 27 Vendor 28	5660025214 5660004423				RV-SOFTWR MAINT&LSE RV-SOFTWR MAINT&LSE	71.750	38,590	38,590	64,171 33,106	106,904				65,536	36,039	- 37,143	63,080 32,544	106,904	-	-	-
	Vendor 29	5660002540				RV-DISTRIB SOFTWARE	18,420	36,390	36,390	33,100					16,825		- 37,143	32,344		-	-	
		5660002540	06/30/05	10/25/15	Yes SF	RV-MAINFRAME SOFTWR			65,632	250,615	151,065				-	-	63,171	246,355	151,065	-	-	-
		5660002923 5660003377				RV-DISTRIB SOFTWARE RV-DISTRIB SOFTWARE	82,688 149,301	86,822 233,686	89,427						75,527	81,083 218,239	86,073	-	-		-	-
		5660011813				RV-DISTRIB SOFTWARE	149,301	11.620	11.620	11.384					136,372	10.852	11.184	11.191	-	-	-	-
		5660011829				RV-DISTRIB SOFTWARE			204,378	145,067	135,457				-	-	196,714	142,601	135,457	-	-	-
		5660015278 5660021444				RV-DISTRIB SOFTWARE RV-DISTRIB SOFTWARE	231,641	78,307	217.500	73,511 66.130	68,454 61,749				211,581	73,131	209.344	72,261 65.006	68,454 61,749		-	-
		5660021444				RV-DISTRIB SOFTWARE			152,441	147,750	155,005				-	-	146,725	145,239	155,005	-	-	
		5660023358				RV-DISTRIB SOFTWARE			19,656		17,981				-	-	18,919	-	17,981	-	-	-
			Not Avail			RV-DISTRIB SOFTWARE	359,165	351,502	131,245	225,017	551,487				328,062	328,268	126,324	221,192	551,487	-	-	-
			Not Avail	Not Avail Not Avail		RV-MAINFRAME SOFTWR RV-SOFTWR MAINT&LSE	1,045,530	1,011,584	1,213,452	1,285,171	1,418,447 (38,214)				954,987	944,718	1,167,948	1,263,323	1,418,447 (38,214)	-	-	
	Vendor 3	5660021455			Yes SF	RV-DISTRIB SOFTWARE			801	195	(00)22.)						771	192				
	Vendor 30	5660000303				RV-MAINFRAME SOFTWR	165,000	179,397	192,175	252,416					150,711	167,539	184,969	248,125	-	-	-	-
	Vendor 31 Vendor 32	5660012659 5660001534				RV-SOFTWR MAINT&LSE RV-SOFTWR MAINT&LSE	57,420	50,316	57,420 52,329	48,935	55,763				52,447	46.990	55,267 50,367	48,103	55,763		-	
	Vendor 33	5660013649				RV-SOFTWR MAINT&LSE	8,390	9,390	9,390	40,555	33,703				7,663	8,769	9,038		-			
	Vendor 34	5660008957				RV-DISTRIB SOFTWARE	26,775								24,456	-	-	-	-	-	-	-
	Vendor 35	5660018889 5660009995				RV-DISTRIB SOFTWARE RV-SOFTWR MAINT&LSE	9.115	44,550 9.571	1,474						- 8.325	41,605 8.938	1.419	-	-	-	-	-
	Vendor 36	5660009995				RV-SOFTWR MAINT&LSE	4,333	4,333	4,333	3,717					8,325 3,958	8,938 4,047	4,171	3,654		-		
	Vendor 37	5660017262	Not Avail	Not Avail	Yes SF	RV-DISTRIB SOFTWARE	126,855		.,	-,					115,869	-	-	-	-	-	-	-
	Vendor 38	5660011284				RV-MAINFRAME SOFTWR		35,592	17,796		47.05-				-	33,239	17,129	-	47.05-	-		-
	Vendor 39	5660026653 5660002644				RV-MAINFRAME SOFTWR RV-MAINFRAME SOFTWR	11.825	10.051	8.600	8.600	17,908				10.801	9.387	8.278	8.454	17,908	-	-	-
	Vendor 4	5660016807	,,	,,		RV-DISTRIB SOFTWARE	115,928	,	-,	5,550					105,889	-,	-	-,	-	-		
	Vendor 40	None	Not Avail	Not Avail		RV-MAINFRAME SOFTWR	4,043	4,125	4,125						3,692	3,852	3,970	-	-	-	-	-
	Vendor 41 Vendor 42	5660022131	, . ,	05/30/15 Not Avail		RV-DISTRIB SOFTWARE RV-DISTRIB SOFTWARE			92,906		21.991				-	-	89,422	-	21.991	-	-	-
	Vendor 42 Vendor 43	5660003527				RV-DISTRIB SOFTWARE		24,585	35,772		21,991				-	22,960	34,431	-	- 1,331	-	-	-
		5660003527	Not Avail	Not Avail	Yes SF	RV-SOFTWR MAINT&LSE	23,634								21,587	-	-	-	-	-		-

