

Application of Southern California Gas Company
for authority to update its gas revenue requirement
and base rates effective on January 1, 2012.
(U904G)

Application No. 10-12-____
Exhibit No.: (SCG-13-CWP)

CAPITAL WORKPAPERS TO
PREPARED DIRECT TESTIMONY
OF RICHARD D. PHILLIPS
ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

DECEMBER 2010



CAPITAL PROJECT WORKPAPER

PROJECT TITLE GIS	BUDGET NO. 00810.0
WITNESS Richard Phillips	IN SERVICE DATE 12/31/2011

PROJECT COST (\$000 in 2009\$)	PRIOR YEARS	2009	2010	2011	2012	REMAINING YEARS	TOTAL
DIRECT LABOR		490	2997	2981	166	0	6634
DIRECT NONLABOR		10388	8583	12741	4212	0	35924
TOTAL DIRECT CAPITAL		10878	11580	15722	4378	0	42558
COLLECTIBLE							
NET CAPITAL		10878	11580	15722	4378	0	42558
FTE		5.1	24.0	24.0	1.0	0	54.1

Business Purpose

This project is part of the larger OpEx 20/20 program to deploy technology to be used to improve operations, enhance the customer experience and provide more tools and information to front-line employees. The objectives of the GIS project are to implement an industry standard, enterprise-wide geographic information system that supports gas and electric distribution, transmission, substation, land services and environmental and is integrated with applications such as outage management, network modeling, work management, graphical work design, and mobile data devices. The GIS is a key enabler of other projects within the OpEx 20/20 program to achieve program goals, and associated benefits.

Physical Description

This project will implement software applications and the associated business processes to support various types and levels of facility maps, mobile viewing platforms, plotting applications, and file management. Included in this is a centralized asset register with validated asset attribute data, and integration to other key asset management systems and applications. It will also provide for the development and implementation of a GIS-based environmental tracking and reporting tool and implementation of a commercially maintained GIS-based landbase.

Project Justification

This project, as an integral part of the larger OpEx 20/20 program, was developed to make the utilities more efficient and to help meet future operational challenges. The solutions being implemented and the associated processes are key to achieving future productivity targets while continuing to maintain customer satisfaction and safety. The overall program O&M and Capital cost across both Utilities is \$545 million, and the overall Net Present Value ("NPV") benefit is \$251 million.

Forecast Methodology

Cost estimates were based on costs of similar projects completed at other companies of comparable size. Estimates were adjusted for numbers and types of users impacted, number of

CAPITAL PROJECT WORKPAPER

PROJECT TITLE GIS	BUDGET NO. 00810.0
WITNESS Richard Phillips	IN SERVICE DATE 12/31/2011

legacy systems being replaced, types and volumes of data to be converted, system integration required, and application configuration and enhancement required.

Schedule

Project was initiated late in 2007, design phase was completed the third quarter of 2009, various phases of build are to be completed through-out 2011 and full deployment is estimated to be complete by the fourth quarter of 2012.

Sub-Project Estimate Summary

For the purposes of tracking costs, this project was planned and estimated in the following phases or "sub-projects".

Sub-Projects/Phases	2010	2011	2012	REMAINING YEARS
GIS Software	9921	14072	0	0
GIS Software Phase 1 2011 (Billable from SDG&E)	1659	1650	0	0
GIS Software – Trailing Charges for 2012	0	0	4378	0
TOTAL	11580	15722	4378	0

CAPITAL PROJECT WORKPAPER

PROJECT TITLE Single View of the Customer (SVOC)	BUDGET NO. 00810.0
WITNESS Richard Phillips	IN SERVICE DATE 12/31/2010

PROJECT COST (\$000 in 2009\$)	PRIOR YEARS	2009	2010	2011	2012	REMAINING YEARS	TOTAL
DIRECT LABOR		82	427	0	0	0	509
DIRECT NONLABOR		0	211	0	0	0	211
TOTAL DIRECT CAPITAL		82	638	0	0	0	720
COLLECTIBLE							
NET CAPITAL		82	638	0	0	0	720
FTE		.9	3.8	0	0	0	4.7

Business Purpose

This project is part of the larger OpEx 20/20 program to deploy technology to be used to improve operations, enhance the customer experience and provide more tools and information to front-line employees. The objective of this project is to enable a consolidated view of customer attributes from across the enterprise, inclusive of all channels. It will capture and integrate customer information, e.g., contact history, key attributes-language, premise inventory, behavior, demographics, programs, and needs, from across all interaction touch-points and disparate customer systems and provide this information in a fully integrated solution.

