

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

Application No. 14-11-____
Exhibit No.: (SDG&E-17-CWP)

CAPITAL WORKPAPERS TO
PREPARED DIRECT TESTIMONY
OF JAMES C. SEIFERT
ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

NOVEMBER 2014



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

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San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Overall Summary For Exhibit No. SDG&E-17-CWP

Area:	FACILITIES/OTHER
Witness:	James C. Seifert

	In 2013 \$ (000)		
	Adjusted-Forecast		
	2014	2015	2016
A. Land Blanket	335	1,565	335
B. Structures & Improvement Blanket	368	4,306	4,000
C. Environmental/Safety Blanket	1,911	6,166	8,848
D. Misc. Equipment Blanket	300	600	600
E. Security Blanket	100	400	400
F. Infrastructure/Reliability Blanket	1,300	3,805	4,000
G. Remodel/Relocate/Reconfig Blanket	4,996	3,860	7,640
H. Business Unit Expansion Blanket	3,800	9,450	4,460
I. Century Park PHOTOVOLTAICS Installation	2,300	4,400	7,000
J. NGV Upgrades	298	1,900	1,647
K. RBDC UPS Electrical	752	2,000	4,000
L. Land Svc Archibus System	1,400	0	0
M. Mission Control Emergency Generator Replacement	1,600	0	0
Total	19,460	38,452	42,930

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Category: A. Land Blanket
Workpaper: 00700A

Summary for Category: A. Land Blanket

	In 2013\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	0	60	60	60
Non-Labor	0	275	1,505	275
NSE	0	0	0	0
Total	<u>0</u>	<u>335</u>	<u>1,565</u>	<u>335</u>
FTE	0.0	0.5	0.5	0.5

00700A Land Blanket

Labor	0	60	60	60
Non-Labor	0	275	1,505	275
NSE	0	0	0	0
Total	<u>0</u>	<u>335</u>	<u>1,565</u>	<u>335</u>
FTE	0.0	0.5	0.5	0.5

Note: Totals may include rounding differences.

Beginning of Workpaper Group
00700A - Land Blanket

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00700.0
 Category: A. Land Blanket
 Category-Sub: 1. Land Blanket
 Workpaper Group: 00700A - Land Blanket

Summary of Results (Constant 2013 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Years									
Labor	Zero-Based	0	0	0	0	0	60	60	60
Non-Labor	Zero-Based	0	0	0	0	0	275	1,505	275
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	335	1,565	335
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5

Business Purpose:

To fund minor land rights, maintenance of fee owned vacant property and landscape projects in order to adequately support Company Operations; manage and protect Company property; and maintain or improve the value of Company real property. Provides the opportunity to maintain and/or improve the opportunity to obtain highest rate of return on rental, lease or sale of Company property, thereby increasing revenue and reducing customer rates.

Physical Description:

Work includes installation of new landscaping or renovation of existing landscape and irrigation systems and other improvements on existing Company property and various Company property works (i.e. Substations, transmission line right-of-way) including but not limited to fencing, masonry walls, access gates, signs, grading, paving, drainage improvements, landscaping and landscape irrigation.

Project Justification:

Various improvements and site work (such as fencing and gates) are necessary to; reduce potential vandalism, unauthorized dumping, illegal trespassing and other unauthorized uses of Company property. Without these improvements, the Company would lose revenue (from sale, lease license or rent) due to lower property value, resulting from inadequate protection or maintenance of Company property. Renovation of existing landscape and irrigation systems is needed to protect company facilities, such as substations from soil erosion.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Budget Code: 00700.0
Category: A. Land Blanket
Category-Sub: 1. Land Blanket
Workpaper Group: 00700A - Land Blanket

Forecast Methodology:

Labor - Zero-Based

Estimated blanket budget is based upon historical spending and future forecast necessary to meet the company compliance and service level agreement.

Non-Labor - Zero-Based

Estimated blanket budget is based upon historical spending and future forecast necessary to meet the company compliance and service level agreement.

NSE - Zero-Based

N/A

**Beginning of Workpaper Sub Details for
Workpaper Group 00700A**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00700.0
 Category: A. Land Blanket
 Category-Sub: 1. Land Blanket
 Workpaper Group: 00700A - Land Blanket
 Workpaper Detail: 00700A.001 - Work includes installation of new landscaping or renovation of existing landscape and i
 In-Service Date: Not Applicable
 Description:

To fund minor land land rights maintenance of fee owned vacant property and landscape projects in order to adequately support Company Operations; manage and protect Company property; and maintain or improve the value of Company real property. Provides the opportunity to maintain and/or improve the opportunity to obtain highest rate of return on rental, lease or sale of Company property, thereby increasing revenue and reducing customer rates.

Forecast In 2013 \$(000)			
Years	2014	2015	2016
Labor	60	60	60
Non-Labor	275	275	275
NSE	0	0	0
Total	335	335	335
FTE	0.5	0.5	0.5

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00700.0
 Category: A. Land Blanket
 Category-Sub: 1. Land Blanket
 Workpaper Group: 00700A - Land Blanket
 Workpaper Detail: 00700A.002 - Century Park Drought Tolerance Landscaping
 In-Service Date: 12/31/2015
 Description:

Work includes installation of new landscaping or renovation of existing landscape and irrigation systems and other improvements on existing Company property and various Company property works (i.e.: substations, transmission line right-of-way) including but not limited to fencing, masonry walls, access gates, signs, grading, paving, drainage improvements, landscaping and landscape irrigation.

Forecast In 2013 \$(000)			
Years	2014	2015	2016
Labor	0	0	0
Non-Labor	0	921	0
NSE	0	0	0
Total	0	921	0
FTE	0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00700.0
 Category: A. Land Blanket
 Category-Sub: 1. Land Blanket
 Workpaper Group: 00700A - Land Blanket
 Workpaper Detail: 00700A.003 - Kearny Deionized Water Reclamation
 In-Service Date: 12/31/2015
 Description:

Forecast In 2013 \$(000)					
Years		2014	2015	2016	
Labor		0	0	0	
Non-Labor		0	309	0	
NSE		0	0	0	
	Total	0	309	0	
FTE		0.0	0.0	0.0	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Category: B. Structures & Improvement Blanket
Workpaper: 00701A

Summary for Category: B. Structures & Improvement Blanket

	In 2013\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	0	8	14	0
Non-Labor	0	360	4,292	4,000
NSE	0	0	0	0
Total	0	368	4,306	4,000
FTE	0.0	0.1	0.2	0.0

00701A Structures & Improvement Blanket

Labor	0	8	14	0
Non-Labor	0	360	4,292	4,000
NSE	0	0	0	0
Total	0	368	4,306	4,000
FTE	0.0	0.1	0.2	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
00701A - Structures & Improvement Blanket

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00701.0
 Category: B. Structures & Improvement Blanket
 Category-Sub: 1. Structures & Improvement Blanket
 Workpaper Group: 00701A - Structures & Improvement Blanket

Summary of Results (Constant 2013 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Years									
Labor	Zero-Based	0	0	0	0	0	8	14	0
Non-Labor	Zero-Based	0	0	0	0	0	360	4,292	4,000
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	368	4,306	4,000
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0

Business Purpose:

This budget funds minor building modifications, upgrades and facility improvements to adequately support corporate business initiatives, to extend the life of the asset, or increase the functionality of a building or site. Small projects under \$1M are bundled when possible for economies of scale in sourcing. These projects vary year to year based on need, but address replacement of basic building systems. Each year requirements are prioritized to manage the facility assets, keep the employees safe and optimize real estate value. Scopes of work may include modernization projects, improvements to implement best practices, and/or offer best alternatives for cost avoidance compared to other scenarios.

Physical Description:

Small project types covered in this budget code: Exterior Lighting; Fence;Paving; Roofing; Flooring; Storage and Sheds

Project Justification:

Facilities Operations and the business units identify requirements based on criticality of the facility, the age of the asset, and the implications for failure to complete the replacement or modification. Failure to implement these projects could translate into reduced safety, disruption to the business unit, inability to meet business unit operational needs, higher costs to maintain and repair, and asset devaluation. Projects are planned according to the availability of resources, in some cases weather, lead times and priorities. Like projects are bundled for economies of scale for better pricing in sourcing. Construction calculations are supported by industry professionals, including licensed architects and designers, construction industry professionals, and IT domain experts using standard construction estimation practices. Project managers are evaluated on adherence to budget and schedule. Individual workorders and project plans are developed for execution of individual projects.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Budget Code: 00701.0
Category: B. Structures & Improvement Blanket
Category-Sub: 1. Structures & Improvement Blanket
Workpaper Group: 00701A - Structures & Improvement Blanket

Forecast Methodology:

Labor - Zero-Based

Estimated blanket budget is based upon historical spending and future forecast necessary to meet the company compliance and service level agreement.

