

Application of SAN DIEGO GAS & ELECTRIC)
COMPANY for authority to update its gas and)
electric revenue requirement and base rates)
effective January 1, 2024 (U 902-M))

Application No. 22-05-016

Exhibit No.: (SDG&E-23-CWP-R)

REVISED CAPITAL WORKPAPERS TO
PREPARED DIRECT TESTIMONY
OF RICHARD D. TATTERSALL
ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

AUGUST 2022



**2024 General Rate Case - REVISED
INDEX OF WORKPAPERS**

Exhibit SDG&E-23-CWP-R - FACILITIES/OTHER

DOCUMENT	PAGE
Overall Summary For Exhibit No. SDG&E-23-CWP-R	1
Category: A. Land	2
..007000 - LAND BLANKET	3
Category: B. Structures & Improvements	11
..007010 - STRUCTURES & IMPROVEMENTS BLANKET	13
..00701A - BEACH CITIES RACKING & CANOPY INSTALLATION	29
..00701B - BEACH CITIES STORAGE YARD ASPHALT REPLACEMENT	36
..00701C - EASTERN C&O SITE ASPHALT REPLACEMENT	43
..00701D - MOUNTAIN EMPIRE LINE TRUCK CANOPY	50
..00701E - MOUNTAIN EMPIRE GARAGE ROOF REPLACEMENT	57
..00701F - METRO C&O YARD ASPHALT REPLACEMENT	64
..00701G - METRO FUEL ISLAND IMPROVEMENTS	71
..00701H - MOUNTAIN EMPIRE DRIVE AISLE PAVING	78
..00701I - SDG&E SURVEY CONTROL NETWORK	85
..00701J - EASTERN C&O NEW PARKING UPGRADE	92
Category: C. Safety and Environmental	99
..007030 - SAFETY/ENVIRONMENTAL	100
..00703A - MIRAMAR HAZMAT SITE STOREAGE EXPANSION	113
Category: D. Miscellaneous Equipment	120
..007050 - MISC EQUIPMENT BLANKET	121
..00705A - EV CHARGER SMART METER CONVERSION	136
Category: E. Security Systems	143
..007070 - SECURITY SYSTEMS BLANKET	144
..00707A - MOUNTAIN EMPIRE SITE SECURITY IMPROVEMENTS	158
..00707B - SDG&E SITE SECURITY UPGRADES	165
..00707C - RAMONA SUBSTATION MAIN YARD IMPROVEMENTS	172
Category: F. Infrastructure and Reliability	179
..007080 - COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB	180
..00708A - RAMONA GENERATOR INSTALLATION	198
..00708B - RBDC GENERATOR 6 INSTALLATION	205
..00708C - RBDC PRE-ACTION ZONE PIPE REPAIR	212
Category: G. Remodel / Relocate / Reconfigure	219
..007090 - COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	221
..00709C - RBDC SECURE WALKWAY INSTALLATION	234
..00709D - RBDC SRC (SYSTEM RELIABILITY CENTER) TI	241
..00709E - METRO BUILDING CREW ROOM RECONFIGURATION	248

**2024 General Rate Case - REVISED
INDEX OF WORKPAPERS**

Exhibit SDG&E-23-CWP-R - FACILITIES/OTHER

DOCUMENT	PAGE
..00709F - METRO LOCKER ROOM REMODEL & EXPANSION	255
..00709G - MIRAMAR EQUIPMENT OPS LOCKER FACILITY	262
..00709H - MOUNTAIN EMPIRE BLDG 1 REMODEL	269
..00709I - NORTHCOAST INTERIOR REFRESH	276
..00709K - MIRAMAR BLDG A LOCKER ROOM REMODEL	283
..00709L - EASTERN C&O TOOL STORAGE WAREHOUSE OFFICE	290
Category: H. Business Unit Expansion	297
..00710A - CHULA VISTA YARD SECURITY IMPROVEMENTS	299
..00710B - KEARNY C&O MASTER PLAN PH 1	306
..00710C - KEARNY MASTER PLAN PHASE 2	313
..00710D - ENERGY INNOVATION CENTER DECOMMISSIONING	320
..00710F - MIRAMAR SITE IMPROVEMENTS (POST NRG)	327
..00710G - MISSION SKILLS TEMPORARY CLASSROOM TRAILERS	334
..00710H - MISSION SKILLS TRAINING BUILDING EXPANSION	341
Category: I. Clean Transportation Infrastructure	348
..087290 - CLEAN TRANSPORTATION INFRASTRUCTURE	349
..08729A - FLEET HYDROGEN FUELING	360
Category: J. Land Services Archibus System	367
..137460 - LAND SERVICES ARCHIBUS SYSTEM	368
Category: K. SDG&E Sustainability Program	376
..21757A - SDG&E SUSTAINABILITY PROGRAM	377
..21757B - SDG&E SUSTAINABILITY PROGRAM	385

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Overall Summary For Exhibit No. SDG&E-23-CWP-R

Area:	FACILITIES/OTHER
Witness:	Richard D. Tattersall

	In 2021 \$ (000)		
	Adjusted-Forecast		
	2022	2023	2024
A. Land	74	74	74
B. Structures & Improvements	12,027	20,725	5,343
C. Safety and Environmental	2,168	5,508	1,958
D. Miscellaneous Equipment	3,385	1,700	1,700
E. Security Systems	6,109	3,541	2,713
F. Infrastructure and Reliability	8,099	6,593	5,687
G. Remodel / Relocate / Reconfigure	13,537	6,069	2,494
H. Business Unit Expansion	3,246	23,494	34,631
I. Clean Transportation Infrastructure	1,516	4,068	12,227
J. Land Services Archibus System	1,500	1,500	1,500
K. SDG&E Sustainability Program	13,517	2,258	5,563
Total	65,178	75,530	73,890

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Category: A. Land
Workpaper: 007000

Summary for Category: A. Land

	In 2021\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Labor	0	0	0	0
Non-Labor	0	74	74	74
NSE	0	0	0	0
Total	<u>0</u>	<u>74</u>	<u>74</u>	<u>74</u>
FTE	0.0	0.0	0.0	0.0

007000 LAND BLANKET

Labor	0	0	0	0
Non-Labor	0	74	74	74
NSE	0	0	0	0
Total	<u>0</u>	<u>74</u>	<u>74</u>	<u>74</u>
FTE	0.0	0.0	0.0	0.0

Note: Totals may include rounding differences.

**Beginning of Workpaper Group
007000 - LAND BLANKET**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00700.0
 Category: A. Land
 Category-Sub: 1. Land
 Workpaper Group: 007000 - LAND BLANKET

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	3-YR Average	0	0	0	1	0	0	0	
Non-Labor	3-YR Average	200	41	194	27	0	74	74	
NSE	3-YR Average	0	0	0	0	0	0	0	
Total		200	41	194	28	0	74	74	
FTE	3-YR Average	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Business Purpose:

This budget funds minor maintenance and landscape projects on fee owned unoccupied property in order to adequately support Company Operations, manage and protect Company property, and maintain or improve the value of Company real property. The funding provides the opportunity to maintain and/or improve the 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 screening or retaining 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, 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 or to conserve water.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00700.0
Category: A. Land
Category-Sub: 1. Land
Workpaper Group: 007000 - LAND BLANKET

Forecast Methodology:

Labor - 3-YR Average

3-year Average

Non-Labor - 3-YR Average

3-Year Average

NSE - 3-YR Average

N/A

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00700.0
 Category: A. Land
 Category-Sub: 1. Land
 Workpaper Group: 007000 - LAND BLANKET

Summary of Adjustments to Forecast

In 2021 \$ (000)										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	3-YR Average	0	0	0	0	0	0	0	0	0
Non-Labor	3-YR Average	74	74	74	0	0	0	74	74	74
NSE	3-YR Average	0	0	0	0	0	0	0	0	0
Total		74	74	74	0	0	0	74	74	74
FTE	3-YR Average	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Forecast Adjustment Details

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
2022 Total	0	0	0	0	0.0
2023 Total	0	0	0	0	0.0
2024 Total	0	0	0	0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00700.0
Category: A. Land
Category-Sub: 1. Land
Workpaper Group: 007000 - LAND BLANKET

Determination of Adjusted-Recorded:

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	0	0	0	1	0
Non-Labor	164	35	174	25	0
NSE	0	0	0	0	0
Total	164	35	174	26	0
FTE	0.0	0.0	0.0	0.0	0.0
Adjustments (Nominal \$)**					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	0	0	0	1	0
Non-Labor	164	35	174	25	0
NSE	0	0	0	0	0
Total	164	35	174	26	0
FTE	0.0	0.0	0.0	0.0	0.0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Escalation to 2021\$					
Labor	0	0	0	0	0
Non-Labor	36	6	20	2	0
NSE	0	0	0	0	0
Total	36	6	20	2	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2021\$)					
Labor	0	0	0	1	0
Non-Labor	200	41	194	27	0
NSE	0	0	0	0	0
Total	200	41	194	28	0
FTE	0.0	0.0	0.0	0.0	0.0

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
 2024 GRC - REVISED
 Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00700.0
 Category: A. Land
 Category-Sub: 1. Land
 Workpaper Group: 007000 - LAND BLANKET

Summary of Adjustments to Recorded:

In Nominal \$(000)					
Years	2017	2018	2019	2020	2021
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
-------------	--------------	-------------	------------	--------------	------------

Note: Totals may include rounding differences.

**Beginning of Workpaper Sub Details for
Workpaper Group 007000**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00700.0
 Category: A. Land
 Category-Sub: 1. Land
 Workpaper Group: 007000 - LAND BLANKET
 Workpaper Detail: 007000.001 - Land Blanket
 In-Service Date: Not Applicable

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 screening or retaining walls, access gates, signs, grading, paving, drainage improvements, landscaping and landscape irrigation.