Physical Description

This project will implement software applications and the associated business processes that will enhance interaction with the customer, drive intention-based handling strategies, and increase understanding of what is happening with the customer. The project will develop a single view of the customer by enhancing legacy customer information systems, building out the presentation layer for the SoCalGas Customer Information System (CIS), adding a new user interface for the SDG&E Customer Information System (CISCO), implementing CRM for market and sell functionality, and building out analytics.

Project Justification

This project, as an integral part of the larger OpEx 20/20 program, was developed to make the utilities more efficient and to help meet future operational challenges. The solutions being implemented and the associated processes are key to achieving future productivity targets while continuing to maintain customer satisfaction and safety. The overall program O&M and Capital cost across both Utilities is \$545 million, and the overall Net Present Value ("NPV") benefit is \$251 million.

Forecast Methodology

Cost estimates were based on costs of similar projects completed at other companies of comparable size. Estimates were adjusted for numbers and types of users impacted, number of

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PROJECT TITLE Single View of the Customer (SVOC)	BUDGET NO. 00810.0
WITNESS Richard Phillips	IN SERVICE DATE 12/31/2010

legacy systems being replaced, types and volumes of data to be converted, system integration

Schedule

Project was initiated late in 2007, design phase is forecast to be complete the fourth quarter of 2010, build to be completed by the fourth quarter of 2010 and deployment complete by the fourth quarter of 2010.

Sub-Project Estimate Summary

For the purposes of tracking costs, this project was planned and estimated in the following phases or "sub-projects".

Sub-Projects/Phases	2010	2011	2012	REMAINING YEARS
SVOC	52	0	0	0
SVOC (Billable from SDG&E)	586	0	0	0
TOTAL	638	0	0	0

CAPITAL PROJECT WORKPAPER

PROJECT TITLE ICE Self Service	BUDGET NO. 00810.0
WITNESS Richard Phillips	IN SERVICE DATE 12/31/2012

PROJECT COST (\$000 in 2009\$)	PRIOR YEARS	2009	2010	2011	2012	REMAINING YEARS	TOTAL
DIRECT LABOR		119	406	898	562	0	1985
DIRECT NONLABOR		1605	672	2727	0	0	5004
TOTAL DIRECT CAPITAL		1724	1078	3625	562	0	6989
COLLECTIBLE							
NET CAPITAL		1724	1078	3625	562	0	6989
FTE		1.2	3.6	8.0	5.1	0	17.9

Business Purpose

This project is part of the larger OpEx 20/20 program to deploy technology to be used to improve operations, enhance the customer experience and provide more tools and information to front-line employees. The objectives of this project are to deliver differentiated treatment, intelligent customer interaction and drive self service automation across all channels.

Physical Description

This project will implement upgraded technology and functionality to increase self service. The project deliverables are implemented in phases which enable and complement each other as well as the other Customer Care projects. The Interactive Voice Response (IVR) system will be replaced to address technology obsolescence and standardize SoCalGas and SDG&E on a common platform. The project will develop a customer experience blueprint and utilize it to prioritize and enhance self-service targets and effectively deploy enabling speech/natural language capabilities across multiple channels. Online service offerings will be expanded to include turn-on, turn-off and changeover of utility services, ordering appliance servicing and establishing or changing payment arrangements online similar to the IVR system.

Project Justification

This project, as an integral part of the larger OpEx 20/20 program, was developed to make the utilities more efficient and to help meet future operational challenges. The solutions being implemented and the associated processes are key to achieving future productivity targets while continuing to maintain customer satisfaction and safety. The overall program O&M and Capital cost across both Utilities is \$545 million, and the overall Net Present Value ("NPV") benefit is \$251 million.

Forecast Methodology

Cost estimates were based on costs of similar projects completed at other companies of comparable size. Estimates were adjusted for numbers and types of users impacted, number of legacy systems being replaced, types and volumes of data to be converted, system integration

CAPITAL PROJECT WORKPAPER

PROJECT TITLE ICE Self Service	BUDGET NO. 00810.0
WITNESS Richard Phillips	IN SERVICE DATE 12/31/2012

required, and application configuration and enhancement required.

Schedule

Project was initiated in 2007, design phases for the various phases are forecast to be complete between the fourth quarter of 2010 and the third quarter of 2012, build to be completed between the first quarter of 2011 and the fourth quarter of 2012 with full deployment estimated to be complete by the fourth quarter of 2012.