Non-Labor - Zero-Based

Estimated blanket budget is based upon historical spending and future forecast necessary to meet the company compliance and service level agreement.

NSE - Zero-Based

N/A

**Beginning of Workpaper Sub Details for
Workpaper Group 00701A**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00701.0
 Category: B. Structures & Improvement Blanket
 Category-Sub: 1. Structures & Improvement Blanket
 Workpaper Group: 00701A - Structures & Improvement Blanket
 Workpaper Detail: 00701A.001 - Structures & Improvement Blanket

In-Service Date: Not Applicable

Description:

This budget funds minor building modifications upgrades and facility improvements to adequately support corporate business initiatives, to extend the life of the asset, or increase the functionality of a building or site. Small projects under \$1M are bundled when possible for economies of scale in sourcing. These projects vary year to year based on need, but address replacement of basic building systems. Each year requirements are prioritized to manage the facility assets, keep the employees safe and optimize real estate value. Scopes of work may include modernization projects, improvements to implement best practices, and/or offer best alternatives for cost avoidance compared to other scenarios.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		8	14	0
Non-Labor		360	2,592	4,000
NSE		0	0	0
	Total	368	2,606	4,000
FTE		0.1	0.2	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00701.0
 Category: B. Structures & Improvement Blanket
 Category-Sub: 1. Structures & Improvement Blanket
 Workpaper Group: 00701A - Structures & Improvement Blanket
 Workpaper Detail: 00701A.002 - Eastern C&O Line Truck Canopy Installation
 In-Service Date: 12/31/2015
 Description:

This budget fund the construction of canopy installations over the line trucks at the Eastern C&O operating district.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		0	861	0
NSE		0	0	0
	Total	0	861	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00701.0
 Category: B. Structures & Improvement Blanket
 Category-Sub: 1. Structures & Improvement Blanket
 Workpaper Group: 00701A - Structures & Improvement Blanket
 Workpaper Detail: 00701A.003 - Eastern C&O new parking lot
 In-Service Date: 12/31/2015

Description:

This budget funds the construction of new parking lot the Eastern C&O operating district.

Forecast In 2013 \$(000)				
	Years	<u>2014</u>	<u>2015</u>	<u>2016</u>
Labor		0	0	0
Non-Labor		0	839	0
NSE		0	0	0
	Total	<u>0</u>	<u>839</u>	<u>0</u>
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Category: C. Environmental/Safety Blanket
 Workpaper: 00703A

Summary for Category: C. Environmental/Safety Blanket

	In 2013\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	0	10	10	0
Non-Labor	0	1,901	6,156	8,848
NSE	0	0	0	0
Total	0	1,911	6,166	8,848
FTE	0.0	0.1	0.1	0.0

00703A Environmental/Safety Blanket

Labor	0	10	10	0
Non-Labor	0	1,901	6,156	8,848
NSE	0	0	0	0
Total	0	1,911	6,166	8,848
FTE	0.0	0.1	0.1	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
00703A - Environmental/Safety Blanket

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00703.0
 Category: C. Environmental/Safety Blanket
 Category-Sub: 1. Environmental/Safety Blanket
 Workpaper Group: 00703A - Environmental/Safety Blanket

Summary of Results (Constant 2013 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Years									
Labor	Zero-Based	0	0	0	0	0	10	10	0
Non-Labor	Zero-Based	0	0	0	0	0	1,901	6,156	8,848
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	1,911	6,166	8,848
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0

Business Purpose:

This budget funds building and system modifications, site upgrades, and other facility improvements directed to safeguard SDG&E occupied facilities and sites, protect employees and company property, adhere to codes and regulations, and reduce corporate liability in the safety and environmental areas. Small projects under \$1M are bundled when possible for economies of scale in sourcing. These projects vary year to year based on changes to existing or proposed regulations.

Physical Description:

Common project types covered in this budget code are improvements to meet stormwater management regulations. Stormwater compliance includes physical changes to the site including drainage control, curbs and berms, coverings to manage the flow of stormwater and other best management practices. Concrete pads, hazardous waste storage and other requirements to mitigate environmental risk are covered in this blanket. Safety projects vary in nature, but can include communication systems, fall protection, or other improvements to reduce employee risk. Underground storage tank compliance issues and enhanced vapor recovery system upgrades to the fueling systems are included.

Project Justification:

Facilities Operations and the business units identify requirements based on codes, regulations, and best management practices for environmental and safety. Failure to complete can result in increased risk, NOVs and fines.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Budget Code: 00703.0
Category: C. Environmental/Safety Blanket
Category-Sub: 1. Environmental/Safety Blanket
Workpaper Group: 00703A - Environmental/Safety Blanket

Forecast Methodology:

Labor - Zero-Based

Estimated blanket budget is based upon historical spending and future forecast necessary to meet the company compliance and service level agreement.

Non-Labor - Zero-Based

Estimated blanket budget is based upon historical spending and future forecast necessary to meet the company compliance and service level agreement.

NSE - Zero-Based

N/A

**Beginning of Workpaper Sub Details for
Workpaper Group 00703A**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00703.0
 Category: C. Environmental/Safety Blanket
 Category-Sub: 1. Environmental/Safety Blanket
 Workpaper Group: 00703A - Environmental/Safety Blanket
 Workpaper Detail: 00703A.001 - Environmental/Safety Blanket

In-Service Date: Not Applicable

Description:

This budget funds building and system modifications site upgrades, and other facility improvements directed to safeguard SDG&E-occupied facilities and sites, protect employees and company property, adhere to codes and regulations, and ensure compliance with safety and environmental requirements. Small projects under \$1 million are bundled when possible for economies of scale in sourcing. These projects vary year to year based on changes to existing or proposed regulations.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		10	10	0
Non-Labor		348	540	2,500
NSE		0	0	0
	Total	358	550	2,500
FTE		0.1	0.1	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00703.0
 Category: C. Environmental/Safety Blanket
 Category-Sub: 1. Environmental/Safety Blanket
 Workpaper Group: 00703A - Environmental/Safety Blanket
 Workpaper Detail: 00703A.002 - Miramar Scrap Metal Bin Covers
 In-Service Date: 12/31/2014

Description:

Design and construct permanent structure over scrap metal bins to prevent rain water intrusion and potential storm water run-off issues.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		250	0	0
NSE		0	0	0
	Total	250	0	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00703.0
 Category: C. Environmental/Safety Blanket
 Category-Sub: 1. Environmental/Safety Blanket
 Workpaper Group: 00703A - Environmental/Safety Blanket
 Workpaper Detail: 00703A.003 - Mission Fire panel replacement
 In-Service Date: 12/31/2015

Description:

Replace fire panels at Mission Control Telecom and Skills Training buildings.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		0	250	0
NSE		0	0	0
	Total	0	250	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00703.0
 Category: C. Environmental/Safety Blanket
 Category-Sub: 1. Environmental/Safety Blanket
 Workpaper Group: 00703A - Environmental/Safety Blanket
 Workpaper Detail: 00703A.004 - RBDC Warehouse Sprinkler Upgrades
 In-Service Date: 12/31/2014

Description:

Provide Project Management Services Design Engineering work and construction related activities to upgrade the existing fire sprinkler system. This includes demolition of the existing fire sprinkler system, permits and plan check fees as necessary. Provide and install upsized sprinkler piping, flexible seismic joint between the existing and new structures. Provide upright ELO (Extra Large Orifice) storage type sprinkler heads. The above described work will complete the design-build of the sprinkler upgrades.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		65	0	0
NSE		0	0	0
	Total	65	0	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00703.0
 Category: C. Environmental/Safety Blanket
 Category-Sub: 1. Environmental/Safety Blanket
 Workpaper Group: 00703A - Environmental/Safety Blanket
 Workpaper Detail: 00703A.005 - CP ADA Access Improvements
 In-Service Date: 12/31/2015

Description:

Provide engineering and project management necessary to complete demolition, redesign and construction of the parking area and adjacent sidewalk in front of each building for improved ADA access. Remove the existing concrete peninsula and provide additional, code compliant, ADA parking and elevation changes from parking to the building entrance.