							Item 2.c - Nominal							Item 2.c - GRC 201				GRC 2013				
		Items:	2.a	2.a	2.b	2.e			Historical				Forecast*				Historical				Forecast*	
Non-Shared/ Shared	Vendor Name/ Accounting Adj.	PO / Contract		End Date		Contract Type	2009	2010	2011	2012	2013	2014	2015	2016	2009	2010	2011	2012	2013	2014	2015	2016
	Vendor 44	5660002400		Not Avail		RV-DISTRIB SOFTWARE RV-SOFTWR MAINT&LSE	4,569	23.009	13.745	32.230					4,173	21.488	13,230	31.682	-	-	-	-
		5660003460 5660007835				RV-SOFTWR MAINT&LSE RV-DISTRIB SOFTWARE	22,289	23,009	13,745 9,047	32,230 8,863	2,336				20,359	21,488	13,230 8,708	31,682 8,712	2,336	-	-	-
		None	Not Avail	Not Avail	Yes Si	RV-SOFTWR MAINT&LSE		30,905	663	.,	,					28,862	638	-	-	-	-	-
	Vendor 45 Vendor 46	5660009943 5660013649				RV-SOFTWR MAINT&LSE RV-SOFTWR MAINT&LSE	22,550	23,250	4,069	8,056					20,597	21,713	3,916	- 7,919	-	-	-	-
	Vendor 47	5660013787				RV-SOFTWR MAINT&LSE	42,873			8,030					39,160	-	-	- 7,919		-	-	
	Vendor 48	5660016014				RV-SOFTWR MAINT&LSE	14,100	13,350	19,600		19,161				12,879	12,468	18,865	-	19,161	-	-	-
	Vendor 49		Not Avail Not Avail			RV-SOFTWR MAINT&LSE RV-DISTRIB SOFTWARE	4 849	2,250 11,552	4,801	16,815 5,240					4,429	2,101 10,788	4,621	16,529 5,151	-	-	-	-
	Vendor 5	5660018586				RV-SOFTWR MAINT&LSE	4,043	12,000	4,001	1,716					-,423	11,207	-,022	1,687				
			Not Avail			RV-SOFTWR MAINT&LSE			2,000						-	-	1,925	-	-	-	-	-
	Vendor 50 Vendor 51	None 5660018953	Not Avail			RV-DISTRIB SOFTWARE RV-SOFTWR MAINT&LSE		1,970		18,017	24,539					1,840	-	17,710	24,539	-	-	-
	Vendor 52	5660005531		Not Avail		RV-SOFTWR MAINT&LSE	10,145			,	,				9,266	-	-		- ,,	-	-	-
	Vendor 53 Vendor 54	5660010424	Not Avail Not Avail			RV-DISTRIB SOFTWARE RV-SOFTWR MAINT&LSE	5,613 2,294	3,402							5,127 2,096	3,177	-	-	-	-	-	-
	Vendor 54 Vendor 55	None 5660004753				RV-SUFTWR MAINT&LSE RV-DISTRIR SOFTWARE	2,294 6.853								6,259	-	-	-	-	-	-	-
	Vendor 56	5660017356				RV-SOFTWR MAINT&LSE	34,443								31,460	-	-	-	-	-	-	-
	Vendor 57	5660020455 5660020455				RV-SOFTWR MAINT&LSE RV-SOFTWR MAINT&LSE		34,443	1.427						-	32,167	1.374		-	-		
	vendor 57	5660023246				RV-SOFTWR MAINT&LSE			35,423	809	34,091					-	34,095	795	34,091	-	-	-
		None	Not Avail	Not Avail	Yes Si	RV-SOFTWR MAINT&LSE					-					-		-		-	-	-
	Vendor 58	5660008248 5660009951				RV-DISTRIB SOFTWARE RV-DISTRIB SOFTWARE	18,868	113.108							17,234	105.631	-	-	-	-	-	-
		5660017427				RV-DISTRIB SOFTWARE	6,050	4,875	3,860						5,526	4,553	3,715	-	-	-	-	-
		5660018887				RV-DISTRIB SOFTWARE		16,000	5,000						-	14,942	4,813	-	-	-	-	-
		5660020413 5660027565				RV-DISTRIB SOFTWARE RV-DISTRIB SOFTWARE			64,746	5,878					-	-	62,318	- 5,778	-	-	-	-
	Vendor 59	5660003680				RV-SOFTWR MAINT&LSE	44,168	44,166	44,166	37,890					40,343	41,247	42,510	37,246				
		5660009679				RV-SOFTWR MAINT&LSE	5,469								4,996	-		-	-	-	-	-
	Vendor 6	None 5660012988		Not Avail		RV-SOFTWR MAINT&LSE RV-SOFTWR MAINT&LSE	2,970		438						2,713	-	421					
		None	Not Avail	Not Avail	Yes Si	RV-SOFTWR MAINT&LSE	3,582	3,582	3,980	3,414					3,272	3,345	3,831	3,356	-	-	-	-
	Vendor 60	5660015937				RV-DISTRIB SOFTWARE		6,800	6,800							6,351	6,545		-	-	-	-
	Vendor 61	5660007487 None	Not Avail			RV-SOFTWR MAINT&LSE RV-SOFTWR MAINT&LSE	19,001	14,142	4.284	13,294					17,356	13,207	4,123	13,068	-	-	-	-
	Vendor 62	5660001251			Yes Si	RV-DISTRIB SOFTWARE	63,760								58,239	-	-	-	-	-	-	-
		5660005636 5660008171		Not Avail Not Avail		RV-SOFTWR MAINT&LSE RV-SOFTWR MAINT&LSE	4,340 5.078	6,098	4,277	4,399					3,964 4.638	5,695	4,116	4,324	-	-	-	-