Sub-Project Estimate Summary

For the purposes of tracking costs, this project was planned and estimated in the following phases or "sub-projects".

Sub-Projects/Phases	2010	2011	2012	REMAINING YEARS
OpEx 20/20 Customer Care – ICE Self Service IVR	878	915	172	0
OpEx 20/20 Customer Care – ICE Self Service HBA	0	2177	0	0
OpEx 20/20 Customer Care – ICE Self Service IVR (Billable from SDG&E)	200	533	390	0
TOTAL	1078	3625	562	0

CAPITAL PROJECT WORKPAPER

PROJECT TITLE Operational Insight Analytics (OIA)	BUDGET NO. 00810.0
WITNESS Richard Phillips	IN SERVICE DATE 12/31/2010

PROJECT COST (\$000 in 2009\$)	PRIOR YEARS	2009	2010	2011	2012	REMAINING YEARS	TOTAL
DIRECT LABOR		135	126	0	0	0	261
DIRECT NONLABOR		679	950	0	0	0	1629
TOTAL DIRECT CAPITAL		814	1076	0	0	0	1890
COLLECTIBLE							
NET CAPITAL		814	1076	0	0	0	1890
FTE		1.4	1.0	0	0	0	2.4

Business Purpose

This project is part of the larger OpEx 20/20 program to deploy technology to be used to improve operations, enhance the customer experience and provide more tools and information to front-line employees. The objectives of this project are to establish the capability to drive on-going analysis-based operational improvements and visibility to transform how customers interact with the company to increase operational efficiency and enable increases in the self service rate. It will automate current manual efforts by delivering end-to-end understanding of why customers are interacting with SEU, how they interacting and our ability to satisfy requests, and enables SEU to leverage critical customer intentions insight necessary to deliver an intelligent customer experience.

Physical Description

This project will implement technology solutions to conduct automated forms of analytic insight with respect to contact/web channel, operations, customer intentions and customer behavior. The systems implemented will leverage intentions-based data analysis by converting and mining quality recorded interactions. The project will provide analytical information and processes to be able to operate more efficiently by better understanding our operations, customer intentions, and communication channels; establish the capability to drive on-going “analysis-based” operational improvements and visibility to transform how customers interact with SEU.

Project Justification

This project, as an integral part of the larger OpEx 20/20 program, was developed to make the utilities more efficient and to help meet future operational challenges. The solutions being implemented and the associated processes are key to achieving future productivity targets while continuing to maintain customer satisfaction and safety. The overall program O&M and Capital cost across both Utilities is \$545 million, and the overall Net Present Value (“NPV”) benefit is \$251 million.

CAPITAL PROJECT WORKPAPER

PROJECT TITLE Operational Insight Analytics (OIA)	BUDGET NO. 00810.0
WITNESS Richard Phillips	IN SERVICE DATE 12/31/2010

Forecast Methodology

Cost estimates were based on costs of similar projects completed at other companies of comparable size. Estimates were adjusted for numbers and types of users impacted, number of legacy systems being replaced, types and volumes of data to be converted, system integration

Schedule

Project was initiated early in 2009, design phase was completed the first quarter of 2010, build is estimated to be complete by the third quarter of 2010 and deployment complete by the fourth quarter of 2010.

CAPITAL PROJECT WORKPAPER

PROJECT TITLE Field Force M&I	BUDGET NO. 00810.0
WITNESS Richard Phillips	IN SERVICE DATE 08/30/2010

PROJECT COST (\$000 in 2009\$)	PRIOR YEARS	2009	2010	2011	2012	REMAINING YEARS	TOTAL
DIRECT LABOR		1593	7099	0	0	0	8692
DIRECT NONLABOR		17098	21808	0	0	0	38906
TOTAL DIRECT CAPITAL		18691	28907	0	0	0	47598
COLLECTIBLE							
NET CAPITAL		18691	28907	0	0	0	47598
FTE		16.6	69.5	0	0	0	86.1

Business Purpose

This project is part of the larger OpEx 20/20 program to deploy technology to be used to improve operations, enhance the customer experience and provide more tools and information to front-line employees. The objectives of the Maintenance & Inspection project are to implement new technology and processes to streamline and automate the inspection and maintenance order generation, reconciliation and closure; provide one resource management approach and tool across all work types and service areas for scheduling and dispatch and; leverage communications networks, MDT and GPS technology to reduce paper-based tasks and provide access to back-office systems.