Forecast In 2013 \$(000)					
	Years	2014	2015	2016	
Labor		0	0	0	
Non-Labor		0	1,492	0	
NSE		0	0	0	
	Total	0	1,492	0	
FTE		0.0	0.0	0.0	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00703.0
 Category: C. Environmental/Safety Blanket
 Category-Sub: 1. Environmental/Safety Blanket
 Workpaper Group: 00703A - Environmental/Safety Blanket
 Workpaper Detail: 00703A.006 - Kearny Scrap Metal Bin Covers
 In-Service Date: 12/31/2015

Description:

Design and construct permanent structure over scrap metal bins to prevent rain water intrusion and potential storm water run-off issues.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		0	700	0
NSE		0	0	0
	Total	0	700	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00703.0
 Category: C. Environmental/Safety Blanket
 Category-Sub: 1. Environmental/Safety Blanket
 Workpaper Group: 00703A - Environmental/Safety Blanket
 Workpaper Detail: 00703A.007 - R-NERBA MS4 Blanket Water Quality Mitigation
 In-Service Date: 12/31/2016
 Description:

The San Diego Regional Water Quality Control Board adopted the revised Municipal Separate Storm Sewer System (MS4) Permit which requires each of the co-permittees to reduce the discharge of pollutants in storm water to the Maximum Extent Practicable through requirements for construction activities and for areas of existing development (e.g., commercial and industrial facilities). The co-permittees' must develop & implement minimum jurisdictional requirements & watershed based plans (Water Quality Improvement Plans). Requirements will not be finalized until mid to late 2015. SDG&E's Metro Construction & Operation site has high potential for capital costs impacts to implement modifications to the facility, such as, modify outdoor storage of equipment. Because of the regulatory uncertainty & potential high costs, the MS4 costs are requested to be tracked in SDG&E's NERBA (New Environmental Regulatory Balancing Account). [54k sq. feet covers x \$174/sq. ft. = \$9.5 M]

Forecast In 2013 \$(000)			
Years	2014	2015	2016
Labor	0	0	0
Non-Labor	0	3,174	6,348
NSE	0	0	0
Total	0	3,174	6,348
FTE	0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00703.0
 Category: C. Environmental/Safety Blanket
 Category-Sub: 1. Environmental/Safety Blanket
 Workpaper Group: 00703A - Environmental/Safety Blanket
 Workpaper Detail: 00703A.008 - Miramar fuel tanker containment
 In-Service Date: 12/31/2014

Description:

Provide project management services and construction related activities needed to design and construct a 30'x30' concrete fuel containment area. The truck drive-in basin shall be a sloped concrete drive to a fuel pit with a maximum capacity of 1400 Gallons as required by the SDG&E Spill Prevention Control Countermeasure (SPCC) Plan. A separate fuel basin (or pit) will be located on the low end of the sloped containment area, flush with the sloped drive and will have a metal grate for fuel evaporation. The pit will be supplied with a valved electric sump pump for removing the fuel spill. The containment area will include an 18" high wall on three sides and a 12 " rounded berm on the entrance side. The containment area will have a light gauge metal roof to divert rain water, open on all 4-sides and supported by 4-heavy gauge metal posts. The roof will be sloped toward the pre-dominant wind direction (to reduce uplift potential) with explosion proof L.E.D. area lighting on the underside. All 4-corners of the structure will have heavy duty truck safety bollards painted yellow.

Forecast In 2013 \$(000)					
	Years	2014	2015	2016	
Labor		0	0	0	
Non-Labor		472	0	0	
NSE		0	0	0	
	Total	472	0	0	
FTE		0.0	0.0	0.0	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00703.0
 Category: C. Environmental/Safety Blanket
 Category-Sub: 1. Environmental/Safety Blanket
 Workpaper Group: 00703A - Environmental/Safety Blanket
 Workpaper Detail: 00703A.009 - Beach Cities Fuel Tanker Containment
 In-Service Date: 12/31/2014

Description:

Provide project management services and construction related activities needed to design and construct a 30'x30' concrete fuel containment area. The truck drive-in basin shall be a sloped concrete drive to a fuel pit with a maximum capacity of 1400 Gallons as required by the SDG&E Spill Prevention Control Countermeasure (SPCC) Plan. A separate fuel basin (or pit) will be located on the low end of the sloped containment area, flush with the sloped drive and will have a metal grate for fuel evaporation. The pit will be supplied with a valved electric sump pump for removing the fuel spill. The containment area will include an 18" high wall on three sides and a 12 " rounded berm on the entrance side. The containment area will have a light gauge metal roof to divert rain water, open on all 4-sides and supported by 4-heavy gauge metal posts. The roof will be sloped toward the pre-dominant wind direction (to reduce uplift potential) with explosion proof L.E.D. area lighting on the underside. All 4-corners of the structure will have heavy duty truck safety bollards painted yellow.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		294	0	0
NSE		0	0	0
	Total	294	0	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00703.0
 Category: C. Environmental/Safety Blanket
 Category-Sub: 1. Environmental/Safety Blanket
 Workpaper Group: 00703A - Environmental/Safety Blanket
 Workpaper Detail: 00703A.010 - Metro Fuel Tanker Containment

In-Service Date: 12/31/2014

Description:

Provide project management services and construction related activities needed to design and construct a 30'x30' concrete fuel containment area. The truck drive-in basin shall be a sloped concrete drive to a fuel pit with a maximum capacity of 1400 Gallons as required by the SDG&E Spill Prevention Control Countermeasure (SPCC) Plan. A separate fuel basin (or pit) will be located on the low end of the sloped containment area, flush with the sloped drive and will have a metal grate for fuel evaporation. The pit will be supplied with a valved electric sump pump for removing the fuel spill. The containment area will include an 18" high wall on three sides and a 12 " rounded berm on the entrance side. The containment area will have a light gauge metal roof to divert rain water, open on all 4-sides and supported by 4-heavy gauge metal posts. The roof will be sloped toward the pre-dominant wind direction (to reduce uplift potential) with explosion proof L.E.D. area lighting on the underside. All 4-corners of the structure will have heavy duty truck safety bollards painted yellow.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		472	0	0
NSE		0	0	0
	Total	472	0	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Category: D. Misc. Equipment Blanket
Workpaper: 00705A

Summary for Category: D. Misc. Equipment Blanket

	In 2013\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	0	0	0	0
Non-Labor	0	300	600	600
NSE	0	0	0	0
Total	<u>0</u>	<u>300</u>	<u>600</u>	<u>600</u>
FTE	0.0	0.0	0.0	0.0

00705A Misc. Equipment Blanket

Labor	0	0	0	0
Non-Labor	0	300	600	600
NSE	0	0	0	0
Total	<u>0</u>	<u>300</u>	<u>600</u>	<u>600</u>
FTE	0.0	0.0	0.0	0.0

Note: Totals may include rounding differences.

**Beginning of Workpaper Group
00705A - Misc. Equipment Blanket**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00705.0
 Category: D. Misc. Equipment Blanket
 Category-Sub: 1. Misc. Equipment Blanket
 Workpaper Group: 00705A - Misc. Equipment Blanket

Summary of Results (Constant 2013 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Labor	Zero-Based	0	0	0	0	0	0	0	
Non-Labor	Zero-Based	0	0	0	0	0	300	600	
NSE	Zero-Based	0	0	0	0	0	0	0	
Total		0	0	0	0	0	300	600	
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Business Purpose:

This budget funds the purchase and installation of miscellaneous equipment, which does not fall under the scope of any other capital project. This equipment supports the effective operations of the requesting department and its operations. The blanket benefits numerous departments throughout the company by funding equipment purchases, both planned and unplanned due to breakdowns, which enable employees to work efficiently and effectively.

Physical Description:

Small project types covered in this budget code are replacements of small equipment in the food preparation and kitchen services areas, machines (jacks or hoists) or other specialized mechanical equipment used in the fleet garages (attached to the building), lab equipment for sampling of soils and wastewater, and the like.

Project Justification:

Facilities Operations and the business units identify requirements based on criticality of the facility, the age of the equipment and life cycle, and the implications for failure to complete the replacement or modification. Equipment is replaced at the end of the life cycle, if system failure occurs, for accuracy or reliability of operations, or if excessive maintenance and repair costs point to replacement, and to address technology obsolescence. Equipment keep day to day operations functional. Failure to implement these projects could translate into reduced safety, disruption to the business unit, inability to meet business unit operational needs, higher costs to maintain and repair, and asset devaluation.

Industry professionals, proposals and similar projects provide support for estimates. Project managers, if required to manage scope, are evaluated on adherence to budget and schedule. Standard procurement practices and procedures are used for acquisition of equipment and installation services

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Budget Code: 00705.0
Category: D. Misc. Equipment Blanket
Category-Sub: 1. Misc. Equipment Blanket
Workpaper Group: 00705A - Misc. Equipment Blanket

Forecast Methodology:

Labor - Zero-Based

Estimated blanket budget is based upon historical spending and future forecast necessary to meet the company compliance and service level agreement.