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		0	0	0
Non-Labor		74	74	74
NSE		0	0	0
	Total	<u>74</u>	<u>74</u>	<u>74</u>
FTE		0.0	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Category: B. Structures & Improvements
Workpaper: VARIOUS

Summary for Category: B. Structures & Improvements

	In 2021\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Labor	239	241	414	107
Non-Labor	12,628	11,786	20,311	5,236
NSE	0	0	0	0
Total	12,867	12,027	20,725	5,343
FTE	2.6	2.3	3.2	0.8

007010 STRUCTURES & IMPROVEMENTS BLANKET

Labor	239	107	107	107
Non-Labor	12,628	5,236	5,236	5,236
NSE	0	0	0	0
Total	12,867	5,343	5,343	5,343
FTE	2.6	1.0	0.8	0.8

00701A Beach Cities Racking & Canopy Installation

Labor	0	21	61	0
Non-Labor	0	1,041	3,001	0
NSE	0	0	0	0
Total	0	1,062	3,062	0
FTE	0.0	0.2	0.5	0.0

00701B Beach Cities Storage Yard Asphalt Replacement

Labor	0	0	67	0
Non-Labor	0	0	3,259	0
NSE	0	0	0	0
Total	0	0	3,326	0
FTE	0.0	0.0	0.5	0.0

00701C Eastern C&O Site Asphalt Replacement

Labor	0	1	55	0
Non-Labor	0	45	2,695	0
NSE	0	0	0	0
Total	0	46	2,750	0
FTE	0.0	0.1	0.4	0.0

00701D Mountain Empire Line Truck Canopy

Labor	0	55	0	0
Non-Labor	0	2,670	0	0
NSE	0	0	0	0
Total	0	2,725	0	0
FTE	0.0	0.4	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Category: B. Structures & Improvements
Workpaper: VARIOUS

	In 2021\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
00701E Mountain Empire Garage Roof Replacement				
Labor	0	20	0	0
Non-Labor	0	958	0	0
NSE	0	0	0	0
Total	0	978	0	0
FTE	0.0	0.1	0.0	0.0
00701F Metro C&O Yard Asphalt Replacement				
Labor	0	0	36	0
Non-Labor	0	0	1,786	0
NSE	0	0	0	0
Total	0	0	1,822	0
FTE	0.0	0.0	0.3	0.0
00701G Metro Fuel Island Improvements				
Labor	0	1	34	0
Non-Labor	0	64	1,667	0
NSE	0	0	0	0
Total	0	65	1,701	0
FTE	0.0	0.1	0.3	0.0
00701H Mountain Empire Drive Aisle Paving				
Labor	0	25	25	0
Non-Labor	0	1,246	1,246	0
NSE	0	0	0	0
Total	0	1,271	1,271	0
FTE	0.0	0.2	0.2	0.0
00701I SDG&E Survey Control Network				
Labor	0	6	29	0
Non-Labor	0	294	1,421	0
NSE	0	0	0	0
Total	0	300	1,450	0
FTE	0.0	0.1	0.2	0.0
00701J Eastern C&O New Parking Upgrade				
Labor	0	5	0	0
Non-Labor	0	232	0	0
NSE	0	0	0	0
Total	0	237	0	0
FTE	0.0	0.1	0.0	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
007010 - STRUCTURES & IMPROVEMENTS BLANKET

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 007010 - STRUCTURES & IMPROVEMENTS BLANKET

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Labor	Zero-Based	89	73	82	139	239	107	107	107
Non-Labor	Zero-Based	6,347	3,875	4,338	14,522	12,628	5,236	5,236	5,236
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		6,436	3,948	4,419	14,661	12,867	5,343	5,343	5,343
FTE	Zero-Based	0.8	0.6	0.6	1.1	2.6	1.0	0.8	0.8

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 \$1 million are bundled when possible for economies of scale in sourcing. These projects vary year to year based on need, but address the capital replacement or addition of basic, individual interior and exterior facilities construction components, including site lighting, fencing, gates, paving, roofing, flooring, windows and storage racking or sheds. Each year's requirements are prioritized to manage and protect the facility assets, keep the employees safe and optimize real estate value. Scope of work may include modernization projects 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 Racking or 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, and construction industry professionals.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00701.0
Category: B. Structures & Improvements
Category-Sub: 1. Structures & Improvements
Workpaper Group: 007010 - STRUCTURES & IMPROVEMENTS BLANKET

Forecast Methodology:

Labor - Zero-Based

3-Year Average

Non-Labor - Zero-Based

3-Year Average

NSE - Zero-Based

N/A

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 007010 - STRUCTURES & IMPROVEMENTS BLANKET

Summary of Adjustments to Forecast

In 2021 \$ (000)										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	Zero-Based	107	107	107	0	0	0	107	107	107
Non-Labor	Zero-Based	5,236	5,236	5,236	0	0	0	5,236	5,236	5,236
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
Total		5,343	5,343	5,343	0	0	0	5,343	5,343	5,343
FTE	Zero-Based	1.0	0.8	0.8	0.0	0.0	0.0	1.0	0.8	0.8

Forecast Adjustment Details

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
2022 Total	0	0	0	0	0.0
2023 Total	0	0	0	0	0.0
2024 Total	0	0	0	0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00701.0
Category: B. Structures & Improvements
Category-Sub: 1. Structures & Improvements
Workpaper Group: 007010 - STRUCTURES & IMPROVEMENTS BLANKET

Determination of Adjusted-Recorded:

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	63	55	64	114	143
Non-Labor	5,205	3,341	3,889	13,601	9,322
NSE	0	0	0	0	0
Total	5,268	3,396	3,954	13,715	9,465
FTE	0.7	0.5	0.5	0.9	1.1
Adjustments (Nominal \$)**					
Labor	0	0	0	0	65
Non-Labor	0	0	0	0	3,306
NSE	0	0	0	0	0
Total	0	0	0	0	3,371
FTE	0.0	0.0	0.0	0.0	1.3
Recorded-Adjusted (Nominal \$)					
Labor	63	55	64	114	208
Non-Labor	5,205	3,341	3,889	13,601	12,628
NSE	0	0	0	0	0
Total	5,268	3,396	3,954	13,715	12,836
FTE	0.7	0.5	0.5	0.9	2.4
Vacation & Sick (Nominal \$)					
Labor	9	8	9	16	31
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	9	8	9	16	31
FTE	0.1	0.1	0.1	0.2	0.2
Escalation to 2021\$					
Labor	16	10	8	9	0
Non-Labor	1,143	534	448	921	0
NSE	0	0	0	0	0
Total	1,158	544	457	929	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2021\$)					
Labor	89	73	82	139	239
Non-Labor	6,347	3,875	4,338	14,522	12,628
NSE	0	0	0	0	0
Total	6,436	3,948	4,419	14,661	12,867
FTE	0.8	0.6	0.6	1.1	2.6

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 007010 - STRUCTURES & IMPROVEMENTS BLANKET

Summary of Adjustments to Recorded:

In Nominal \$(000)					
Years	2017	2018	2019	2020	2021
Labor	0	0	0	0	65
Non-Labor	0	0	0	0	3,306
NSE	0	0	0	0	0
Total	0	0	0	0	3,371
FTE	0.0	0.0	0.0	0.0	1.3

Detail of Adjustments to Recorded in Nominal \$:

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
2017 Total	0	0	0	0	0.0
2018 Total	0	0	0	0	0.0
2019 Total	0	0	0	0	0.0
2020 Total	0	0	0	0	0.0
2021	7	105	0	112	0.1
Explanation:	Transfer BC 70510 Eastern C&O Site Asphalt Replacement to BC 701.				
2021	10	895	0	906	0.1
Explanation:	Transfer 21729 Eastern Roof Replacement to BC 701				
2021	5	98	0	103	0.1
Explanation:	Transfer BC 21737 to Metro Yard Asphalt Replacment to BC 701				
2021	0.381	74	0	74	0.1
Explanation:	Transfer BC 21738 Beach Cities Storage Yard Asphalt Replacement to BC 701.				
2021	3	243	0	246	0.1
Explanation:	Transfer BC 21739 Mountain Empire Line Truck Canopy to BC 701.				
2021	12	127	0	140	0.1
Explanation:	Transfer 21744 Miramar Site Improvements - Post NRG to BC 701.				
2021	5	203	0	208	0.1
Explanation:	Transfer BC 21746 Mountain Empire Drive Aisle Paving to BC 701.				
2021	0.541	270	0	270	0.1
Explanation:	Transfer BC 21749 Beach Cities Racking and Canopy to BC 701.				
2021	3	42	0	45	0.1
Explanation:	Transfer BC 21753 Mountain Empire Garage Roof Replacement to BC 701.				
2021	9	177	0	186	0.1

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 007010 - STRUCTURES & IMPROVEMENTS BLANKET

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
Explanation:	Transfer 21756 Beach Cities Roof Replacement to BC 701				
2021	0.224	41	0	41	0.1
Explanation:	Transfer BC 21758 Metro Fuel Island to BC 701.				
2021	7	994	0	1,001	0.1
Explanation:	Transfer BC 21759 Eastern C&O New Parking Upgrade to BC 701				
2021	0.363	37	0	38	0.1
Explanation:	Transfer 21765 Survey Control Network to BC 701.				
2021 Total	65	3,306	0	3,371	1.3

Note: Totals may include rounding differences.

**Beginning of Workpaper Sub Details for
Workpaper Group 007010**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 007010 - STRUCTURES & IMPROVEMENTS BLANKET
 Workpaper Detail: 007010.001 - Structures & Improvements Blanket - Non Shared Service Projects
 In-Service Date: Not Applicable
 Description:

Forecast based on 3 - year historical average Non Shared Service Blanket Projects

Forecast In 2021 \$(000)			
Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor	105	66	107
Non-Labor	5,158	3,249	5,236
NSE	0	0	0
Total	<u>5,263</u>	<u>3,315</u>	<u>5,343</u>
FTE	0.9	0.5	0.8

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 007010 - STRUCTURES & IMPROVEMENTS BLANKET
 Workpaper Detail: 007010.002 - Structures & Improvements Blanket - Shared Service Project
 In-Service Date: 04/30/2022

Description:

Budget Code 701 - Shared Service Project 2021-000038 - Greencraig B Warehouse Heater Install

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		2	0	0
Non-Labor		78	0	0
NSE		0	0	0
	Total	80	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 007010 - STRUCTURES & IMPROVEMENTS BLANKET
 Workpaper Detail: 007010.003 - Structures & Improvements Blanket - Shared Service Project
 In-Service Date: 07/31/2023

Description:

Budget Code 701 - Shared Service Project - 2021-000078 RBDC Lighting Control System

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		0	6	0
Non-Labor		0	267	0
NSE		0	0	0
	Total	0	273	0
FTE		0.0	0.1	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 007010 - STRUCTURES & IMPROVEMENTS BLANKET
 Workpaper Detail: 007010.004 - Structures & Improvements Blanket - Shared Service Project
 In-Service Date: 10/31/2023

Description:

Budget Code 701 - Shared Service Project - 2021-000208 Eastern Building 1 Roof Replacement

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		0	15	0
Non-Labor		0	746	0
NSE		0	0	0
	Total	0	761	0
FTE		0.0	0.1	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 007010 - STRUCTURES & IMPROVEMENTS BLANKET
 Workpaper Detail: 007010.005 - Structures & Improvements Blanket - Shared Service Project
 In-Service Date: 09/30/2023

Description:

Budget Code 701 - Shared Service Project - 2019-000148 CP6 Restroom Improvements

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		0	20	0
Non-Labor		0	974	0
NSE		0	0	0
	Total	0	994	0
FTE		0.0	0.1	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 007010