Physical Description

This project will implement software applications and the associated business processes to support the inspection and maintenance of gas and electric distribution facilities. The types of applications to be implemented include:

- **Work Management** – Provides a centralized, enterprise asset repository with accurate and real-time asset information; enables automation and integration of all M&I work; enables groupings of work based on geography, priority, need dates and skill requirements; automates pre-requisite management; enables the ability to optimize unit costs and; improves accuracy of cost accounting.
- **Forecasting, Scheduling and Dispatch** – Provides one resource management approach across all work types and service areas; automated assignment of work based on skill and geography; a single view of all work orders; daily and weekly schedules and routing, as well as real-time fill-in work; integrates real-time crew location with dispatching system to reduce travel time and time to emergency work and; formalizes prioritization of customer, regulatory and internal work commitments.
- **Mobile** – Provides the capability to reduce or eliminate paper-based tasks; generate orders in the field; provide fill-in work in the field.

CAPITAL PROJECT WORKPAPER

PROJECT TITLE Field Force M&I	BUDGET NO. 00810.0
WITNESS Richard Phillips	IN SERVICE DATE 08/30/2010

Mobile Data Terminals (MDTs) with GPS technology and wireless communication will also be deployed to field crews to enable scheduling daily, real-time work to crews and the automation of previously paper-based tasks such as timesheets, job closure, asset updates and mapping updates.

Project Justification

This project, as an integral part of the larger OpEx 20/20 program, was developed to make the utilities more efficient and to help meet future operational challenges. The solutions being implemented and the associated processes are key to achieving future productivity targets while continuing to maintain customer satisfaction and safety. The overall program O&M and Capital cost across both Utilities is \$545 million, and the overall Net Present Value ("NPV") benefit is \$251 million.

Forecast Methodology

Cost estimates were based on costs of similar projects completed at other companies of comparable size. Estimates were adjusted for numbers and types of users impacted, number of legacy systems being replaced, types and volumes of data to be converted, system integration required, and application configuration and enhancement required.

Schedule

Project was initiated late in 2007, design phase was completed the fourth quarter of 2008, build was completed the fourth quarter of 2009 and deployment is forecast to be complete by the fourth quarter of 2010.

CAPITAL PROJECT WORKPAPER

PROJECT TITLE Field Force M&I	BUDGET NO. 00810.0
WITNESS Richard Phillips	IN SERVICE DATE 08/30/2010

Sub-Project Estimate Summary

For the purposes of tracking costs, this project was planned and estimated in the following phases or “sub-projects”.

Sub-Projects/Phases	2010	2011	2012	REMAINING YEARS
Field Force Work Management – M&I Phase	11496	0	0	0
Field Force Mobile Enablement – M&I Phase	7950	0	0	0
Field Force Mobile Enablement – M&I MDTs Deployment	1008	0	0	0
Field Force Forecasting and Scheduling – M&I Phase 1 & 2	3445	0	0	0
Field Force Work Management – M&I Phase (Billable from SDG&E)	2386	0	0	0
Field Force Mobile – M&I Phase (Billable from SDG&E)	1144	0	0	0
Field Force Mobile – M&I MDTs Implementation (Billable from SDG&E)	129	0	0	0
Field Force Forecasting and Scheduling – M&I Phase 1 & 2 (Billable from SDG&E)	1349	0	0	0
TOTAL	28907	0	0	0

CAPITAL PROJECT WORKPAPER

PROJECT TITLE Field Force Construction	BUDGET NO. 00810.0
WITNESS Richard Phillips	IN SERVICE DATE 06/30/2012

PROJECT COST (\$000 in 2009\$)	PRIOR YEARS	2009	2010	2011	2012	REMAINING YEARS	TOTAL
DIRECT LABOR		0	2553	4382	3268	0	10203
DIRECT NONLABOR		0	4731	19699	7128	0	31558
TOTAL DIRECT CAPITAL		0	7284	24081	10396	0	41761
COLLECTIBLE							
NET CAPITAL		0	7284	24081	10396	0	41761
FTE		0	23.6	39.8	29.4	0	92.8

Business Purpose

This project is part of the larger OpEx 20/20 program to deploy technology to be used to improve operations, enhance the customer experience and provide more tools and information to front-line employees. The objectives of the Construction project are to implement new technology and processes to streamline and automate the planning, design, construction, reconciliation and closure processes; provide one resource management approach and tool across all work types and service areas, integrating M&I and construction activities, for scheduling and dispatch and; leverage communications networks, MDT and GPS technology to reduce paper-based tasks and provide access to back-office systems.