Non-Labor - Zero-Based

Estimated blanket budget is based upon historical spending and future forecast necessary to meet the company compliance and service level agreement.

NSE - Zero-Based

N/A

**Beginning of Workpaper Sub Details for
Workpaper Group 00705A**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00705.0
 Category: D. Misc. Equipment Blanket
 Category-Sub: 1. Misc. Equipment Blanket
 Workpaper Group: 00705A - Misc. Equipment Blanket
 Workpaper Detail: 00705A.001 - Miscellaneous Equipment Blanket

In-Service Date: Not Applicable

Description:

This budget funds the purchase and installation of miscellaneous equipment, which does not fall under the scope of any other capital project. This equipment supports the effective operations of the requesting department and its operations. The blanket benefits numerous departments throughout the company by funding equipment purchases, both planned and unplanned due to breakdowns, which enable employees to work efficiently and effectively.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		300	600	600
NSE		0	0	0
	Total	300	600	600
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Category: E. Security Blanket
Workpaper: 00707A

Summary for Category: E. Security Blanket

	In 2013\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	0	0	0	0
Non-Labor	0	100	400	400
NSE	0	0	0	0
Total	<u>0</u>	<u>100</u>	<u>400</u>	<u>400</u>
FTE	0.0	0.0	0.0	0.0

00707A Security Blanket

Labor	0	0	0	0
Non-Labor	0	100	400	400
NSE	0	0	0	0
Total	<u>0</u>	<u>100</u>	<u>400</u>	<u>400</u>
FTE	0.0	0.0	0.0	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
00707A - Security Blanket

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00707.0
 Category: E. Security Blanket
 Category-Sub: 1. Security Blanket
 Workpaper Group: 00707A - Security Blanket

Summary of Results (Constant 2013 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Years									
Labor	Zero-Based	0	0	0	0	0	0	0	0
Non-Labor	Zero-Based	0	0	0	0	0	100	400	400
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	100	400	400
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Business Purpose:

This budget funds minor building modifications, upgrades, and facility improvements to safeguard SDG&E occupied facilities and sites, protect employees and company property, and reduce corporate liability. Small projects under \$1M are bundled when possible for economies of scale in sourcing. Project requirements are prioritized based on corporate security recommendations. Scopes of work may vary year to year, based on identification of risks, but all address the security of the company employees, operations, and assets.

Physical Description:

Common project types covered in this budget code are: Card Readers and Security Monitoring Systems; Enhancements that increase security or lengthen life cycle of security systems

Project Justification:

Facilities Operations, Audit, Security, and the business units identify requirements and prioritize based on risk assessments and consequences of not completing the project. The safety and security of the employees is a primary focus. Failure to implement these projects could translate into increased risk and exposure. Projects proposed improve safeguards at company locations and are designed to protect company materials and assets. Projects are planned according to the level of risk, availability of resources. Like projects are bundled for economies of scale for better pricing in sourcing if possible. Construction calculations are supported by industry professionals, including licensed architects and designers, construction industry professionals, and IT domain experts using standard construction estimation practices. Project managers are evaluated on adherence to budget and schedule. Individual work orders and project plans are developed for execution of individual projects.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Budget Code: 00707.0
Category: E. Security Blanket
Category-Sub: 1. Security Blanket
Workpaper Group: 00707A - Security Blanket

Forecast Methodology:

Labor - Zero-Based

Estimated blanket budget is based upon historical spending and future forecast necessary to meet the company compliance and service level agreement.

Non-Labor - Zero-Based

Estimated blanket budget is based upon historical spending and future forecast necessary to meet the company compliance and service level agreement.

NSE - Zero-Based

N/A

**Beginning of Workpaper Sub Details for
Workpaper Group 00707A**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00707.0
 Category: E. Security Blanket
 Category-Sub: 1. Security Blanket
 Workpaper Group: 00707A - Security Blanket
 Workpaper Detail: 00707A.001 - Security Blanket

In-Service Date: Not Applicable

Description:

This budget funds minor building modifications upgrades and facility improvements to safeguard SDG&E occupied facilities and sites, protect employees and company property, and reduce corporate liability. Small projects under \$1M are bundled when possible for economies of scale in sourcing. Project requirements are prioritized based on corporate security recommendations. Scopes of work may vary year to year, based on identification of risks, but all address the security of the company employees, operations, and assets.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		100	400	400
NSE		0	0	0
	Total	100	400	400
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Category: F. Infrastructure/Reliability Blanket
Workpaper: 00708A

Summary for Category: F. Infrastructure/Reliability Blanket

	In 2013\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	0	0	0	0
Non-Labor	0	1,300	3,805	4,000
NSE	0	0	0	0
Total	0	1,300	3,805	4,000
FTE	0.0	0.0	0.0	0.0

00708A Infrastructure/Reliability Blanket

Labor	0	0	0	0
Non-Labor	0	1,300	3,805	4,000
NSE	0	0	0	0
Total	0	1,300	3,805	4,000
FTE	0.0	0.0	0.0	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
00708A - Infrastructure/Reliability Blanket

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00708.0
 Category: F. Infrastructure/Reliability Blanket
 Category-Sub: 1. Infrastructure/Reliability Blanket
 Workpaper Group: 00708A - Infrastructure/Reliability Blanket

Summary of Results (Constant 2013 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Years									
Labor	Zero-Based	0	0	0	0	0	0	0	
Non-Labor	Zero-Based	0	0	0	0	0	1,300	3,805	4,000
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	1,300	3,805	4,000
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Business Purpose:

This budget funds building facility infrastructure to support basic building operations, as well as requirements specific to the business unit operations and initiatives. Projects include replacement of systems and major equipment affecting reliability, comfort and safety of employees at numerous sites throughout the portfolio. Small projects under \$1M are bundled when possible for economies of scale in sourcing. These projects vary year to year based on need, but address replacement of basic building infrastructure and systems. Each year requirements are prioritized to manage the facility assets, keep the employees safe and optimize real estate value. Scopes of work may include modernization projects, improvements to implement best practices, and/or offer best alternatives for cost avoidance compared to other scenarios.

Physical Description:

Small project types covered in this budget code: Chillers; Cooling systems; Air Handlers and Economizers; HVAC Replacements, Modifications and System Upgrades; DDC Controls; Generators; UPS systems; Server Room Infrastructure (including seismic bracing)
 Facilities Lighting upgrades and Lighting system replacements.

Project Justification:

Facilities Operations identify requirements based on criticality of the facility, the age of the asset, and the implications for failure to complete the replacement or modification. Failure to implement these projects could translate into reduced safety, disruption to the business unit, inability to meet business unit operational needs, higher costs to maintain and repair, and asset devaluation. Projects are planned according to the availability of resources, in some cases weather, lead times and priorities. Like projects are bundled for economies of scale for better pricing in sourcing. Construction calculations are supported by industry professionals, including licensed architects and designers, construction industry professionals, and IT domain experts using standard construction estimation practices. Project managers are evaluated on adherence to budget and schedule. Individual work orders and project plans are developed for execution of individual projects. The 2014–2016 dollars are expected to increase due to larger projects and increased cost of construction.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Budget Code: 00708.0
Category: F. Infrastructure/Reliability Blanket
Category-Sub: 1. Infrastructure/Reliability Blanket
Workpaper Group: 00708A - Infrastructure/Reliability Blanket

Forecast Methodology:

Labor - Zero-Based

Estimated blanket budget is based upon future forecast as necessary to meet the company compliance and service level agreement.

Non-Labor - Zero-Based

Estimated blanket budget is based upon future forecast as necessary to meet the company compliance and service level agreement.

NSE - Zero-Based

N/A

**Beginning of Workpaper Sub Details for
Workpaper Group 00708A**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00708.0
 Category: F. Infrastructure/Reliability Blanket
 Category-Sub: 1. Infrastructure/Reliability Blanket
 Workpaper Group: 00708A - Infrastructure/Reliability Blanket
 Workpaper Detail: 00708A.001 - Infrastructure/Reliability Blanket
 In-Service Date: Not Applicable

Description:

This budget funds building facility infrastructure to support basic building operations, as well as requirements specific to the business unit operations and initiatives. Projects include replacement of systems and major equipment affecting reliability, comfort and safety of employees at numerous sites throughout the portfolio. Small projects under \$1 million are bundled when possible for economies of scale in sourcing. These projects vary year to year based on need, but address replacement of basic building infrastructure and systems. Each year requirements are prioritized to manage the facility assets, keep the employees safe and optimize real estate value. Scope of work may include modernization projects, improvements to implement best practices, and/or offer best alternatives for cost avoidance compared to other scenarios.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		1,000	2,500	4,000
NSE		0	0	0
	Total	1,000	2,500	4,000
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00708.0
 Category: F. Infrastructure/Reliability Blanket
 Category-Sub: 1. Infrastructure/Reliability Blanket
 Workpaper Group: 00708A - Infrastructure/Reliability Blanket
 Workpaper Detail: 00708A.002 - RBDC Halon System Replacement
 In-Service Date: 12/31/2015

Description:

Provide engineering project management materials and labor to convert the existing Halon system to an approved engineered suppression agent system. Halon fire suppression systems must be removed from service. To properly protect critical assets, a new, approved, engineered suppression agent must be installed. Convert the existing Halon system to a new Sapphire Clean Agent Fire Suppression System.