Budget Code Grouping	BC Name	Budget Code	BC Name	Fiscal year					Grand Total	3 - Year Average (2019-2021)
				2017	2018	2019	2020	2021		
00701.0	STRUCTURES & IMPROVEMENTS BLANKET	00701.0	STRUCTURES & IMPROVEMENTS BLANKET	5,300,970	2,628,847	4,416,869	5,099,833	6,512,116	23,958,635	5,342,939
00701.0	STRUCTURES & IMPROVEMENTS	17773.0	CASPIAN CRANE AREA OVERLAY PAVING	1,135,082	1,318,957				2,454,039	
00701.0	STRUCTURES & IMPROVEMENTS	18783.0	EASTERN C&O WAREHOUSE CANOPY & FIRE PROT		461,946	1,094,917	371,315	792	1,928,970	
00701.0	STRUCTURES & IMPROVEMENTS	20750.0	CP1 HVAC ROOFTOP REPLACEMENT				1,045,169		1,045,169	
00701.0	STRUCTURES & IMPROVEMENTS	20751.0	EASTERN C&O SITE ASPHALT REPLACEMENT					112,855	112,855	
00701.0	STRUCTURES & IMPROVEMENTS	20752.0	CASPIAN BLDG A PAVING AND SECURITY				1,283,076	58,028	1,341,104	
00701.0	STRUCTURES & IMPROVEMENTS	20755.0	NE WAREHOUSE OGW ROOF REPLACEMENT				1,493,978	4,626	1,498,604	
00701.0	STRUCTURES & IMPROVEMENTS	20760.0	METRO WAREHOUSE ROOF REPLACEMENT				1,544,988	96,183	1,641,171	
00701.0	STRUCTURES & IMPROVEMENTS	20761.0	CASPIAN DRIVE AISLE REPAIR - PH2				669,543	845,014	1,514,557	
00701.0	STRUCTURES & IMPROVEMENTS	20780.0	GREENCRAIG B LOT PAVING			2,387	607,784	718,018	1,328,189	
00701.0	STRUCTURES & IMPROVEMENTS	20781.0	EASTERN WAREHOUSE RACKING REPLACEMENT				1,913,583	118,238	2,031,821	
00701.0	STRUCTURES & IMPROVEMENTS	20782.0	RAMONA LINEMAN CANOPY			54,771	877,135	42,150	974,056	
00701.0	STRUCTURES & IMPROVEMENTS	20788.0	CASPIAN BUILDING A TENANT IMPROVEMENTS				1,724,696	10,092	1,734,787	
00701.0	STRUCTURES & IMPROVEMENTS	21729.0	EASTERN ROOF REPLACEMENT					907,238	907,238	
00701.0	STRUCTURES & IMPROVEMENTS	21737.0	METRO YARD ASPHALT REPLACEMENT					104,119	104,119	
00701.0	STRUCTURES & IMPROVEMENTS	21738.0	BEACH CITIES STORAGE YARD ASPHALT REPLAC					74,308	74,308	
00701.0	STRUCTURES & IMPROVEMENTS	21739.0	MOUNTAIN EMPIRE LINE TRUCK CANOPY					246,581	246,581	
00701.0	STRUCTURES & IMPROVEMENTS	21746.0	MOUNTAIN EMPIRE DRIVE AISLE PAVING					209,124	209,124	
00701.0	STRUCTURES & IMPROVEMENTS	21749.0	BEACH CITIES RACKING & CANOPY INSTALL					270,522	270,522	
00701.0	STRUCTURES & IMPROVEMENTS	21750.0	CASPIAN BUILDING A TI-PH2				323,203	1,123,840	1,447,042	
00701.0	STRUCTURES & IMPROVEMENTS	21753.0	MOUNTAIN EMPRIE GARAGE ROOF REPLACEMENT					45,890	45,890	
00701.0	STRUCTURES & IMPROVEMENTS	21756.0	BEACH CITIES ROOF REPLACEMENT					187,665	187,665	
00701.0	STRUCTURES & IMPROVEMENTS	21758.0	METRO FUEL ISLAND					40,803	40,803	
00701.0	STRUCTURES & IMPROVEMENTS	21759.0	EASTERN C&O NEW PARKING UPGRADE					1,002,334	1,002,334	
00701.0	STRUCTURES & IMPROVEMENTS	21765.0	SURVEY CONTROL NETWORK					37,738	37,738	
00701.0 Total				6,436,052	4,409,750	5,568,943	16,954,302	12,768,273	46,137,321	

3-year historical average calculated only on blanket projects included in the Budget Code 701 blanket. Projects with total budgets over \$1M and associated with a specific budget code are not included in 3-year average calculations.

GRC Budget Code	Project Budget Code	GRC Workpaper	Proj_ID	Project Name	2022	2023	2024	2021-2024 Total
701	701 Structures & Improvements Blanket		2021-000023	701 Structures & Improvements Blanket	2,225,060	1,139,682	5,342,939	8,707,681
701	701 Structures & Improvements	007010.02	2021-000038	Greencraig B Warehouse Heater Install	80,000	-	-	80,000
701	701 Structures & Improvements	007010.03	2021-000078	RBDC Lighting Control System	-	272,000	-	272,000
701	701 Structures & Improvements	007010.04	2021-000208	Eastern Bldg 1 Roof Replacement	-	762,000	-	762,000
701	701 Structures & Improvements	007010.05	2019-000148	CP6 Restroom Improvements	-	994,000	-	994,000
701	701 Structures & Improvements	007010.01	2021-000101	Eastern Microwave Bldg Roof Replacement	3,500	-	-	3,500
701	701 Structures & Improvements	007010.01	2021-000125	Kearny Trailers 1&2 Restoration	176,000	-	-	176,000
701	701 Structures & Improvements	007010.01	2021-000148	Miramar Bldg A 1st Floor Window Replacement	193,000	-	-	193,000
701	701 Structures & Improvements	007010.01	2021-000059	Miramar Bldg A Roof Replacement	16,000	-	-	16,000
701	701 Structures & Improvements	007010.01	2021-000133	Miramar Quest Garage Lighting Improvements	50,000	-	-	50,000
701	701 Structures & Improvements	007010.01	2021-000132	Miramar Quest Garage Roll-Up Door Replacement	161,000	-	-	161,000
701	701 Structures & Improvements	007010.01	2021-000070	Miramar Quest Garage Roof Replacement	227,000	-	-	227,000
701	701 Structures & Improvements	007010.01	2021-000107	Miramar Site Racking Installation	213,000	-	-	213,000
701	701 Structures & Improvements	007010.01	2021-000067	Miramar Trailer B1 & B2 Roof Replacement	51,000	-	-	51,000
701	701 Structures & Improvements	007010.01	2021-000090	Mission Bldg G Roof Replacement	10,000	-	-	10,000
701	701 Structures & Improvements	007010.01	2018-000158	Mission Control Bldg A Exterior LED Light Conversion	70,000	-	-	70,000
701	701 Structures & Improvements	007010.01	2021-000120	Mission Control Elevator Improvements	120,000	-	-	120,000
701	701 Structures & Improvements	007010.01	2021-000109	Mission Skills Lineman Training Poles	21,000	-	-	21,000
701	701 Structures & Improvements	007010.01	2021-000057	Northcoast OGW Roof Replacement	363,000	-	-	363,000
701	701 Structures & Improvements	007010.01	2021-000069	OCCO Admin Bldg 1 Roof Replacement	395,000	-	-	395,000
701	701 Structures & Improvements	007010.01	2021-000073	Palomar LED Lighting Replacement	266,379	-	-	266,379
701	701 Structures & Improvements	007010.01	2019-000164	Ramona Tool Container Improvement	41,000	-	-	41,000
701	701 Structures & Improvements	007010.01	2021-000087	Ramona Warehouse Exterior Shell Improvements	415,000	-	-	415,000
701	701 Structures & Improvements	007010.01	2021-000100	Eastern Warehouse Roof Replacement	57,000	-	-	57,000
701	701 Structures & Improvements	007010.01	2021-000176	Eastern District Office Roof Replacement	-	598,000	-	598,000
701	701 Structures & Improvements	007010.01	2015-000115	Eastern Garage Roof Replacement	17,000	-	-	17,000
701	701 Structures & Improvements	007010.01	2021-000122	Miramar Trailer B2 Sink Installation	-	366,000	-	366,000
701	701 Structures & Improvements	007010.01	2021-000181	Northeast Logistics Racking Improvements	-	234,000	-	234,000
701	701 Structures & Improvements	007010.01	2021-000043	Palomar Admin Building Roof Replacement	-	977,257	-	977,257
701	701 Structures & Improvements	007010.01	2021-000213	Northeast Street Repair Bin Canopy	150,000	-	-	150,000
701	701 Structures & Improvements	007010.01	2021-000094	OCCO Exterior LED Light Replacement	22,000	-	-	22,000
					5,342,939	5,342,939	5,342,939	16,028,817

Beginning of Workpaper Group
00701A - Beach Cities Racking & Canopy Installation

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701A - Beach Cities Racking & Canopy Installation

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	21	61	0
Non-Labor	Zero-Based	0	0	0	0	0	1,041	3,001	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	1,062	3,062	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.0

Business Purpose:

The site storage at the Beach Cities C&O center is optimized for storage "on-grade" and is currently at maximum capacity. Additional above-grade storage capacity is required to accommodate increased levels of inventory. Due to the close proximity to the ocean, materials stored at the Beach Cities C&O have historically experienced premature aging due to ongoing exposure to the elements. To combat the exposure to the elements, this project will also include the construction of canopies which provide shelter for both the new and existing racking.

Physical Description:

Project will include the installation of approximately 630 linear feet of galvanized multi-level mezzanine racks and approximately 267 linear feet of galvanized pallet racking. Mezzanine racking will include additional structure for the affordance of future solar installations atop the mezzanine decking.

Project Justification:

This project will add the needed additional storage capacity as well as provide weather protection for materials while they are being stored in inventory.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00701.0
Category: B. Structures & Improvements
Category-Sub: 1. Structures & Improvements
Workpaper Group: 00701A - Beach Cities Racking & Canopy Installation

Forecast Methodology:

Labor - Zero-Based

Zero Based

Non-Labor - Zero-Based

Zero Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701A - Beach Cities Racking & Canopy Installation
 Workpaper Detail: 00701A.001 - 2021-000013 Beach Cities Racking & Canopy Installation
 In-Service Date: 03/31/2023
 Description:

Budget Code 701 - Zero Based Project Estimate

Forecast In 2021 \$(000)			
Years	2022	2023	2024
Labor	21	61	0
Non-Labor	1,041	3,001	0
NSE	0	0	0
Total	1,062	3,062	0
FTE	0.2	0.5	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00701A

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

2021-000013 Beach Cities Racking & Canopy Installation
Pre-Authorization Scoping Estimate

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	173,350	1.00	173,350
Geotechnical Engineering	10,000	1.00	10,000
Reprographics	2,000	1.00	2,000
Plan Checks & Permits	5,000	1.00	5,000
Testing & Inspections	10,000	1.00	10,000
Construction			
Construction Services	3,278,926	1.00	3,278,926
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	5,000	1.00	5,000
Soil Sampling/Analysis	5,000	1.00	5,000
SWPPP Preparation	3,500	1.00	3,500
SWPPP Monitoring	5,000	1.00	5,000
Mitigation Monitoring	5,000	1.00	5,000
Removal			
Misc HazMat Disposal	5,000	1.00	5,000
Real Estate & Planning			
Signage (Exterior)	2,500	1.00	2,500
Subtotal			3,510,276
Contingency @ 10%			351,028
Construction Cost Totals			3,861,303
Company CPM Labor			22,622
Company Support Labor			40,014
Contracted Labor			201,061
PM, Labor Cost Totals			263,697

Project Total	4,125,000
----------------------	------------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	78.01	6,631
Project Analyst (Company)	75	78.01	5,850
Business Analyst (Company)	75	78.01	5,850
Facilities Specialist (Company)	55	78.01	4,290
Company Support Labor			
Facility Mgr. (Company)	65	342.00	22,230
Environmental Site Rep. (Company)	65	136.80	8,892
Safety Site Rep. (Company)	65	136.80	8,892
Contracted Labor			
Project Management (Outside Labor)			184,289
Project Coordination (Outside Labor)	75	156.01	11,701
Document Control (Outside Labor)	65	78.01	5,070
Subtotal			263,697

Beginning of Workpaper Group
00701B - Beach Cities Storage Yard Asphalt Replacement

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701B - Beach Cities Storage Yard Asphalt Replacement

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	0	67	0
Non-Labor	Zero-Based	0	0	0	0	0	0	3,259	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	3,326	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0

Business Purpose:

The drive aisles located in the logistics storage area are heavily traversed by forklifts and other heavy equipment is causing rapid wear and deterioration to the asphalt surfacing. The wear and deterioration ultimately results in development of ruts, potholes and degradation of the surface to gravel in heavily trafficked areas. This project will replace the existing asphalt paving with a more durable concrete solution that will be able to better handle the high traffic and the transportation of heavy loads.