		5660011906				RV-SOFTWR MAINT&LSE	1,681	1,681							1,535	1,570						
		5660012577				RV-SOFTWR MAINT&LSE			76,405	65,548					-	-	73,540	64,433	-	-	-	-
		5660013564 5660016649				RV-SOFTWR MAINT&LSE RV-SOFTWR MAINT&LSE	93,336		44,563 15,905						85,253	-	42,891 15,309	-	-	-	-	-
		5660017264				RV-SOFTWR MAINT&LSE		135,290	138,091	224,351	378,511				-	126,347	132,913	220,537	378,511			
		5660026411				RV-DISTRIB SOFTWARE				33,587					-	-	-	33,016		-	-	-
		5660027316 None	Not Avail			RV-DISTRIB SOFTWARE RV-SOFTWR MAINT&LSE			(25,567)		64,700						(24,608)		64,700			
	Vendor 63	5660023763				RV-DISTRIB SOFTWARE					115,923				-	-	-	-	115,923	-	-	-
	Vendor 64 Vendor 65		Not Avail Not Avail	Not Avail		RV-MAINFRAME SOFTWR RV-SOFTWR MAINT&LSE	7,875 8.710	7,875	7,875 13.372	7,875	7,204				7,193	7,354	7,580 12.871	7,741 5.778	7,204	-		-
	Vendor 65 Vendor 66	5660001548				RV-MAINFRAME SOFTWR	2,533,178	2,508,946	1,426,200	5,878 1,712,022	1,593,214				7,956 2,313,805	2,343,105	1,372,717	1,682,917	1,593,214	-	-	
		5660001548				RV-SOFTWR MAINT&LSE		1,765							-	1,648	-	-	-	-	-	-
		5660003062 5660009092				RV-DISTRIB SOFTWARE RV-DISTRIB SOFTWARE	211,569 61,951	259,579 16,284	354,309 8,866	668,853	486,148				193,247 56,586	242,420 15,208	341,022 8,533	657,483	486,148	-	-	-
		5660009462				RV-MAINFRAME SOFTWR	31,331	26,340	0,000						-	24,599	-	-	-	-	-	-
		5660009693				RV-SOFTWR MAINT&LSE	32,061	93,396	77,063	68,214	81,570				29,285	87,223	74,173	67,054	81,570	-	-	-
		5660012556 5660017315				RV-SOFTWR MAINT&LSE RV-SOFTWR MAINT&LSE	11,275	23,338 25,184	58,907 46,195	28,659	30,813				10,299	21,795 23.519	56,698 44.463	28,172	30,813	-	-	-
		5660017358	Not Avail	Not Avail	Yes Si	RV-SOFTWR MAINT&LSE	77,264	47,324	83,167	78,484					70,573	44,196	80,048	77,150	-	-	-	-
		5660018914				RV-DISTRIB SOFTWARE RV-SOFTWR MAINT&LSE		6,237	8,606	9,277	2 425				-	5,824	8,284	9,119	-	-	-	-
		5660023381 5660023551				RV-SOFTWR MAINT&LSE RV-MAINFRAME SOFTWR			3,537 218.756	2,071	2,426				-	-	3,404 210.553	2,036	2,426	-	-	-
		5660023719				RV-DISTRIB SOFTWARE			15,984							-	15,385	-	-	-	-	-
			Not Avail Not Avail	Not Avail		RV-DISTRIB SOFTWARE RV-MAINFRAME SOFTWR	(489,445)	(269,551)		161,517	261,666 29,579				(447,059)	(251,734)	-	158,771	261,666 29,579	-	-	-
			Not Avail			RV-SOFTWR MAINT&LSE	4,697				29,579				4,290	-		-	29,579	-	-	
	Vendor 67	5660003773				RV-SOFTWR MAINT&LSE	61,137	39,188	40,022	34,624					55,843	36,597	38,522	34,035	-	-	-	-
	Vendor 68 Vendor 69	5660004935 5660010448				RV-MAINFRAME SOFTWR RV-SOFTWR MAINT&LSE	25,014 24,973	20,049	20,651	21,270	20,042				22,848 22.810	18,724	19,876	20,909	20,042	-	-	-
	venual us		Not Avail			RV-SOFTWR MAINT&LSE	- 24,3/3									-	-	-	-	-	-	-
	Vendor 7	5660000206	Not Avail	Not Avail	Yes Si	RV-DISTRIB SOFTWARE			6,405						-	-	6,165	-	-	-	-	-
	Vendor 70	5660005337 5660022618				RV-DISTRIB SOFTWARE RV-SOFTWR MAINT&LSE	30,500	30,500	14,985	4,362					27,859	28,484	14,423	4,288	-	-	-	-
	Vendor 71	5660024368				RV-SOFTWR MAINT&LSE			14,505	74,757	71,371					-	- 14,423	73,486	71,371			
	Vendor 72	5660012009				RV-SOFTWR MAINT&LSE				23,919	29,982						-	23,512	29,982	-	-	-
	Vendor 73 Vendor 74	5660004145 None	Not Avail Not Avail			RV-DISTRIB SOFTWARE RV-SOFTWR MAINT&LSE	59,831	59,831		3.427					54,650	55,876	-	3,369	-	-	-	-
	Vendor 75	None	Not Avail	Not Avail	Yes Si	RV-DISTRIB SOFTWARE	700			-,					639	-	-	-	-	-	-	-
	Vendor 76	5660012744				RV-SOFTWR MAINT&LSE	(52.4==)			520,075					(55.75-)	-	-	511,233	-	-	-	-
		None	not Avail	Not Avail	Yes Si	RV-DISTRIB SOFTWARE	(62,178)								(56,793)	-	-	-	-	-	-	-