Forecast In 2013 \$(000)			
Years	2014	2015	2016
Labor	0	0	0
Non-Labor	0	555	0
NSE	0	0	0
Total	0	555	0
FTE	0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00708.0
 Category: F. Infrastructure/Reliability Blanket
 Category-Sub: 1. Infrastructure/Reliability Blanket
 Workpaper Group: 00708A - Infrastructure/Reliability Blanket
 Workpaper Detail: 00708A.003 - Mission Control Switchboard Replacement
 In-Service Date: 12/31/2015

Description:

Funding to replace Electric Service Switchboard.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		0	750	0
NSE		0	0	0
	Total	0	750	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00708.0
 Category: F. Infrastructure/Reliability Blanket
 Category-Sub: 1. Infrastructure/Reliability Blanket
 Workpaper Group: 00708A - Infrastructure/Reliability Blanket
 Workpaper Detail: 00708A.004 - Metro Bldg B GODO Generator replacement
 In-Service Date: 12/31/2014
 Description:

Replace the existing 200kw generator and ATS.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		300	0	0
NSE		0	0	0
	Total	300	0	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Category: G. Remodel/Relocate/Reconfig Blanket
 Workpaper: 00709A

Summary for Category: G. Remodel/Relocate/Reconfig Blanket

	In 2013\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	0	0	0	0
Non-Labor	0	4,996	3,860	7,640
NSE	0	0	0	0
Total	0	4,996	3,860	7,640
FTE	0.0	0.0	0.0	0.0

00709A Remodel/Relocate/Reconfig Blanket

Labor	0	0	0	0
Non-Labor	0	4,996	3,860	7,640
NSE	0	0	0	0
Total	0	4,996	3,860	7,640
FTE	0.0	0.0	0.0	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
00709A - Remodel/Relocate/Reconfig Blanket

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00709.0
 Category: G. Remodel/Relocate/Reconfig Blanket
 Category-Sub: 1. Remodel/Relocate/Reconfig Blanket
 Workpaper Group: 00709A - Remodel/Relocate/Reconfig Blanket

Summary of Results (Constant 2013 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Years									
Labor	Zero-Based	0	0	0	0	0	0	0	0
Non-Labor	Zero-Based	0	0	0	0	0	4,996	3,860	7,640
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	4,996	3,860	7,640
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Business Purpose:

This purpose of this blanket is to provide funds for workspace remodels, relocations and reconfigurations. These workspace changes are required to upgrade work environments and adequately support company/departmental operations and directives. These projects vary year to year based on need, but address modifications to the built workspace. Each year requirements are prioritized to manage the assets, keep the employees productive, and optimize the workspace. Scopes of work may include modernization projects, improvements to meet ADA requirements, changes to functionality, and/or best alternatives to meet changes in workspace requirements compared to other scenarios.

Physical Description:

Typical categories include: Branch office ergonomic refurbishments; Room Modifications and Tenant Improvements to increase functionality and density; Reorganization to collocate work groups, add capacity for offices and workstations, technical lab space and resource areas

Project Justification:

The work station moves and changes are needed to provide adequate office space and environments for employees. Requirements are based on business criticality, functionality needed to meet objectives. Space standards and guidelines are used to manage space allocations and modifications effectively in reconfigurations. Ergonomics are considered in the upgrades to provide improved working conditions and safety for employees. Increasing functionality and density of the workplace at existing facilities is a lower cost alternative to acquiring new space and fitting up (leased or owned), provided the overall requirements can be met. Failure to fund these modifications results in fractured workgroups, productivity decline, lack of adjacencies, non-standard workspace environments for employees, negative impacts to employee morale, adverse effects on working conditions and processes, inability to meet business unit goals, and inability to improve ergonomics and working conditions. Construction calculations are supported by industry professionals, including licensed architects and designers, construction industry professionals, and IT domain experts using standard construction estimation practices.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Budget Code: 00709.0
Category: G. Remodel/Relocate/Reconfig Blanket
Category-Sub: 1. Remodel/Relocate/Reconfig Blanket
Workpaper Group: 00709A - Remodel/Relocate/Reconfig Blanket

Forecast Methodology:

Labor - Zero-Based

Estimated blanket budget is based upon future forecast as necessary to meet the company compliance and service level agreement.

Non-Labor - Zero-Based

Estimated blanket budget is based upon future forecast as necessary to meet the company compliance and service level agreement.

NSE - Zero-Based

N/A

**Beginning of Workpaper Sub Details for
Workpaper Group 00709A**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00709.0
 Category: G. Remodel/Relocate/Reconfig Blanket
 Category-Sub: 1. Remodel/Relocate/Reconfig Blanket
 Workpaper Group: 00709A - Remodel/Relocate/Reconfig Blanket
 Workpaper Detail: 00709A.001 - Remodel/Relocate/Reconfigure Blanket
 In-Service Date: Not Applicable

Description:

The budget funds work station moves and changes are needed to provide adequate office space and environments for employees. Requirements are based on business criticality and functionality needed to meet objectives. Space standards and guidelines are used to manage space allocations and modifications effectively in reconfigurations. Ergonomics are considered in the upgrades to provide improved working conditions and safety for employees.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		1,000	2,500	3,500
NSE		0	0	0
	Total	1,000	2,500	3,500
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00709.0
 Category: G. Remodel/Relocate/Reconfig Blanket
 Category-Sub: 1. Remodel/Relocate/Reconfig Blanket
 Workpaper Group: 00709A - Remodel/Relocate/Reconfig Blanket
 Workpaper Detail: 00709A.002 - CP6 Carpet Replacement
 In-Service Date: 12/31/2014

Description:

CP 6 carpet replacement - Safety concern. Replace carpet and wall base and paint in all of the carpeted areas in building 6 first and second floors (except service areas and several areas which have a newer vintage carpet in place already on the first floor)

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		500	0	0
NSE		0	0	0
	Total	500	0	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00709.0
 Category: G. Remodel/Relocate/Reconfig Blanket
 Category-Sub: 1. Remodel/Relocate/Reconfig Blanket
 Workpaper Group: 00709A - Remodel/Relocate/Reconfig Blanket
 Workpaper Detail: 00709A.003 - CP6 Customer Call Ctr Tenant Improvement
 In-Service Date: 12/31/2015

Description:

Replace Carpet and Systems furniture workstations at the CP6-2 Call Center. Provide move management, project management, carpet removal, carpet recycling, new carpet, new rubber cove base (at selected areas), new systems furniture, moves, IH oversight, and limited abatement.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		700	1,000	0
NSE		0	0	0
	Total	700	1,000	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00709.0
 Category: G. Remodel/Relocate/Reconfig Blanket
 Category-Sub: 1. Remodel/Relocate/Reconfig Blanket
 Workpaper Group: 00709A - Remodel/Relocate/Reconfig Blanket
 Workpaper Detail: 00709A.007 - Mission Skills Training Center Expansion
 In-Service Date: 12/31/2016

Description:

Expand Skills Training Center to add additional space for cubicles, training classes and conference rooms to adjust for growth.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		0	360	4,140
NSE		0	0	0
	Total	0	360	4,140
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00709.0
 Category: G. Remodel/Relocate/Reconfig Blanket
 Category-Sub: 1. Remodel/Relocate/Reconfig Blanket
 Workpaper Group: 00709A - Remodel/Relocate/Reconfig Blanket
 Workpaper Detail: 00709A.010 - CP6 Seminar Room AV Upgrade
 In-Service Date: 12/31/2014

Description:

CP6 Seminar Rooms AV upgrade. Provide a video wall consisting of (8) 55" monitors, to provide improved HD video quality in Seminar rm # 2 and allow for multiple screen displays.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		196	0	0
NSE		0	0	0
	Total	196	0	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00709.0
 Category: G. Remodel/Relocate/Reconfig Blanket
 Category-Sub: 1. Remodel/Relocate/Reconfig Blanket
 Workpaper Group: 00709A - Remodel/Relocate/Reconfig Blanket
 Workpaper Detail: 00709A.011 - CP1 Finish Refresh
 In-Service Date: 12/31/2014