Physical Description:

The scope of work will include the complete removal of the asphalt paving, excavate soils, recompact subgrade, installation of new concrete, curbing, striping, draining and bio basins where applicable.

Project Justification:

The replacement of the existing asphalt paving with a more durable concrete solution will reduce potential downtime required for maintenance and repairs as well as provide a safer work environment through the elimination of hazards caused by the frequent rutting and potholes. The new concrete paving will also be able to better withstand the movement of the heavy equipment used in the storage yards.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00701.0
Category: B. Structures & Improvements
Category-Sub: 1. Structures & Improvements
Workpaper Group: 00701B - Beach Cities Storage Yard Asphalt Replacement

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701B - Beach Cities Storage Yard Asphalt Replacement
 Workpaper Detail: 00701B.001 - 2019-000102 - Beach Cities Storage Yard Asphalt Replacement
 In-Service Date: 12/31/2023
 Description:

Budget Code 708 Zero Based Budget

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		0	67	0
Non-Labor		0	3,259	0
NSE		0	0	0
	Total	0	3,326	0
FTE		0.0	0.5	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00701B

**2019-000102 Beach Cities Storage Yard Asphalt Replacement
Pre-Authorization Scoping Estimate**

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL	
		Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	110,000	1.00	110,000
Geotechnical Engineering	12,000	1.00	12,000
Reprographics	5,000	1.00	5,000
Permitting/Planning/Inspections			
Plan Checks & Permits	12,000	1.00	12,000
Testing & Inspections	20,000	1.00	20,000
Construction			
Construction Services	2,608,558	1.00	2,608,558
Environmental & Safety Services			
Soil Sampling/Analysis	7,137	1.00	7,137
SWPPP Preparation	5,000	1.00	5,000
SWPPP Monitoring	5,000	1.00	5,000
Removal			
Contaminated Soil Removal	50,000	1.00	50,000
Subtotal			2,834,695
Contingency @ 10%			283,469
Construction Cost Totals			3,118,164
Company CPM Labor			18,268
Company Support Labor			27,203
Contracted Labor			162,365
PM, Labor Cost Totals			207,836

Project Total	3,326,000
----------------------	------------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL	
		Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	62.99	5,354
Project Analyst (Company)	75	62.99	4,724
Business Analyst (Company)	75	62.99	4,724
Facilities Specialist (Company)	55	62.99	3,465
Company Support Labor			
Facility Mgr. (Company)			15,113
Environmental Site Rep. (Company)	65	93.00	6,045
Safety Site Rep. (Company)	65	93.00	6,045
Contracted Labor			
Project Management (Outside Labor)			148,821
Project Site Safety (Outside Labor)	75	125.99	9,449
Document Control (Outside Labor)	65	62.99	4,095
Subtotal			207,836

Beginning of Workpaper Group
00701C - Eastern C&O Site Asphalt Replacement

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701C - Eastern C&O Site Asphalt Replacement

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	1	55	0
Non-Labor	Zero-Based	0	0	0	0	0	45	2,695	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	46	2,750	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.0

Business Purpose:

The main North-South and East-West drive aisles located on the property are heavily traversed by line trucks, tractor trailers, forklifts and other heavy vehicles involved in supporting an operating center that maintains and constructs gas and electric distribution facilities throughout its assigned service territory. This project will replace degraded areas of asphalt and replace with concrete paving. Improvements to stormwater management through regrading and installation of new subgrade stormwater conveyance and filtration systems will also be provided while paved areas are opened to subgrade.

Physical Description:

The scope of work will include the complete removal of the asphalt paving in high traffic areas, excavation, pipe, basin and filter system replacements/additions, regrading and recompaction of subgrade, installation of new concrete, curb/gutter and pavement striping.

Project Justification:

The replacement of the existing asphalt paving with a more durable and lasting concrete solution will reduce potential operational downtime required for maintenance and repairs, as well as mitigate risks through the elimination of hazards caused by rutting and potholes. The new concrete paving will be more capable of withstanding the movement of heavy equipment that routinely traverses the property. Additionally, poor site drainage and resulting ponding is creating slip and vector control hazards, as well as accelerated paving deterioration, which will likewise be mitigated through this project.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00701.0
Category: B. Structures & Improvements
Category-Sub: 1. Structures & Improvements
Workpaper Group: 00701C - Eastern C&O Site Asphalt Replacement

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701C - Eastern C&O Site Asphalt Replacement
 Workpaper Detail: 00701C.001 - 2019-000104 - Eastern C&O Site Asphalt Replacement
 In-Service Date: 12/31/2023

Description:

Budget Code 701 - Zero Based Project Estimate

Forecast In 2021 \$(000)			
Years	2022	2023	2024
Labor	1	55	0
Non-Labor	45	2,695	0
NSE	0	0	0
Total	46	2,750	0
FTE	0.1	0.4	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00701C

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

**Eastern C&O Site Asphalt Replacement)
Pre-Authorization Scoping Estimate**

Item Description/ or Phase of Work	CAPITAL		
	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	116,760	1.00	116,760
Architectural Services	6,000	1.00	6,000
Permitting/Planning/Inspections			
Plan Checks & Permits	71,615	1.00	71,615
Testing & Inspections	20,000	1.00	20,000
Construction			
Construction Services	2,299,670	1.00	2,299,670
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	2,000	1.00	2,000
Removal			
Contaminated Soil Removal	5,000	1.00	5,000
Subtotal			2,521,045
Contingency @ 10%			252,104
Construction Cost Totals			2,773,149
Company CPM Labor			16,247
Company Support Labor			57,623
Contracted Labor			100,282
PM, Labor Cost Totals			174,151

Project Total	2,947,300
----------------------	------------------

Item Description/ or Phase of Work	CAPITAL		
	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	56.02	4,762
Project Analyst (Company)	75	56.02	4,202
Business Analyst (Company)	75	56.02	4,202
Facilities Specialist (Company)	55	56.02	3,081
Company Support Labor			
Facility Mgr. (Company)	65	492.50	32,013
Environmental Site Rep. (Company)	65	197.00	12,805
Safety Site Rep. (Company)	65	197.00	12,805
Contracted Labor			
Project Management (Outside Labor)			88,237
Project Site Safety (Outside Labor)	75	112.05	8,403
Document Control (Outside Labor)	65	56.02	3,642
Subtotal			174,151

Beginning of Workpaper Group
00701D - Mountain Empire Line Truck Canopy

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701D - Mountain Empire Line Truck Canopy

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Labor	Zero-Based	0	0	0	0	0	55	0	0
Non-Labor	Zero-Based	0	0	0	0	0	2,670	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	2,725	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0

Business Purpose:

Due to its location in the mountain region of San Diego County, the Mountain Empire C&O Center experiences weather fluctuations which expose company employees to extreme temperatures leading to workplace safety concerns. In an effort to shade employees and vehicles from adverse weather conditions, this project will construct a line truck canopy which will provide cover for approximately 9 vehicles.

Physical Description:

The construction of the line truck canopy will be comprised of galvanized steel, be open on three (3) sides and provide 19 foot vertical clearance. In order to maximize coverage, the canopy will extend over the existing warehouse roof. Each support column will provide LED lighting, power outlets and new shoreline charging capabilities.

Project Justification:

The construction of the new line truck canopy will create a safer work environment by protecting employees from heat related injuries as well as protect company vehicles from the year round weather events experienced at the Mountain Empire C&O Center.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00701.0
Category: B. Structures & Improvements
Category-Sub: 1. Structures & Improvements
Workpaper Group: 00701D - Mountain Empire Line Truck Canopy

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701D - Mountain Empire Line Truck Canopy
 Workpaper Detail: 00701D.001 - 2021-000010 - Mountain Empire Line Truck Canopy
 In-Service Date: 11/30/2022

Description:

Budget Code 701 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		55	0	0
Non-Labor		2,670	0	0
NSE		0	0	0
	Total	<u>2,725</u>	<u>0</u>	<u>0</u>
FTE		0.4	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00701D

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

**2021-00010 Mountain Empire Line Truck Canopy
Pre-Authorization Scoping Estimate**

	Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL	
			Quantity (or One)	Subtotal
Architectural and Engineering				
	Architectural and Engineering	97,700	1.00	97,700
	Civil Engineering	10,000	1.00	10,000
	Geotechnical Engineering	15,000	1.00	15,000
	Plan Checks & Permits	10,000	1.00	10,000
	Testing & Inspections	15,000	1.00	15,000
Construction				
	Construction Services	2,250,743	1.00	2,250,743
Environmental & Safety Services				
	Asbestos and Lead Sampling/Analysis	5,000	1.00	5,000
	Soil Sampling/Analysis	5,000	1.00	5,000
Removal				
	Asbestos and Lead Abatement	10,000	1.00	10,000
IT, Audio Visual & Security				
	Security & Surveillance (access control / Surveillance)	20,000	1.00	20,000
	Security Equipment		1.00	-
	Subtotal			2,438,443
	Contingency @ 10%			243,844
	Construction Cost Totals			2,682,288
	Company CPM Labor			10,217
	Company Support Labor			24,921
	Contracted Labor			7,575
	PM, Labor Cost Totals			42,712

Project Total	2,725,000
----------------------	------------------

	Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL	
			Hours (or One)	Subtotal
Company CPM Labor				
	Program Management (Company)	85	35.23	2,995
	Project Analyst (Company)	75	35.23	2,642
	Business Analyst (Company)	75	35.23	2,642
	Facilities Specialist (Company)	55	35.23	1,938
Company Support Labor				
	Facility Mgr. (Company)	65	213.00	13,845
	Environmental Site Rep. (Company)	65	85.20	5,538
	Safety Site Rep. (Company)	65	85.20	5,538
Contracted Labor				
	Project Coordination (Outside Labor)	75	70.46	5,285
	Document Control (Outside Labor)	65	35.23	2,290
	Subtotal			42,712

Beginning of Workpaper Group
00701E - Mountain Empire Garage Roof Replacement

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701E - Mountain Empire Garage Roof Replacement

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	20	0	0
Non-Labor	Zero-Based	0	0	0	0	0	958	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	978	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

Business Purpose:

The purpose of this project is to replace the garage roof which has reached its end-of-life at the Mountain Empire C&O Center. This project will also reinforce the roof structure in preparation of future solar panel installation.