							Item 2.c - Nominal							Item 2.c - GRC 2013								
		Items:	2.a	2.a	2.b	2.e			Historical				Forecast*				Historical				Forecast*	
Ion-Shared/	Vendor Name/		Start		Option to																	
Shared	Accounting Adj.	PO / Contract		End Date		Contract Type	2009	2010	2011	2012	2013	2014	2015	2016	2009	2010	2011	2012	2013	2014	2015	2016
		None	Not Avail	Not Avail	Yes S	RV-SOFTWR MAINT&LSE				201,212	38,214				-	-	-	197,792	38,214	-		
	Vendor 77	5660020660	01/27/11	01/26/16	Yes S	RV-SOFTWR MAINT&LSE					39,104				-	-	-	-	39,104	-	-	-
	Vendor 78	5660017732	Not Avail	Not Avail	Yes S	SRV-SOFTWR MAINT&LSE		63,000	63,832	56,814	66,261				-	58,836	61,438	55,848	66,261	-	-	-
		None	Not Avail	Not Avail	Yes S	RV-SOFTWR MAINT&LSE		5,000							-	4,670	-	-	-	-	-	-
	Vendor 79	5660002504	Not Avail	Not Avail	Yes S	SRV-SOFTWR MAINT&LSE	9,600	9,600	9,600						8,769	8,965	9,240	-	-	-	-	-
	Vendor 8	5660007852	Not Avail	Not Avail	Yes S	RV-MAINFRAME SOFTWR	163,000	140,811	143,568	172,410					148,884	131,503	138,184	169,479	-	-	-	-
	Vendor 80	5660022109	Not Avail	Not Avail	Yes S	RV-SOFTWR MAINT&LSE			6,550	5,619					-	-	6,304	5,524	-	-	-	-
	Vendor 81	5660000174	Not Avail	Not Avail	Yes S	RV-MAINFRAME SOFTWR	74,473	76,709	83,642	88,728					68,024	71,639	80,505	87,220	-	-	-	-
	Vendor 82	5660000206	Not Avail	Not Avail	Yes S	RV-DISTRIB SOFTWARE	19,762								18,050	-	-	-	-	-	-	-
	Vendor 83	5660007783	Not Avail	Not Avail	Yes S	RV-DISTRIB SOFTWARE		13,792		12,641					-	12,880	-	12,426	-	-	-	-
	Vendor 84	None	Not Avail	Not Avail	Yes S	RV-MAINFRAME SOFTWR	95	95	95	95					87	89	91	93	-	-	-	-
	Vendor 85	5660026300	Not Avail	Not Avail	Yes S	RV-DISTRIB SOFTWARE				51,592					-	-	-	50,715	-	-	-	-
	Vendor 86	5660017333	Not Avail	Not Avail	Yes S	RV-DISTRIB SOFTWARE	202,294	105,010	68,225						184,775	98,069	65,667	-	-	-	-	-
	Vendor 87	5660006343	08/09/95	08/08/15	Yes S	RV-MAINFRAME SOFTWR	28,000	28,000	28,000	28,000					25,575	26,149	26,950	27,524	-	-	-	-
	Vendor 88	5660028328	04/04/13	12/30/14	Yes S	RV-SOFTWR MAINT&LSE					248,604				-	-	-	-	248,604	-	-	-
	Vendor 89	5660004424	Not Avail	Not Avail	Yes S	SRV-SOFTWR MAINT&LSE	66,509		74,963	393					60,749	-	72,151	386	-	-	-	-
		5660014377	Not Avail	Not Avail	Yes S	RV-SOFTWR MAINT&LSE	20,500								18,725	-	-	-	-	-	-	-
		5660024881	01/19/12	01/18/17	Yes S	SRV-SOFTWR MAINT&LSE				137,640	1,533				-	-	-	135,300	1,533	-	-	-
		None	Not Avail	Not Avail	Yes S	RV-SOFTWR MAINT&LSE				2,363	7,782				-	-	-	2,323	7,782	-	-	-