Description:

Design permit and construct updates to finishes within CP1-1 and CP1-2. Including lobbies, workspaces, elevators, break rooms, restrooms corridors. Conference rooms were previously completed by another project. IT rooms are excluded. Scope shall be replace floor finishes, repaint walls, replace ceiling tiles, replace old light fixtures, replace electrical finishes, replace diffusers and return air grilles, replace window treatment. Some hazardous material abatement is required. Work shall be broken into phases to allow execution of the work with minimal disruption to occupants.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		2,100	0	0
NSE		0	0	0
	Total	2,100	0	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00709.0
 Category: G. Remodel/Relocate/Reconfig Blanket
 Category-Sub: 1. Remodel/Relocate/Reconfig Blanket
 Workpaper Group: 00709A - Remodel/Relocate/Reconfig Blanket
 Workpaper Detail: 00709A.013 - Kearny Offsite Warehouse Suite A TI
 In-Service Date: 12/31/2014

Description:

Kearny Offsite Warehouse Suite A TI

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		500	0	0
NSE		0	0	0
	Total	500	0	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Category: H. Business Unit Expansion Blanket
Workpaper: 00710A

Summary for Category: H. Business Unit Expansion Blanket

	In 2013\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	0	0	0	0
Non-Labor	0	3,800	9,450	4,460
NSE	0	0	0	0
Total	<u>0</u>	<u>3,800</u>	<u>9,450</u>	<u>4,460</u>
FTE	0.0	0.0	0.0	0.0

00710A Business Unit Expansion Blanket

Labor	0	0	0	0
Non-Labor	0	3,800	9,450	4,460
NSE	0	0	0	0
Total	<u>0</u>	<u>3,800</u>	<u>9,450</u>	<u>4,460</u>
FTE	0.0	0.0	0.0	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
00710A - Business Unit Expansion Blanket

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00710.0
 Category: H. Business Unit Expansion Blanket
 Category-Sub: 1. Business Unit Expansion Blanket
 Workpaper Group: 00710A - Business Unit Expansion Blanket

Summary of Results (Constant 2013 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Labor	Zero-Based	0	0	0	0	0	0	0	
Non-Labor	Zero-Based	0	0	0	0	0	3,800	9,450	4,460
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	3,800	9,450	4,460
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Business Purpose:

This purpose of this blanket is to fund building expansion and facility expansions and improvements that adequately support corporate business objectives and initiatives. The projects identified include Master Planning, Expansion and Relocation projects at various company buildings/facilities. These projects would satisfy current and future space requirements to appropriately house employees and provide expanded workspace and storage capacities to keep pace with company growth.

Physical Description:

There are a variety of projects covered in this blanket. – each with different scope, schedule and costs. They include: CP6 Carpet Replacement; CP6 Customer Call Ctr Tenant Improvement; Mission Skills Training Center Expansion; CP^ Seminar Rm AV Upgrade; CP1 Finish Refresh; Kearny Offsite Warehouse Suite

Project Justification:

Facilities Operations and the business units identify requirements based on criticality of the facility, the age of the asset, and the implications for failure to complete the replacement or modification. Failure to implement these projects could translate into reduced safety, disruption to the business unit, inability to meet business unit operational needs, higher costs to maintain and repair, and asset devaluation. Projects are planned according to the availability of resources, in some cases weather, lead times and priorities. Like projects are bundled for economies of scale for better pricing in sourcing. Construction calculations are supported by industry professionals, including licensed architects and designers, construction industry professionals, and IT domain experts using standard construction estimation practices. Project managers are evaluated on adherence to budget and schedule. Individual work orders and project plans are developed for execution of individual projects.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Budget Code: 00710.0
Category: H. Business Unit Expansion Blanket
Category-Sub: 1. Business Unit Expansion Blanket
Workpaper Group: 00710A - Business Unit Expansion Blanket

Forecast Methodology:

Labor - Zero-Based

Estimated blanket budget is based upon future forecast as necessary to meet the company compliance and service level agreement.

Non-Labor - Zero-Based

Estimated blanket budget is based upon future forecast as necessary to meet the company compliance and service level agreement.

NSE - Zero-Based

N/A

**Beginning of Workpaper Sub Details for
Workpaper Group 00710A**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00710.0
 Category: H. Business Unit Expansion Blanket
 Category-Sub: 1. Business Unit Expansion Blanket
 Workpaper Group: 00710A - Business Unit Expansion Blanket
 Workpaper Detail: 00710A.001 - Business Unit Expansion Blanket

In-Service Date: Not Applicable

Description:

The purpose of this blanket is to fund building expansion and facility expansions and improvements that adequately support corporate business objectives and initiatives. The projects identified include Master Planning, Expansion and Relocation projects at various company buildings/facilities. These projects would satisfy current and future space requirements to appropriately house employees and provide expanded workspace and storage capacities to keep pace with company growth.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		100	100	3,500
NSE		0	0	0
	Total	100	100	3,500
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00710.0
 Category: H. Business Unit Expansion Blanket
 Category-Sub: 1. Business Unit Expansion Blanket
 Workpaper Group: 00710A - Business Unit Expansion Blanket
 Workpaper Detail: 00710A.002 - Mission Master Plan Phase 1a
 In-Service Date: 12/31/2015
 Description:

Mission Control facility expansion (10Ksf). This project will design and construct a second expansion of the original Mission Control Building.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		400	4,600	0
NSE		0	0	0
	Total	400	4,600	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00710.0
 Category: H. Business Unit Expansion Blanket
 Category-Sub: 1. Business Unit Expansion Blanket
 Workpaper Group: 00710A - Business Unit Expansion Blanket
 Workpaper Detail: 00710A.003 - OCCO Crew Room Construction
 In-Service Date: 12/31/2014

Description:

Administration Building: Demolish the interior of the first floor. Build a new crew room, locker rooms, and remodel existing restrooms, break rooms and conference rooms.
 Site Improvements: Remove the existing manual vehicular gate to the employee parking lot and install a new motorized gate. Remove the existing pedestrian gate and replace with a new gate and card reader. Demolish planters and paving in and around the existing patio area and expand the patio, including additional furniture, shading and seat walls. Improve vehicle access to EV and CNG fueling stations.
 Demolish Existing Crew Building: Design and permitting for this phase is included in this WOR.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		100	0	0
NSE		0	0	0
	Total	100	0	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00710.0
 Category: H. Business Unit Expansion Blanket
 Category-Sub: 1. Business Unit Expansion Blanket
 Workpaper Group: 00710A - Business Unit Expansion Blanket
 Workpaper Detail: 00710A.004 - Palomar Energy Ctr Administration Expansion
 In-Service Date: 12/31/2015

Description:

This project would construct a 2 story addition along the front section of the building that would allow the building to house additional staff.

Forecast In 2013 \$(000)					
	Years	2014	2015	2016	
Labor		0	0	0	
Non-Labor		0	1,750	0	
NSE		0	0	0	
	Total	0	1,750	0	
FTE		0.0	0.0	0.0	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00710.0
 Category: H. Business Unit Expansion Blanket
 Category-Sub: 1. Business Unit Expansion Blanket
 Workpaper Group: 00710A - Business Unit Expansion Blanket
 Workpaper Detail: 00710A.005 - RBDC Server Rm #2 Expansion Phase 2
 In-Service Date: 12/31/2015
 Description:

This project will design and construct computer room infrastructure (power and cooling) to support an expansion of the existing server room in to the space formerly leased to ADP, now serving as a storage area. (Phase 2)

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		0	1,500	0
NSE		0	0	0
	Total	0	1,500	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00710.0
 Category: H. Business Unit Expansion Blanket
 Category-Sub: 1. Business Unit Expansion Blanket
 Workpaper Group: 00710A - Business Unit Expansion Blanket
 Workpaper Detail: 00710A.006 - RBDC Server Rm #2 Expansion Phase 1
 In-Service Date: 12/31/2014

Description:

This project will design and construct computer room infrastructure (power and cooling) to support an expansion of the existing server room in to the space formerly leased to ADP, now serving as a storage area. (Phase 1)

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		1,200	0	0
NSE		0	0	0
	Total	1,200	0	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00710.0
 Category: H. Business Unit Expansion Blanket
 Category-Sub: 1. Business Unit Expansion Blanket
 Workpaper Group: 00710A - Business Unit Expansion Blanket
 Workpaper Detail: 00710A.007 - CP Annex Tenant Improvements
 In-Service Date: 12/31/2014

Description:

This funding provides tenant improvements for the CP Annex that will house several departments.