Physical Description:

The project will include the installation of a new standing seam roof on Building 1 and the Warehouse Garage located at the Mountain Empire C&O Center. The scope will also include structural reinforcements (where required) in support of future solar system installations.

Project Justification:

The current garage roof has reached its end-of-life and is in need of replacement. Postponing the roof replacement could potentially lead to leakage driven damages to the contents of the office or garage warehouse and /or increase potential safety risks.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00701.0
Category: B. Structures & Improvements
Category-Sub: 1. Structures & Improvements
Workpaper Group: 00701E - Mountain Empire Garage Roof Replacement

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701E - Mountain Empire Garage Roof Replacement
 Workpaper Detail: 00701E.001 - 2021-000099 - Mountain Empire Garage Roof Replacement
 In-Service Date: 04/30/2022
 Description:

Budget Code 701 - Zero Based Project Estimate

Forecast In 2021 \$(000)			
Years	2022	2023	2024
Labor	20	0	0
Non-Labor	958	0	0
NSE	0	0	0
Total	978	0	0
FTE	0.1	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00701E

Mountain Empire Garage Roof Replacement Authorized Project Budget

		CAPITAL	
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Permitting/Planning/Inspections			
Plan Checks & Permits	2,000	1.00	2,000
Construction			
Construction Services	839,651	1.00	839,651
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	5,000	1.00	5,000
Soil Sampling/Analysis	5,000	1.00	5,000
Safety	5,000	1.00	5,000
Removal			
Asbestos and Lead Abatement	40,000	1.00	40,000
Real Estate & Planning			
Moving Costs	10,000	1.00	10,000
Audio Visual Equipment	20,000	1.00	20,000
Subtotal			926,651
Contingency @ 10%			92,665
Scoping Escalation @ 0%			-
Construction Cost Totals			1,019,316
Company CPM Labor			8,269
Company Support Labor			17,726
Contracted Labor			6,130
PM, Labor Cost Totals			32,124

Project Total	1,051,440
----------------------	------------------

		CAPITAL	
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	28.51	2,424
Project Analyst (Company)	75	28.51	2,138
Business Analyst (Company)	75	28.51	2,138
Facilities Specialist (Company)	55	28.51	1,568
Company Support Labor			
Facility Mgr. (Company)	65	151.50	9,848
Environmental Site Rep. (Company)	65	60.60	3,939
Safety Site Rep. (Company)	65	60.60	3,939
Contracted Labor			
Project Coordination (Outside Labor)	75	57.02	4,277
Document Control (Outside Labor)	65	28.51	1,853
Subtotal			32,124

Beginning of Workpaper Group
00701F - Metro C&O Yard Asphalt Replacement

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701F - Metro C&O Yard Asphalt Replacement

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	0	36	0
Non-Labor	Zero-Based	0	0	0	0	0	0	1,786	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	1,822	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0

Business Purpose:

The drive aisles located in the logistics storage area are heavily traversed by forklifts and other heavy equipment is causing rapid wear and deterioration to the asphalt surfacing. The wear and deterioration ultimately results in development of ruts, potholes and degradation of the surface to gravel in heavily trafficked areas. This project will replace the existing asphalt paving with a more durable concrete solution that will be able to better handle the high traffic and the transportation of heavy loads.

Physical Description:

The scope of work will include the complete removal of the asphalt paving, excavate soils, recompact subgrade, installation of new concrete, curbing, striping, draining and bio basins where applicable.

Project Justification:

The replacement of the existing asphalt paving with a more durable concrete solution will reduce potential downtime required for maintenance and repairs as well as provide a safer work environment through the elimination of hazards caused by the frequent rutting and potholes. The new concrete paving will also be able to better withstand the movement of the heavy equipment used in the storage yards.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00701.0
Category: B. Structures & Improvements
Category-Sub: 1. Structures & Improvements
Workpaper Group: 00701F - Metro C&O Yard Asphalt Replacement

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701F - Metro C&O Yard Asphalt Replacement
 Workpaper Detail: 00701F.001 - 2019-000105 - Metro C&O Yard Pavement
 In-Service Date: 06/30/2023

Description:

Budget Code 701 - Zero Based Project Estimate

Forecast In 2021 \$(000)			
Years	2022	2023	2024
Labor	0	36	0
Non-Labor	0	1,786	0
NSE	0	0	0
Total	0	1,822	0
FTE	0.0	0.3	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00701F

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

**2019-000105 Metro C&O Storage Yard Pavement
Pre-Authorization Scoping Estimate**

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	39,500	2.00	79,000
Reprographics	5,000	1.00	5,000
Plan Checks & Permits	6,000	1.00	6,000
Testing & Inspections	20,000	1.00	20,000
Construction			
Construction Services	1,402,185	1.00	1,402,185
Enviromental & Safety Services			
Soil Sampling/Analysis	5,000	1.00	5,000
SWPPP Monitoring	5,000	1.00	5,000
Mitigation Monitoring	3,500	1.00	3,500
Removal			
Contaminated Soil Removal	25,000	1.00	25,000
Subtotal			1,550,685
Contingency @ 10%			155,068
Construction Cost Totals			1,705,753
Company CPM Labor			6,717
Company Support Labor			23,517
Contracted Labor			86,013
PM, Labor Cost Totals			116,247

Project Total	1,822,000
----------------------	------------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	5.00	425
Project Analyst (Company)	75	30.69	2,302
Business Analyst (Company)	75	30.69	2,302
Facilities Specialist (Company)	55	30.69	1,688
Company Support Labor			
Facility Mgr. (Company)	65	201.00	13,065
Environmental Site Rep. (Company)	65	80.40	5,226
Safety Site Rep. (Company)	65	80.40	5,226
Contracted Labor			
Project Management (Outside Labor)			79,414
Project Site Safety (Outside Labor)	75	61.38	4,604
Document Control (Outside Labor)	65	30.69	1,995
Subtotal			116,247

Beginning of Workpaper Group
00701G - Metro Fuel Island Improvements

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701G - Metro Fuel Island Improvements

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	1	34	0
Non-Labor	Zero-Based	0	0	0	0	0	64	1,667	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	65	1,701	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0

Business Purpose:

The fuel island located at the Metro C&O Center currently only supports the fueling of a single vehicle at time due to the single drive aisle configuration. Since the current fuel island can only support the fueling of a single vehicle at one time, bottlenecks at the fuel line are causing long wait times which in turn are leading to lost productivity of the field crews. This project will improve the fuel island by adding a second drive aisle which will allow for the fueling vehicles on both sides of the island.

Physical Description:

The project will consist of engaging an architect/engineer, and ultimately a contractor to improve and expand the existing fuel island at Metro. This will include the addition of a new pump with dual dispensers and all associated site work to allow for fueling on both sides of the island.

Project Justification:

The current fuel island was installed in 1989 and can no longer meet the fueling requirements at the C&O center. The new fuel island with dual sided fueling capabilities will help reduce the bottlenecks that are causing long waits for vehicle fueling which will lead to increased productivity for the field crews.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00701.0
Category: B. Structures & Improvements
Category-Sub: 1. Structures & Improvements
Workpaper Group: 00701G - Metro Fuel Island Improvements

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701G - Metro Fuel Island Improvements
 Workpaper Detail: 00701G.001 - 2021-000014 - Metro Fuel Island Improvements
 In-Service Date: 06/30/2023

Description:

Budget Code 701 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		1	34	0
Non-Labor		64	1,667	0
NSE		0	0	0
	Total	<u>65</u>	<u>1,701</u>	<u>0</u>
FTE		0.1	0.3	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00701G

2021-000014 Metro Fuel Island Improvements Pre-Authorization Scoping Budget

		CAPITAL		
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal	
Architectural and Engineering				
Architectural Services	131,640	1.00	131,640	
Reprographics	3,000	1.00	3,000	
Pre-Construction Services	10,000	1.00	10,000	
Permitting/Planning/Inspections				
Plan Checks & Permits	7,500	1.00	7,500	
Testing & Inspections	12,500	1.00	12,500	
Construction				
Construction Services	1,318,439	1.00	1,318,439	
Environmental & Safety Services				
Soil Sampling/Analysis	8,000	1.00	8,000	
SWPPP Preparation	5,000	1.00	5,000	
SWPPP Monitoring	7,500	1.00	7,500	
Mitigation Monitoring	7,500	1.00	7,500	
Removal				
Misc HazMat Disposal	25,000	1.00	25,000	
Contaminated Soil Removal	25,000	1.00	25,000	
IT, Audio Visual & Security				
IT Consulting Services	2,500	1.00	2,500	
IT Equipment	7,500	1.00	7,500	
Subtotal			1,571,079	
Contingency @ 10%			157,108	
Construction Cost Totals			1,728,187	
Company CPM Labor			1,628	
Company Support Labor			19,188	
Contracted Labor			16,997	
PM, Labor Cost Totals			37,813	
			Project Total	1,766,000
		CAPITAL		
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal	
Company CPM Labor				
Program Management (Company)	85	5.61	477	
Project Analyst (Company)	75	5.61	421	
Business Analyst (Company)	75	5.61	421	
Facilities Specialist (Company)	55	5.61	309	
Company Support Labor				
Facility Mgr. (Company)	65	164.00	10,660	
Environmental Site Rep. (Company)	65	65.60	4,264	
Safety Site Rep. (Company)	65	65.60	4,264	
Contracted Labor				
Project Management (Outside Labor)			15,790	
Project Site Safety (Outside Labor)	75	11.23	842	
Document Control (Outside Labor)	65	5.61	365	
Subtotal			37,813	

Beginning of Workpaper Group
00701H - Mountain Empire Drive Aisle Paving

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701H - Mountain Empire Drive Aisle Paving

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	25	25	0
Non-Labor	Zero-Based	0	0	0	0	0	1,246	1,246	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	1,271	1,271	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0

Business Purpose:

The drive aisles located in the logistics storage area are heavily traversed by forklifts and other heavy equipment is causing rapid wear and deterioration to the asphalt surfacing. The wear and deterioration ultimately results in development of ruts, potholes and degradation of the surface to gravel in heavily trafficked areas. This project will replace the existing asphalt paving with a more durable concrete solution that will be able to better handle the high traffic and the transportation of heavy loads.

Physical Description:

The scope of work will include the complete removal of the asphalt paving, excavate soils, recompact subgrade, installation of new concrete, curbing, striping, draining and bio basins where applicable.