	Vendor 9	None	Not Avail	Not Avail	Yes S	RV-SOFTWR MAINT&LSE	500	-							456	-	-	-	-	-	-	-
	Vendor 90	5660001682	05/19/05	08/31/15	Yes S	RV-DISTRIB SOFTWARE	227,414	132,807	79,114	69,499					207,720	124,028	76,147	68,318	-	-	-	-
		5660001772	04/01/99	06/28/14	Yes S	RV-DISTRIB SOFTWARE				43,065	54,769				-	-	-	42,333	54,769	-	-	-
		5660002969	09/30/05	06/29/14	Yes S	RV-DISTRIB SOFTWARE	35,813	29,828	35,813	41,380	17,505				32,712	27,856	34,470	40,677	17,505	-	-	-
		5660016257	Not Avail	Not Avail	Yes S	RV-DISTRIB SOFTWARE	-	85,560							-	79,904	-	-	-	-	-	-
		5660019027	Not Avail	Not Avail	Yes S	RV-DISTRIB SOFTWARE		200,000							-	186,780	-	-	-	-	-	-
		5660026782	Not Avail	Not Avail	Yes S	SRV-SOFTWR MAINT&LSE				74,740					-	-	-	73,470	-	-	-	-
		None	Not Avail	Not Avail	Yes S	RV-DISTRIB SOFTWARE	1,583,182	2,238,339	1,755,176	1,533,507	2,086,350				1,446,078	2,090,385	1,689,357	1,507,437	2,086,350	-	-	-
	Vendor 91	5660007623	Not Avail	Not Avail	Yes S	RV-DISTRIB SOFTWARE	25,304	26,569							23,113	24,813	-	-	-	-	-	-
		5660007623	Not Avail	Not Avail	Yes S	RV-MAINFRAME SOFTWR	(2,929)								(2,675)	-	-	-	-	-	-	-
	Vendor 92	None	Not Avail	Not Avail	Yes S	RV-SOFTWR MAINT&LSE	2,500	2,500	4,131	3,259	2,511				2,284	2,335	3,976	3,204	2,511	-	-	-
	Vendor 93	5660004086	Not Avail	Not Avail	Yes S	RV-DISTRIB SOFTWARE	62,178								56,793	-	-	-	-	-	-	-
	Vendor 94	5660008292	Not Avail	Not Avail	Yes S	RV-DISTRIB SOFTWARE	51,219								46,784	-	-	-	-	-	-	-
	Vendor 95	5660011856	04/01/08	04/28/15	Yes S	SRV-SOFTWR MAINT&LSE				10,285					-	-	-	10,110	-	-	-	-
	Vendor 96	5660009519	07/30/07	01/26/15	Yes S	SRV-DISTRIB SOFTWARE		3,657	3,657						-	3,415	3,520	-	-	-	-	-
		5660009519	07/30/07	01/26/15	Yes S	SRV-SOFTWR MAINT&LSE	5,600	42,983	40,227	42,050	36,800				5,115	40,142	38,718	41,335	36,800	-	-	-
	Vendor 97	5660015796	Not Avail	Not Avail	Yes S	RV-SOFTWR MAINT&LSE	44,876								40,989				-		-	-
	Vendor 98	5660001520	Not Avail	Not Avail	Yes S	RV-SOFTWR MAINT&LSE	103,646	108,830							94,670	101,636	-	-	-	-	-	
	Vendor 99	5660016240	Not Avail	Not Avail	Yes S	RV-DISTRIB SOFTWARE		1,404								1,311	-		-		-	-
							15,836,286	17,750,080	17,371,843	17,101,587	18,960,972	-	-	-	14,464,864	16,576,800	16,720,398	16,810,860	18,960,972	-	-	
al (item 2.d)							15,836,286	17,750,080	17,371,843	17,101,587	20,573,945	22,219,860	23,997,449	25.917.245	14.464.864	16,576,800	16.720.398	16.810.860	20.573.945	22.219.860	23,997,449	25,917,24