Physical Description

This project will implement software applications and the associated business processes to support the planning, design and construction of new gas and electric distribution facilities. The types of applications to be implemented include:

- **Work Management** – Provides the capability to effectively manage dependencies; leverage cost measurement and resource planning to optimize costs; improve materials management through the integration with supply management systems; consistent and accurate estimation and planning and; unit cost and performance management capabilities.
- **Forecasting, Scheduling and Dispatch** – Provides one resource management approach across all work types and service areas; automated assignment of work based on skill and geography; a single view of all work orders; daily and weekly schedules and routing, as well as real-time fill-in work; integrates real-time crew location with dispatching system to reduce travel time and time to emergency work and; formalizes prioritization of customer, regulatory and internal work commitments.
- **Mobile** – Provides the capability to reduce or eliminate paper-based tasks; generate orders in the field; provide fill-in work in the field.
- **Graphic Work Design** – Provides the ability to integrate labor standards, material standards and financial accounting in a geospatial environment; enable routine designs utilizing automated design tools and standard compatible unit design templates; reduce work closure tasks and; automate mapping tasks after work closure.

CAPITAL PROJECT WORKPAPER

PROJECT TITLE Field Force Construction	BUDGET NO. 00810.0
WITNESS Richard Phillips	IN SERVICE DATE 06/30/2012

Mobile Data Terminals (MDTs) with GPS technology and wireless communication will also be deployed to field crews to enable scheduling daily, real-time work to crews and the automation of previously paper-based tasks such as timesheets, job closure, asset updates and mapping updates.

Project Justification

This project, as an integral part of the larger OpEx 20/20 program, was developed to make the utilities more efficient and to help meet future operational challenges. The solutions being implemented and the associated processes are key to achieving future productivity targets while continuing to maintain customer satisfaction and safety. The overall program O&M and Capital cost across both Utilities is \$545 million, and the overall Net Present Value ("NPV") benefit is \$251 million.

Forecast Methodology

Cost estimates were based on costs of similar projects completed at other companies of comparable size. Estimates were adjusted for numbers and types of users impacted, number of legacy systems being replaced, types and volumes of data to be converted, system integration required, and application configuration and enhancement required.

Schedule

Project was initiated late in 2009, design phase is forecast to be complete the third quarter of 2011, build to be complete by the first quarter of 2012 and deployment complete by the fourth quarter of 2012.

Sub-Project Estimate Summary

For the purposes of tracking costs, this project was planned and estimated in the following phases or "sub-projects".

Sub-Projects/Phases COST (\$000 in 2009\$)	2010	2011	2012	REMAINING YEARS
Field Force – Construction Phase	5866	20121	8166	0
Field Force Construction Phase (Billable from SDG&E)	1418	3960	2230	0
TOTAL	7284	24081	10396	0

CAPITAL PROJECT WORKPAPER

PROJECT TITLE IT Infrastructure	BUDGET NO. 00810.0
WITNESS Richard Phillips	IN SERVICE DATE 12/31/2012

PROJECT COST (\$000 in 2009\$)	PRIOR YEARS	2009	2010	2011	2012	REMAINING YEARS	TOTAL
DIRECT LABOR		317	1373	1714	654	0	4058
DIRECT NONLABOR		9910	2886	4589	520	0	17905
TOTAL DIRECT CAPITAL		10227	4259	6303	1174	0	21963
COLLECTIBLE							
NET CAPITAL		10227	4259	6303	1174	0	21963
FTE		3.3	12.7	13.4	6.9	0	36.3

Business Purpose

This project is part of the larger OpEx 20/20 program to deploy technology to be used to improve operations, enhance the customer experience and provide more tools and information to front-line employees. The objective of the IT Infrastructure (ITI) is to provide the technical infrastructure and coordination at the program level to ensure consistency, standardization and integration of the overall OpEx 20/20 technology solution.

Physical Description

This project will implement hardware, software applications and the associated processes to implement the technical architecture, enterprise-level service oriented architecture, commercial WWAN connectivity and the server, network and security infrastructure required to support OpEx 20/20 applications.

Project Justification

This project, as an integral part of the larger OpEx 20/20 program, was developed to make the utilities more efficient and to help meet future operational challenges. The solutions being implemented and the associated processes are key to achieving future productivity targets while continuing to maintain customer satisfaction and safety. The overall program O&M and Capital cost across both Utilities is \$545 million, and the overall Net Present Value ("NPV") benefit is \$251 million.

Forecast Methodology

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