Project Justification:

The scope of work will include the complete removal of the asphalt paving, excavate soils, recompact subgrade, installation of new concrete, curbing, striping, draining and bio basins where applicable.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00701.0
Category: B. Structures & Improvements
Category-Sub: 1. Structures & Improvements
Workpaper Group: 00701H - Mountain Empire Drive Aisle Paving

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701H - Mountain Empire Drive Aisle Paving
 Workpaper Detail: 00701H.001 - 2021-000011 - Mountain Empire Drive Aisle Paving
 In-Service Date: 06/30/2023

Description:

Budget Code 701 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		25	25	0
Non-Labor		1,246	1,246	0
NSE		0	0	0
	Total	1,271	1,271	0
FTE		0.2	0.2	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00701H

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

2021-000011 Mt. Empire Drive Aisle Paving
Pre-Authorization Scoping Estimate

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural Services	166,563	1.00	166,563
Geotechnical Engineering	10,000	1.00	10,000
Reprographics	500	1.00	500
Permitting/Planning/Inspections			
Plan Checks & Permits	40,000	1.00	40,000
Testing & Inspections	40,000	1.00	40,000
Construction			
Construction Services	1,863,066	1.00	1,863,066
Asbestos and Lead Sampling/Analysis	8,000	1.00	8,000
Soil Sampling/Analysis	10,000	1.00	10,000
Biological Survey	10,000	1.00	10,000
Mitigation Monitoring	3,000	1.00	3,000
Removal			
Contaminated Soil Removal	5,000	1.00	5,000
Real Estate & Planning			
Moving Costs	10,000	1.00	10,000
Subtotal			2,166,129
Contingency @ 10%			216,613
Construction Cost Totals			2,382,742
Company CPM Labor			13,959
Company Support Labor			32,058
Contracted Labor			113,240
PM, Labor Cost Totals			159,258

Project Total	2,542,000
----------------------	------------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	48.14	4,092
Project Analyst (Company)	75	48.14	3,610
Business Analyst (Company)	75	48.14	3,610
Facilities Specialist (Company)	55	48.14	2,647
Company Support Labor			
Facility Mgr. (Company)	65	274.00	17,810
Environmental Site Rep. (Company)	65	109.60	7,124
Safety Site Rep. (Company)	65	109.60	7,124
Contracted Labor			
Project Management (Outside Labor)			102,891
Project Site Safety (Outside Labor)	75	96.27	7,220
Document Control (Outside Labor)	65	48.14	3,129
Subtotal			159,258

Beginning of Workpaper Group
00701I - SDG&E Survey Control Network

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 007011 - SDG&E Survey Control Network

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	6	29	0
Non-Labor	Zero-Based	0	0	0	0	0	294	1,421	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	300	1,450	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0

Business Purpose:

SDG&E has established some Survey Control monuments sporadically on an individual project basis, but it is scarce throughout the service territory. This project would expand and create a comprehensive Control Network to ensure all Land Surveying performed within the company are done uniformly regarding Epoch date and coordinate datums. This will provide greater accuracy of horizontal and vertical data collected across the SDG&E service territory.

Physical Description:

This project will install approximately 120 survey monuments in the SDG&E service territory. The project scope will include: 1) Survey and select locations of new control monuments, 2) Install control monuments at selected locations and 3) Creation of survey map and record monuments with the County of San Diego.

Project Justification:

The purpose for this scope would be to densify the SDG&E Control Network which will allow surveyors to create higher quality, more reliability, and consistency across company deliverables of CAD drawings, PLS-CADD and LiDAR data.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00701.0
Category: B. Structures & Improvements
Category-Sub: 1. Structures & Improvements
Workpaper Group: 007011 - SDG&E Survey Control Network

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701I - SDG&E Survey Control Network
 Workpaper Detail: 00701I.001 - 2021-000126 - SDG&E Survey Control Network Improvements
 In-Service Date: 10/31/2023

Description:

Budget Code 701 - Zero Based Project Estimate

Forecast In 2021 \$(000)			
Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor	6	29	0
Non-Labor	294	1,421	0
NSE	0	0	0
Total	<u>300</u>	<u>1,450</u>	<u>0</u>
FTE	0.1	0.2	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 007011

2021-000126 SDGE Survey Control Network
Pre-Authorization Scoping Estimate

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
Permitting/Planning/Inspections			
Plan Checks & Permits	129,400	1.00	129,400
Construction			
Construction Services	1,228,671	1.00	1,228,671
Subtotal			1,358,071
Contingency @ 10%			135,807
Scoping Escalation @ 0%			-
Construction Cost Totals			1,493,878
Company CPM Labor			8,710
Company Support Labor			46,267
Contracted Labor			201,145
PM, Labor Cost Totals			256,122
Project Total			1,750,000

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
Company CPM Labor			
Program Management (<i>Company</i>)	85	30.03	2,553
Project Analyst (<i>Company</i>)	75	30.03	2,253
Business Analyst (<i>Company</i>)	75	30.03	2,253
Facilities Specialist (<i>Company</i>)	55	30.03	1,652
Company Support Labor			
Land Planning Rep. (<i>Company</i>)	65	535.00	34,775
Environmental Site Rep. (<i>Company</i>)	65	88.40	5,746
Safety Site Rep. (<i>Company</i>)	65	88.40	5,746
Contracted Labor			
Project Management (<i>Outside Labor</i>)			194,688
Project Coordination (<i>Outside Labor</i>)	75	60.07	4,505
Document Control (<i>Outside Labor</i>)	65	30.03	1,952
Subtotal			256,122

Beginning of Workpaper Group
00701J - Eastern C&O New Parking Upgrade

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701J - Eastern C&O New Parking Upgrade

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	5	0	0
Non-Labor	Zero-Based	0	0	0	0	0	232	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	237	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

Business Purpose:

The Eastern C&O is in need for additional parking capacity for both employees and visitors. The lack of parking has caused customers and employees to park in reserved or restricted areas as there is no overflow parking access available at the C&O.

Physical Description:

This project will create new parking space in an area which previously occupied by fuel tanks. The project scope will include site grading, retaining walls, asphalt and base material, berm and curbing to support the slope from the above parking lot. Also included in the scope are two storm water bio-filtration basins and updates to the drive aisle to accommodate the new parking.

Project Justification:

This project will deliver additional parking capacity for employees and visitors which will alleviate the current parking shortages being experienced at the C&O Center.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00701.0
Category: B. Structures & Improvements
Category-Sub: 1. Structures & Improvements
Workpaper Group: 00701J - Eastern C&O New Parking Upgrade

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00701.0
 Category: B. Structures & Improvements
 Category-Sub: 1. Structures & Improvements
 Workpaper Group: 00701J - Eastern C&O New Parking Upgrade
 Workpaper Detail: 00701J.001 - 2013-001123 Eastern C&O New Parking Upgrade
 In-Service Date: 06/30/2022

Description:

Budget Code 701 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		5	0	0
Non-Labor		232	0	0
NSE		0	0	0
	Total	237	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00701J

**2013-001123 Eastern C&O Parking Upgrade
Authorized Project Budget**

		CAPITAL	
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	40,920	1.00	40,920
Additional Architectural Services	41,800	1.00	41,800
Geotechnical Engineering	8,220	1.00	8,220
Permitting/Planning/Inspections			
Plan Checks & Permits	7,325	1.00	7,325
Testing & Inspections	8,220	1.00	8,220
Construction			
Construction	951,089	1.05	998,643
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	5,000	1.00	5,000
Asbestos and Lead Remediation	15,000	1.00	15,000
Subtotal			1,125,128
Contingency @ 20%			225,026
Scoping Escalation @ 0%			-
Construction Cost Totals			1,350,154
Company CPM Labor			7,251
Company Support Labor			46,274
Contracted Labor			67,258
PM, Labor Cost Totals			120,782

Project Total	1,470,936
----------------------	------------------

		CAPITAL	
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor			
Program Management (<i>Company</i>)	85	25.00	2,125
Project Analyst (<i>Company</i>)	75	25.00	1,875
Business Analyst (<i>Company</i>)	75	25.00	1,875
Facilities Specialist (<i>Company</i>)	55	25.00	1,375
Company Support Labor			
Facility Mgr. (<i>Company</i>)	65	395.50	25,708
Environmental Site Rep. (<i>Company</i>)	65	158.20	10,283
Safety Site Rep. (<i>Company</i>)	65	158.20	10,283
Contracted Labor			
Project Management (<i>Outside Labor</i>)			61,882
Project Site Safety (<i>Outside Labor</i>)	75	50.01	3,750
Document Control (<i>Outside Labor</i>)	65	25.00	1,625

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Category: C. Safety and Environmental
Workpaper: VARIOUS

Summary for Category: C. Safety and Environmental

	In 2021\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Labor	56	43	110	39
Non-Labor	3,653	2,125	5,398	1,919
NSE	0	0	0	0
Total	3,709	2,168	5,508	1,958
FTE	0.5	0.5	0.9	0.4

007030 SAFETY/ENVIRONMENTAL

Labor	56	39	39	39
Non-Labor	3,653	1,919	1,919	1,919
NSE	0	0	0	0
Total	3,709	1,958	1,958	1,958
FTE	0.5	0.4	0.4	0.4

00703A Miramar Hazmat Site Storage Expansion

Labor	0	4	71	0
Non-Labor	0	206	3,479	0
NSE	0	0	0	0
Total	0	210	3,550	0
FTE	0.0	0.1	0.5	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
007030 - SAFETY/ENVIRONMENTAL

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00703.0
 Category: C. Safety and Environmental
 Category-Sub: 1. Safety and Environmental
 Workpaper Group: 007030 - SAFETY/ENVIRONMENTAL

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	24	54	89	67	56	39	39	39
Non-Labor	Zero-Based	1,883	815	3,017	3,088	3,653	1,919	1,919	1,919
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		1,907	870	3,106	3,155	3,710	1,958	1,958	1,958
FTE	Zero-Based	0.2	0.5	0.7	0.5	0.5	0.4	0.4	0.4

Business Purpose:

This budget funds building and system modifications, site upgrades, and other facility improvements necessary to comply with safety and environmental code or regulations, or implement best practices towards mitigating risk to either the environment or safety of employees or the public. 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 new regulations. Common project types covered in this budget code include improvements to meet storm water management regulations. Storm water compliance includes physical changes to the site including drainage control, curbs and berms, coverings to manage the flow of storm water and other best management practices. Concrete pads and hazardous waste storage are examples of other projects 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 would also be included.