Forecast In 2013 \$(000)				
	Years	<u>2014</u>	<u>2015</u>	<u>2016</u>
Labor		0	0	0
Non-Labor		1,500	0	0
NSE		0	0	0
	Total	1,500	0	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 00710.0
 Category: H. Business Unit Expansion Blanket
 Category-Sub: 1. Business Unit Expansion Blanket
 Workpaper Group: 00710A - Business Unit Expansion Blanket
 Workpaper Detail: 00710A.008 - Kearny Master Plan Phase 1
 In-Service Date: 12/31/2016

Description:

Kearny Master Plan Phase 1 provides funding for new garage maintenance building and fleet entrance.

Forecast In 2013 \$(000)				
	Years	<u>2014</u>	<u>2015</u>	<u>2016</u>
Labor		0	0	0
Non-Labor		500	1,500	960
NSE		0	0	0
	Total	<u>500</u>	<u>1,500</u>	<u>960</u>
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Category: I. Century Park PHOTOVOLTAICS Installation
 Workpaper: 08729A

Summary for Category: I. Century Park PHOTOVOLTAICS Installation

	In 2013\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	0	345	510	900
Non-Labor	0	1,955	3,890	6,100
NSE	0	0	0	0
Total	0	2,300	4,400	7,000
FTE	0.0	4.6	6.8	12.0

08729A Century Park PHOTOVOLTAICS Installation

Labor	0	345	510	900
Non-Labor	0	1,955	3,890	6,100
NSE	0	0	0	0
Total	0	2,300	4,400	7,000
FTE	0.0	4.6	6.8	12.0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
08729A - Century Park PHOTOVOLTAICS Installation

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 08729.0
 Category: I. Century Park PHOTOVOLTAICS Installation
 Category-Sub: 1. Century Park PHOTOVOLTAICS Installation
 Workpaper Group: 08729A - Century Park PHOTOVOLTAICS Installation

Summary of Results (Constant 2013 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Years									
Labor	Zero-Based	0	0	0	0	0	345	510	900
Non-Labor	Zero-Based	0	0	0	0	0	1,955	3,890	6,100
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	2,300	4,400	7,000
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	4.6	6.8	12.0

Business Purpose:

Install Rooftop PV systems at various sites to support federal, state and company renewable energy initiatives, as well as save electric demand, energy and costs.

Physical Description:

SDGE Alternative Energy Program; Provide engineering and construction to install a photo-voltaic energy system designed to reduce energy consumption through alternative methods.

Project Justification:

These systems will not only improve the various sites operational characteristics (while reducing costs), but will also reduce system-wide power demand at the most critical periods, which will alleviate grid congestion and increase system reliability.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Budget Code: 08729.0
Category: I. Century Park PHOTOVOLTAICS Installation
Category-Sub: 1. Century Park PHOTOVOLTAICS Installation
Workpaper Group: 08729A - Century Park PHOTOVOLTAICS Installation

Forecast Methodology:

Labor - Zero-Based

Estimated blanket budget is based upon future forecast as necessary to meet the company compliance and service level agreement.

Non-Labor - Zero-Based

Estimated blanket budget is based upon future forecast as necessary to meet the company compliance and service level agreement.

NSE - Zero-Based

N/A

**Beginning of Workpaper Sub Details for
Workpaper Group 08729A**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 08729.0
 Category: I. Century Park PHOTOVOLTAICS Installation
 Category-Sub: 1. Century Park PHOTOVOLTAICS Installation
 Workpaper Group: 08729A - Century Park PHOTOVOLTAICS Installation
 Workpaper Detail: 08729A.001 - Alternative Energy System Allowance
 In-Service Date: Not Applicable

Description:

Install Rooftop photo-voltaic systems at various sites to support federal, state and company renewable energy initiatives, as well as save electric demand, energy and costs. Implement program-based installations of electric vehicle chargers at occupied facilities across the SDG&E territory, both fee owned and leased, for use by fleet and employee vehicles (energy cost at employee expense).

Forecast In 2013 \$(000)			
Years	2014	2015	2016
Labor	345	510	900
Non-Labor	1,955	3,890	6,100
NSE	0	0	0
Total	2,300	4,400	7,000
FTE	4.6	6.8	12.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Category: J. NGV Upgrades
Workpaper: 08734A

Summary for Category: J. NGV Upgrades

	In 2013\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	0	0	108	160
Non-Labor	0	298	1,792	1,487
NSE	0	0	0	0
Total	0	298	1,900	1,647
FTE	0.0	0.0	1.4	2.1

08734A NGV Upgrades

Labor	0	0	108	160
Non-Labor	0	298	1,792	1,487
NSE	0	0	0	0
Total	0	298	1,900	1,647
FTE	0.0	0.0	1.4	2.1

Note: Totals may include rounding differences.

**Beginning of Workpaper Group
08734A - NGV Upgrades**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 08734.0
 Category: J. NGV Upgrades
 Category-Sub: 1. NGV Upgrades
 Workpaper Group: 08734A - NGV Upgrades

Summary of Results (Constant 2013 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
	Years								
Labor	Zero-Based	0	0	0	0	0	0	108	160
Non-Labor	Zero-Based	0	0	0	0	0	298	1,792	1,487
NSE	Zero-Based	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	298	1,900	1,647
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.1

Business Purpose:

Provide planning, design, permitting, and construction to provide 8-15 time fill dispensing units at the Beach Cities private NGV station.

Physical Description:

The new time fill dispensing units are proposed to be located east of the NGV compressor and storage tank island. New tubing serving the dual head dispensing units will be installed underground from the compressor/storage island to the new dispensing area, the existing compressor control panel is no longer functioning and needs to be replaced, along with the existing priority panel (which is also non-functional). Emergency power off buttons will be required at the dispensing location (possibly 2).

Project Justification:

To Be filled in.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Budget Code: 08734.0
Category: J. NGV Upgrades
Category-Sub: 1. NGV Upgrades
Workpaper Group: 08734A - NGV Upgrades

Forecast Methodology:

Labor - Zero-Based

Estimated project cost is based upon bids provided by design and construction firms and historic pricing for materials and equipment.

Non-Labor - Zero-Based

Estimated project cost is based upon bids provided by design and construction firms and historic pricing for materials and equipment.

NSE - Zero-Based

N/A

**Beginning of Workpaper Sub Details for
Workpaper Group 08734A**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 08734.0
 Category: J. NGV Upgrades
 Category-Sub: 1. NGV Upgrades
 Workpaper Group: 08734A - NGV Upgrades
 Workpaper Detail: 08734A.001 - NGV Upgrades

In-Service Date: 12/31/2016

Description:

Provide planning design permitting and construction for new NGV stations or expanded capacity of existing stations for the benefit of the public or SDG&E fleet. The budget will fund expanded stations for the public and SDG&E fleet at two properties accessible to the public, and new installations for SDG&E fleet, only, at three secured properties.

Forecast In 2013 \$(000)					
	Years	2014	2015	2016	
Labor		0	108	160	
Non-Labor		298	1,792	1,487	
NSE		0	0	0	
	Total	298	1,900	1,647	
FTE		0.0	1.4	2.1	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Category: K. RBDC UPS Electrical
Workpaper: 08735A

Summary for Category: K. RBDC UPS Electrical

	In 2013\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	0	0	0	0
Non-Labor	0	752	2,000	4,000
NSE	0	0	0	0
Total	<u>0</u>	<u>752</u>	<u>2,000</u>	<u>4,000</u>
FTE	0.0	0.0	0.0	0.0

08735A RBDC UPS Electrical

Labor	0	0	0	0
Non-Labor	0	752	2,000	4,000
NSE	0	0	0	0
Total	<u>0</u>	<u>752</u>	<u>2,000</u>	<u>4,000</u>
FTE	0.0	0.0	0.0	0.0

Note: Totals may include rounding differences.

**Beginning of Workpaper Group
08735A - RBDC UPS Electrical**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 08735.0
 Category: K. RBDC UPS Electrical
 Category-Sub: 1. RBDC UPS Electrical
 Workpaper Group: 08735A - RBDC UPS Electrical

Summary of Results (Constant 2013 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Years									
Labor	Zero-Based	0	0	0	0	0	0	0	0
Non-Labor	Zero-Based	0	0	0	0	0	752	2,000	4,000
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	752	2,000	4,000
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Business Purpose:

This project will design and replace existing computer room air conditioning units (CRAC's) with chilled water CRAH's

Physical Description:

TBD

Project Justification:

TBD

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Budget Code: 08735.0
Category: K. RBDC UPS Electrical
Category-Sub: 1. RBDC UPS Electrical
Workpaper Group: 08735A - RBDC UPS Electrical

Forecast Methodology:

Labor - Zero-Based

Estimated project cost is based upon bids provided by design and construction firms and historic pricing for materials and equipment.