^{*} Forecast was estimated by adding an 8% escalation rate to the total contract cost.

APPENDIX G

SDG&E Responses to Data Requests

ORA Data Request: ORA-SDG&E-DR-069-PM1, Question 7

DATE RECEIVED: FEBRUARY 20, 2015 DATE RESPONDED: MARCH 9, 2015 REVISED RESPONSE: APRIL 14, 2015

7. In response to data request ORA-SDG&E-052-PM1, Q.11, Cost Center 2100-3623, SDG&E states under assumptions "Contractual Obligation to support GIS system software. These costs were previously recorded in 2013 and forecasted in 2014-2015 in Electric Operations." Based on this statement please identify in TY 2016 GRC testimony where SDG&E accounted for the transition of costs from Electric Operations to an IT cost center. Include Cost Center(s) and copies of testimony and WP's supporting the transition of costs.

SDG&E Response 07:

Upon further review, it appears that the portion of GIS system software maintenance costs mentioned above was not transitioned out of the testimony and work papers of Electric Distribution, Exhibits SDG&E-10-R and SDG&E-10-WP-R. To correct this, Exhibit SDG&E-10-WP-R, work paper 1ED003.000 will be reduced by \$652,000 at the earliest opportunity.

Electric Distribution, Electric Transmission and SDG&E and SoCalGas Distribution Integrity Management Programs (DIMP) also recorded, or will record, a portion of the total GIS system software maintenance costs in 2013, 2014 and 2015. With the exception of Electric Distribution (as mentioned above), these business units did not forecast for the GIS system software maintenance licensing costs in 2016 in this GRC. A breakdown of the annual costs allocated to the four business units is shown in the following table.

As shown in IT's workpaper 2100-3623 Shared Software Development Contracts, the total IT request for GIS software maintenance in 2016 is \$2.314 million. This cost will be transitioned over to IT from the four business units described above. The Electric Transmission FERC costs are part of a balancing/memorandum account and are not shown in any other witness area of this GRC.

GIS System Software Maintenance In 2012 \$(000)												
GIS System Software Maintenance - In 2013 \$(000)												
		Electric										
	Electric	Transmission	SDG&E	SoCalGas	Information							
Year	Distribution	(FERC)	DIMP	DIMP	Technology	Total						
2013	519	47	170	1,061	0	1,797						
2014	587	52	204	1,272	0	2,115						
2015	614	55	213	1,331	0	2,213						
2016	0	0	0	0	2,314	2,314						

Note: Electric Distribution is shown here with the correction described in the first paragraph of this response.