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
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00703.0
Category: C. Safety and Environmental
Category-Sub: 1. Safety and Environmental
Workpaper Group: 007030 - SAFETY/ENVIRONMENTAL

Forecast Methodology:

Labor - Zero-Based

3 Year Average

Non-Labor - Zero-Based

3 Year Average

NSE - Zero-Based

N/A

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00703.0
 Category: C. Safety and Environmental
 Category-Sub: 1. Safety and Environmental
 Workpaper Group: 007030 - SAFETY/ENVIRONMENTAL

Summary of Adjustments to Forecast

In 2021 \$ (000)										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	Zero-Based	39	39	39	0	0	0	39	39	39
Non-Labor	Zero-Based	1,919	1,919	1,919	0	0	0	1,919	1,919	1,919
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
Total		1,958	1,958	1,958	0	0	0	1,958	1,958	1,958
FTE	Zero-Based	0.4	0.4	0.4	0.0	0.0	0.0	0.4	0.4	0.4

Forecast Adjustment Details

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
2022 Total	0	0	0	0	0.0
2023 Total	0	0	0	0	0.0
2024 Total	0	0	0	0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00703.0
Category: C. Safety and Environmental
Category-Sub: 1. Safety and Environmental
Workpaper Group: 007030 - SAFETY/ENVIRONMENTAL

Determination of Adjusted-Recorded:

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	17	41	70	55	49
Non-Labor	1,544	703	2,706	2,891	3,653
NSE	0	0	0	0	0
Total	1,561	744	2,775	2,946	3,702
FTE	0.2	0.4	0.6	0.4	0.4
Adjustments (Nominal \$)**					
Labor	0	0	0	0	0
Non-Labor	0	0	0	1	0
NSE	0	0	0	0	0
Total	0	0	0	1	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	17	41	70	55	49
Non-Labor	1,544	703	2,706	2,892	3,653
NSE	0	0	0	0	0
Total	1,561	744	2,775	2,947	3,702
FTE	0.2	0.4	0.6	0.4	0.4
Vacation & Sick (Nominal \$)					
Labor	3	6	10	8	7
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	3	6	10	8	7
FTE	0.0	0.1	0.1	0.1	0.1
Escalation to 2021\$					
Labor	4	7	9	4	0
Non-Labor	339	112	312	196	0
NSE	0	0	0	0	0
Total	343	120	321	200	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2021\$)					
Labor	24	54	89	67	56
Non-Labor	1,883	815	3,017	3,088	3,653
NSE	0	0	0	0	0
Total	1,907	870	3,106	3,155	3,710
FTE	0.2	0.5	0.7	0.5	0.5

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00703.0
 Category: C. Safety and Environmental
 Category-Sub: 1. Safety and Environmental
 Workpaper Group: 007030 - SAFETY/ENVIRONMENTAL

Summary of Adjustments to Recorded:

		In Nominal \$(000)				
Years	2017	2018	2019	2020	2021	
Labor	0	0	0	0	0	
Non-Labor	0	0	0	1	0	
NSE	0	0	0	0	0	
Total	0	0	0	1	0	
FTE	0.0	0.0	0.0	0.0	0.0	

Detail of Adjustments to Recorded in Nominal \$:

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
2017 Total	0	0	0	0	0.0
2018 Total	0	0	0	0	0.0
2019 Total	0	0	0	0	0.0
2020	0	1	0	1	0.0
Explanation:	Transfer environmental services expenses that were incorrectly charged to Gas Engineering WP EN 9030 to Real Estate & Facilities WP 07030, where these expenses should have been charged.				
2020 Total	0	1	0	1	0.0
2021 Total	0	0	0	0	0.0

Note: Totals may include rounding differences.

**Beginning of Workpaper Sub Details for
Workpaper Group 007030**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00703.0
 Category: C. Safety and Environmental
 Category-Sub: 1. Safety and Environmental
 Workpaper Group: 007030 - SAFETY/ENVIRONMENTAL
 Workpaper Detail: 007030.001 - SAFETY & ENVIRONMENTAL BLANKET - NON SHARED SERVICE PROJECTS
 In-Service Date: Not Applicable

Description:

Safety and Environmental Blanket - Forecast based on 3 - Year Historical Average. Non Service Projects.

Forecast In 2021 \$(000)			
Years	2022	2023	2024
Labor	31	39	39
Non-Labor	1,497	1,919	1,919
NSE	0	0	0
Total	1,528	1,958	1,958
FTE	0.2	0.4	0.4

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
 2024 GRC - REVISED
 Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00703.0
 Category: C. Safety and Environmental
 Category-Sub: 1. Safety and Environmental
 Workpaper Group: 007030 - SAFETY/ENVIRONMENTAL
 Workpaper Detail: 007030.002 - SAFETY & ENVIRONMENTAL BLANKET - SHARED SERVICE PROJECTS
 In-Service Date: 04/30/2022

Description:

Safety and Environmental Blanket - Forecast based on 3 - Year Historical Average. Shared Service Projects.
 2022-000001 - CP Outdoor Meeting Areas

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		5	0	0
Non-Labor		245	0	0
NSE		0	0	0
	Total	250	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00703.0
 Category: C. Safety and Environmental
 Category-Sub: 1. Safety and Environmental
 Workpaper Group: 007030 - SAFETY/ENVIRONMENTAL
 Workpaper Detail: 007030.003 - SAFETY & ENVIRONMENTAL BLANKET - SHARED SERVICE PROJECTS
 In-Service Date: 06/30/2022

Description:

Safety and Environmental Blanket - Forecast based on 3 - Year Historical Average.
 2021-000188 Greencraig B Roof Drain & Trip Hazard Improvements

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		3	0	0
Non-Labor		177	0	0
NSE		0	0	0
	Total	180	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 007030

Budget Code Grouping	BC Name	Budget Code	BC Name	Fiscal year					Grand Total
				2017	2018	2019	2020	2021	
00703.0	SAFETY/ENVIRONMENTAL BLANKET	00703.0	SAFETY/ENVIRONMENTAL	1,907,033	396,870	1,880,179	1,419,749	2,573,270	8,177,101
00703.0	SAFETY/ENVIRONMENTAL	20796.0	CASPIAN STORMWATER IMPROVEMENTS		10,806	76,315	486,415	1,093,544	1,667,080
00703.0 Total				1,907,033	407,676	1,956,495	1,906,164	3,666,813	9,844,182

3 - Year Average (2019-2021)
1,957,733

3-year historical average calculated only on blanket projects included in the Budget Code 703 blanket. Projects with total budgets over \$1M and associated with a specific budget code are not included in 3-year average calculations.

GRC Budget Code	Project Budget Code	GRC Workpaper	Proj_ID	Project Name	2022	2023	2024	2021-2024 Total
703	703 Environmental/Safety Blanket		2021-000025	2021 Environmental / Safety Blanket	947,733	1,112,124	1,957,733	4,017,590
703	703 Environmental/Safety	007030.02	2022-000001	CP Outdoor Meeting Areas	250,000	-		250,000
703	703 Environmental/Safety	007030.03	2021-000188	Greencraig B Roof Drain & Trip Hazard Improvements	180,000	-		180,000
703	703 Environmental/Safety	007030.01	2018-000030	Caspian Stormwater Improvements	30,000	-		30,000
703	703 Environmental/Safety	007030.01	2021-000146	Miramar Bldg A Stair Improvements	187,000	-		187,000
703	703 Environmental/Safety	007030.01	2021-000220	Northcoast Bldg 2 Interior Refresh & Ergo Improvement	56,000	-		56,000
703	703 Environmental/Safety	007030.01	2020-000080	CP Pedestrian Safety Assessment	-	367,000		367,000
703	703 Environmental/Safety	007030.01	2019-000018	Mission Driveway Erosion Control	-	478,609		478,609
703	703 Environmental/Safety	007030.01	2021-000083	Eastern Branch Office AFN Upgrades	39,000			39,000
703	703 Environmental/Safety	007030.01	2021-000082	Chula Vista Branch Office AFN Upgrades	103,000			103,000
703	703 Environmental/Safety	007030.01	2021-000081	Market Creek Branch Office AFN Upgrades	84,000			84,000
703	703 Environmental/Safety	007030.01	2021-000080	Escondido Branch Office AFN Upgrades	81,000			81,000
703 Total					1,957,733	1,957,733	1,957,733	5,873,199

Beginning of Workpaper Group
00703A - Miramar Hazmat Site Storage Expansion

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00703.0
 Category: C. Safety and Environmental
 Category-Sub: 1. Safety and Environmental
 Workpaper Group: 00703A - Miramar Hazmat Site Storage Expansion

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	4	71	0
Non-Labor	Zero-Based	0	0	0	0	0	206	3,479	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	210	3,550	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.0

Business Purpose:

Additional, specialized enclosed storage area is needed by site operations for the safe keeping of hazardous and/or flammable substances.

Physical Description:

The scope of this project will include construction of a new, roughly 2,800 s.f. pre-engineered metal building on a concrete slab. The building will include 3 sections, each with individual entries and roll-up doors, 16' tall pallet racking, and fire sprinklers in each building section.

Project Justification:

The Hazardous Materials & Waste, Logistics and Gas Transmission Operations departments each require safe and separate areas to store hazardous materials used in connection with their work, while awaiting distribution to other operating groups or transport to disposal facilities, or stored for emergency availability purposes. Items to be stored include, but are not limited to, sanitizers, batteries, lamps, bulbs, ballasts, e-waste, sanitizers, citrus cleaner and gas cylinders.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00703.0
Category: C. Safety and Environmental
Category-Sub: 1. Safety and Environmental
Workpaper Group: 00703A - Miramar Hazmat Site Storage Expansion

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00703.0
 Category: C. Safety and Environmental
 Category-Sub: 1. Safety and Environmental
 Workpaper Group: 00703A - Miramar Hazmat Site Storage Expansion
 Workpaper Detail: 00703A.001 - 2020-000100 - Miramar Hazmat Site Storage Expansion
 In-Service Date: 06/30/2023
 Description:

Budget Code 703 - Zero Based Project Estimate

Forecast In 2021 \$(000)			
Years	2022	2023	2024
Labor	4	71	0
Non-Labor	206	3,479	0
NSE	0	0	0
Total	210	3,550	0
FTE	0.1	0.5	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00703A

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

2020-000100 Miramar Interior Site Storage Expansion
Pre-Authorized Scoping Estimate

Site Storage for Hazmat at Miramar	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
------------------------------------	-------------------------------	---------------------------------	----------

Architectural and Engineering			
Architectural Services	222,175	1.00	222,175
Geotechnical Engineering	10,066	1.00	10,066
Permitting/Planning/Inspections			
Plan Checks & Permits	25,000	1.00	25,000
Testing & Inspections	20,000	1.00	20,000
Construction			
Construction Services	2,552,884	1.10	2,808,173
Tenant Improvements			
Signage	6,000	1.00	6,000
IT, Audio Visual & Security			
Security & Surveillance (access control / Surveillance)	25,000	1.00	25,000
Subtotal			3,116,414
Contingency @ 10%			311,641
Construction Cost Totals			3,428,055
Company CPM Labor			37,111
Company Support Labor			22,581
Contracted Labor			272,253
PM, Labor Cost Totals			331,945

Project Total	3,760,000
----------------------	------------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
Company CPM Labor			
Program Management (<i>Company</i>)	85	65.21	5,543
Planning & Design Management (<i>Company</i>)	65	280.00	18,200
Project Analyst (<i>Company</i>)	75	65.21	4,891
Business Analyst (<i>Company</i>)	75	65.21	4,891
Facilities Specialist (<i>Company</i>)	55	65.21	3,587
Company Support Labor			
Facility Mgr. (<i>Company</i>)	65	193.00	12,545
Environmental Site Rep. (<i>Company</i>)	65	77.20	5,018
Safety Site Rep. (<i>Company</i>)	65	77.20	5,018
Contracted Labor			
Project Management (<i>Outside Labor</i>)			258,233
Project Coordination (<i>Outside Labor</i>)	75	130.42	9,782
Document Control (<i>Outside Labor</i>)	65	65.21	4,239
Subtotal			331,945