Non-Labor - Zero-Based

Estimated project cost is based upon bids provided by design and construction firms and historic pricing for materials and equipment.

NSE - Zero-Based

N/A

**Beginning of Workpaper Sub Details for
Workpaper Group 08735A**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 08735.0
 Category: K. RBDC UPS Electrical
 Category-Sub: 1. RBDC UPS Electrical
 Workpaper Group: 08735A - RBDC UPS Electrical
 Workpaper Detail: 08735A.001 - RBDC UPS Expansion

In-Service Date: 12/31/2015

Description:

At the main server room to the company's primary data center, this budget will fund the replacement of existing, aged direct expansion (DX) type computer room air conditioning units (CRAC's) with new units that will operate from the facility chilled water plant, thereby decreasing the facility's energy usage. The budget will also fund the addition of redundant UPS modules to keep pace with the anticipated server growth in the data center facility.

Forecast In 2013 \$(000)			
Years	2014	2015	2016
Labor	0	0	0
Non-Labor	0	2,000	4,000
NSE	0	0	0
Total	0	2,000	4,000
FTE	0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 08735.0
 Category: K. RBDC UPS Electrical
 Category-Sub: 1. RBDC UPS Electrical
 Workpaper Group: 08735A - RBDC UPS Electrical
 Workpaper Detail: 08735A.002 - RBDC Server Room #1 CRAC Replacements
 In-Service Date: 12/31/2014

Description:

This project will design and replace existing type DX computer room air conditioning units (CRAC's) with chilled water CRAC's. This conversion will allow maximum energy efficiency of the new chilled water cooling plant implemented under Project 10318, which, in turn, will reduce the building energy load and allow the generators to support the full capacity of new UPS's A & B in an outage condition.

Forecast In 2013 \$(000)			
Years	2014	2015	2016
Labor	0	0	0
Non-Labor	752	0	0
NSE	0	0	0
Total	752	0	0
FTE	0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Category: L. Land Svc Archibus System
Workpaper: 13746A

Summary for Category: L. Land Svc Archibus System

	In 2013\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	0	0	0	0
Non-Labor	0	1,400	0	0
NSE	0	0	0	0
Total	<u>0</u>	<u>1,400</u>	<u>0</u>	<u>0</u>
FTE	0.0	0.0	0.0	0.0

13746A Land Svc Archibus System

Labor	0	0	0	0
Non-Labor	0	1,400	0	0
NSE	0	0	0	0
Total	<u>0</u>	<u>1,400</u>	<u>0</u>	<u>0</u>
FTE	0.0	0.0	0.0	0.0

Note: Totals may include rounding differences.

**Beginning of Workpaper Group
13746A - Land Svc Archibus System**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 13746.0
 Category: L. Land Svc Archibus System
 Category-Sub: 1. Land Svc Archibus System
 Workpaper Group: 13746A - Land Svc Archibus System

Summary of Results (Constant 2013 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Years									
Labor	Zero-Based	0	0	0	0	0	0	0	0
Non-Labor	Zero-Based	0	0	0	0	0	1,400	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	1,400	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Business Purpose:

Provide an operational software platform for managing the Land Services/ Right of Way business, integrated with Archibus foundational systems in other Corp Real Estate and Planning groups

Physical Description:

The Archibus Project will automate and develop best management practices around several of the shared services support systems used within the Corporate Real Estate and Planning group. Steps in the project include document scanning of legacy information, update, revise or develop new work tracking systems which include document management, financial, scheduling and work flow processes to identify project specifics. Design of each system includes the ability to prepare extracts and reports used for metrics and other key performance indicators are necessary. Lastly, the project includes the development of a new GIS tool specific to land management.

Project Justification:

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Budget Code: 13746.0
Category: L. Land Svc Archibus System
Category-Sub: 1. Land Svc Archibus System
Workpaper Group: 13746A - Land Svc Archibus System

Forecast Methodology:

Labor - Zero-Based

Estimated project cost is based upon bids provided by design and construction firms and historic pricing for materials and equipment.

Non-Labor - Zero-Based

Estimated project cost is based upon bids provided by design and construction firms and historic pricing for materials and equipment.

NSE - Zero-Based

N/A

**Beginning of Workpaper Sub Details for
Workpaper Group 13746A**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 13746.0
 Category: L. Land Svc Archibus System
 Category-Sub: 1. Land Svc Archibus System
 Workpaper Group: 13746A - Land Svc Archibus System
 Workpaper Detail: 13746A.001 - Land Services Archibus System
 In-Service Date: 12/31/2014

Description:

The Archibus Project will automate and develop best management practices around several of the shared services support systems used within the Corporate Real Estate and Planning group. Steps in the project include document scanning of legacy information, update, revise or develop new work tracking systems which include document management, financial, scheduling and work flow processes to identify project specifics. Design of each system includes the ability to prepare extracts and reports used for metrics and other key performance indicators are necessary. Lastly, the project includes the development of a new GIS tool specific to land management.

Forecast In 2013 \$(000)				
	Years	2014	2015	2016
Labor		0	0	0
Non-Labor		1,400	0	0
NSE		0	0	0
	Total	1,400	0	0
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Category: M. Mission Control Emergency Generator Replacement
 Workpaper: 13749A

Summary for Category: M. Mission Control Emergency Generator Replacement

	In 2013\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2013	2014	2015	2016
Labor	0	0	0	0
Non-Labor	0	1,600	0	0
NSE	0	0	0	0
Total	<u>0</u>	<u>1,600</u>	<u>0</u>	<u>0</u>
FTE	0.0	0.0	0.0	0.0

13749A Mission Control Emergency Generator Replacement

Labor	0	0	0	0
Non-Labor	0	1,600	0	0
NSE	0	0	0	0
Total	<u>0</u>	<u>1,600</u>	<u>0</u>	<u>0</u>
FTE	0.0	0.0	0.0	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
13749A - Mission Control Emergency Generator Replacement

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 13749.0
 Category: M. Mission Control Emergency Generator Replacement
 Category-Sub: 1. Mission Control Emergency Generator Replacement
 Workpaper Group: 13749A - Mission Control Emergency Generator Replacement

Summary of Results (Constant 2013 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2009	2010	2011	2012	2013	2014	2015	2016
Years									
Labor	Zero-Based	0	0	0	0	0	0	0	0
Non-Labor	Zero-Based	0	0	0	0	0	1,600	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	1,600	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Business Purpose:

Provide (2) redundant 1MW emergency generators for emergency power back-up at Mission Control.

Physical Description:

The existing 500KW emergency generator unit at the Mission Control facility is 32 years old and approaching the end of its expected life. This funding will replace the current emergency generators and add 2 redundant generator to support critical systems at the facility in the event of an outage. Additionally, the transfer switches will be replaced and the generation system reconfigured to eliminate a single point of failure.

Project Justification:

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
Witness: James C. Seifert
Budget Code: 13749.0
Category: M. Mission Control Emergency Generator Replacement
Category-Sub: 1. Mission Control Emergency Generator Replacement
Workpaper Group: 13749A - Mission Control Emergency Generator Replacement

Forecast Methodology:

Labor - Zero-Based

Estimated project cost is based upon bids provided by design and construction firms and historic pricing for materials and equipment.

Non-Labor - Zero-Based

Estimated project cost is based upon bids provided by design and construction firms and historic pricing for materials and equipment.

NSE - Zero-Based

N/A

**Beginning of Workpaper Sub Details for
Workpaper Group 13749A**

San Diego Gas & Electric Company
2016 GRC - APP
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: James C. Seifert
 Budget Code: 13749.0
 Category: M. Mission Control Emergency Generator Replacement
 Category-Sub: 1. Mission Control Emergency Generator Replacement
 Workpaper Group: 13749A - Mission Control Emergency Generator Replacement
 Workpaper Detail: 13749A.001 - Mission Control Emergency Generator Replacement
 In-Service Date: 12/31/2014
 Description:

The existing 500KW emergency generator unit at the Mission Control facility is 32 years old and approaching the end of its expected life. This funding will replace the current emergency generators and add 2 redundant generator to support critical systems at the facility in the event of an outage. Additionally, the transfer switches will be replaced and the generation system reconfigured to eliminate a single point of failure.

Forecast In 2013 \$(000)			
Years	2014	2015	2016
Labor	0	0	0
Non-Labor	1,600	0	0
NSE	0	0	0
Total	1,600	0	0
FTE	0.0	0.0	0.0

Note: Totals may include rounding differences.