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Category: D. Miscellaneous Equipment
Workpaper: VARIOUS

Summary for Category: D. Miscellaneous Equipment

	In 2021\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Labor	93	68	34	34
Non-Labor	2,242	3,317	1,666	1,666
NSE	0	0	0	0
Total	2,335	3,385	1,700	1,700
FTE	0.7	0.9	0.2	0.2

007050 MISC EQUIPMENT BLANKET

Labor	93	34	34	34
Non-Labor	2,242	1,666	1,666	1,666
NSE	0	0	0	0
Total	2,335	1,700	1,700	1,700
FTE	0.7	0.6	0.2	0.2

00705A EV Charger Smart Meter Conversion

Labor	0	34	0	0
Non-Labor	0	1,651	0	0
NSE	0	0	0	0
Total	0	1,685	0	0
FTE	0.0	0.3	0.0	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
007050 - MISC EQUIPMENT BLANKET

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00705.0
 Category: D. Miscellaneous Equipment
 Category-Sub: 1. Miscellaneous Equipment
 Workpaper Group: 007050 - MISC EQUIPMENT BLANKET

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	15	33	50	30	93	34	34	34
Non-Labor	Zero-Based	1,200	881	1,303	2,022	2,242	1,666	1,666	1,666
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		1,216	914	1,353	2,052	2,335	1,700	1,700	1,700
FTE	Zero-Based	0.1	0.4	0.5	0.2	0.7	0.6	0.2	0.2

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. The blanket benefits numerous departments throughout the company by funding equipment purchases, both planned and unplanned due to breakdowns or changing business needs, which enable employees to work more efficiently and effectively. Included in this budget code are replacements of small equipment such as kitchen, audio visual, specialized mechanical equipment used in the fleet garages (reels, jacks or hoists), and lab equipment for sampling of soils and wastewater.

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), or lab equipment for sampling of soils and wastewater.

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 keeps 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.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00705.0
Category: D. Miscellaneous Equipment
Category-Sub: 1. Miscellaneous Equipment
Workpaper Group: 007050 - MISC EQUIPMENT BLANKET

Forecast Methodology:

Labor - Zero-Based

3 Year Average

Non-Labor - Zero-Based

3 Year Average

NSE - Zero-Based

N/A

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00705.0
 Category: D. Miscellaneous Equipment
 Category-Sub: 1. Miscellaneous Equipment
 Workpaper Group: 007050 - MISC EQUIPMENT BLANKET

Summary of Adjustments to Forecast

In 2021 \$ (000)										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	Zero-Based	34	34	34	0	0	0	34	34	34
Non-Labor	Zero-Based	1,666	1,666	1,666	0	0	0	1,666	1,666	1,666
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
Total		1,700	1,700	1,700	0	0	0	1,700	1,700	1,700
FTE	Zero-Based	0.6	0.2	0.2	0.0	0.0	0.0	0.6	0.2	0.2

Forecast Adjustment Details

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
2022 Total	0	0	0	0	0.0
2023 Total	0	0	0	0	0.0
2024 Total	0	0	0	0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00705.0
Category: D. Miscellaneous Equipment
Category-Sub: 1. Miscellaneous Equipment
Workpaper Group: 007050 - MISC EQUIPMENT BLANKET

Determination of Adjusted-Recorded:

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	11	25	39	24	65
Non-Labor	984	760	1,169	1,894	1,619
NSE	0	0	0	0	0
Total	995	784	1,208	1,918	1,685
FTE	0.1	0.3	0.4	0.2	0.5
Adjustments (Nominal \$)**					
Labor	0	0	0	0	16
Non-Labor	0	0	0	0	623
NSE	0	0	0	0	0
Total	0	0	0	0	639
FTE	0.0	0.0	0.0	0.0	0.1
Recorded-Adjusted (Nominal \$)					
Labor	11	25	39	24	81
Non-Labor	984	760	1,169	1,894	2,242
NSE	0	0	0	0	0
Total	995	784	1,208	1,918	2,323
FTE	0.1	0.3	0.4	0.2	0.6
Vacation & Sick (Nominal \$)					
Labor	2	4	6	3	12
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	2	4	6	3	12
FTE	0.0	0.1	0.1	0.0	0.1
Escalation to 2021\$					
Labor	3	5	5	2	0
Non-Labor	216	121	135	128	0
NSE	0	0	0	0	0
Total	219	126	140	130	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2021\$)					
Labor	15	33	50	30	93
Non-Labor	1,200	881	1,303	2,022	2,242
NSE	0	0	0	0	0
Total	1,216	914	1,353	2,052	2,335
FTE	0.1	0.4	0.5	0.2	0.7

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00705.0
 Category: D. Miscellaneous Equipment
 Category-Sub: 1. Miscellaneous Equipment
 Workpaper Group: 007050 - MISC EQUIPMENT BLANKET

Summary of Adjustments to Recorded:

In Nominal \$(000)					
Years	2017	2018	2019	2020	2021
Labor	0	0	0	0	16
Non-Labor	0	0	0	0	623
NSE	0	0	0	0	0
Total	0	0	0	0	639
FTE	0.0	0.0	0.0	0.0	0.1

Detail of Adjustments to Recorded in Nominal \$:

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
2017 Total	0	0	0	0	0.0
2018 Total	0	0	0	0	0.0
2019 Total	0	0	0	0	0.0
2020 Total	0	0	0	0	0.0
2021	16	623	0	639	0.1
Explanation: Transfer 21731 Employee EV Charger Conversion to BC 705.					
2021 Total	16	623	0	639	0.1

Note: Totals may include rounding differences.

**Beginning of Workpaper Sub Details for
Workpaper Group 007050**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00705.0
 Category: D. Miscellaneous Equipment
 Category-Sub: 1. Miscellaneous Equipment
 Workpaper Group: 007050 - MISC EQUIPMENT BLANKET
 Workpaper Detail: 007050.001 - Miscellaneous Equipment Blanket - Non Shared Service Projects
 In-Service Date: Not Applicable
 Description:

Forecast based on 3 - Year Average

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		27	34	34
Non-Labor		1,350	1,666	1,666
NSE		0	0	0
	Total	1,377	1,700	1,700
FTE		0.2	0.2	0.2

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00705.0
 Category: D. Miscellaneous Equipment
 Category-Sub: 1. Miscellaneous Equipment
 Workpaper Group: 007050 - MISC EQUIPMENT BLANKET
 Workpaper Detail: 007050.002 - Miscellaneous Equipment Blanket - Shared Service Projects
 In-Service Date: 03/31/2022

Description:

Miscellaneous Equipment Blanket - Shared Service Projects
 2021-000150 - CP6 Cafe Dishwasher Replacement

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		1	0	0
Non-Labor		27	0	0
NSE		0	0	0
	Total	28	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00705.0
 Category: D. Miscellaneous Equipment
 Category-Sub: 1. Miscellaneous Equipment
 Workpaper Group: 007050 - MISC EQUIPMENT BLANKET
 Workpaper Detail: 007050.003 - Miscellaneous Equipment Blanket - Shared Service Projects
 In-Service Date: 05/31/2022

Description:

Miscellaneous Equipment Blanket - Shared Service Projects
 2021-000015 Greencraig B Ice Machine Installation

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		2	0	0
Non-Labor		98	0	0
NSE		0	0	0
	Total	100	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00705.0
 Category: D. Miscellaneous Equipment
 Category-Sub: 1. Miscellaneous Equipment
 Workpaper Group: 007050 - MISC EQUIPMENT BLANKET
 Workpaper Detail: 007050.004 - Miscellaneous Equipment Blanket - Shared Service Projects
 In-Service Date: 04/30/2022

Description:

Miscellaneous Equipment Blanket - Shared Service Projects
 2021-000016 Greencraig B Potable Eye Wash Machine

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		2	0	0
Non-Labor		88	0	0
NSE		0	0	0
	Total	90	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00705.0
 Category: D. Miscellaneous Equipment
 Category-Sub: 1. Miscellaneous Equipment
 Workpaper Group: 007050 - MISC EQUIPMENT BLANKET
 Workpaper Detail: 007050.005 - Miscellaneous Equipment Blanket - Shared Service Projects
 In-Service Date: 04/30/2022

Description:

Miscellaneous Equipment Blanket - Shared Service Projects
 2021-000212 Northcoast Conference Room AV Improvements

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		2	0	0
Non-Labor		103	0	0
NSE		0	0	0
	Total	105	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 007050

San Diego Gas & Electric Company
 2024 GRC - REVISED
 Capital Workpapers

Budget Code Groupings	BC Name	Budget Code	BC Name	Fiscal year					3 - Year Average (2019-2021)	
				2017	2018	2019	2020	2021		Grand Total
00705.0	MISC EQUIPMENT BLANKET	00705.0	MISC EQUIPMENT BLANKET	1,215,647	913,917	1,353,019	2,051,537	1,894,427	7,228,545	1,699,661
00705.0	MISC EQUIPMENT	21731.0	EMPLOYEE EV CHARGER SMART METER CONVERSION					641,050	641,050	
00705.0 Total				1,215,647	913,917	1,353,019	2,051,537	2,335,476	7,869,595	

3-year historical average calculated only on blanket projects included in the Budget Code 705 blanket. Projects with total budgets over \$1M and associated with a specific budget code are not included in 3-year average calculations.

Budget Code	Project Budget Code	GRC Workpaper	Proj_ID	Project Name	2022	2023	2024	Total
705	Misc Equipment Blanket		2021-00026	2021 Misc. Equipment Blanket	638,661	1,560,661	1,699,661	3,898,983
705	Misc Equipment	007050.02	2021-000150	CP 6 Cafe Dishwasher Replacement	27,000	-	-	27,000
705	Misc Equipment	007050.03	2021-000015	Greencraig B Ice Machine Installation	100,000	-	-	100,000
705	Misc Equipment	007050.04	2021-000016	Greencraig B Potable Eye Wash Machine	90,000	-	-	90,000
705	Misc Equipment	007050.05	2021-000212	Northcoast Conference Rm AV Improvements	105,000	-	-	105,000
705	Misc Equipment	007050.01	2021-000017	Ruffin Court Ice Machine Installation	154,000	-	-	154,000
705	Misc Equipment	007050.01	2021-000227	2021 Fleet Garage Equipment	100,000	-	-	100,000
705	Misc Equipment	007050.01	2021-000238	2021/22 Environmental Lab Equipment	265,000	-	-	265,000
705	Misc Equipment	007050.01	2021-000170	Desert Star Conference Room AV Upgrades	163,000	-	-	163,000
705	Misc Equipment	007050.01	2021-000104	Mission Skills Air Compressor Replacement	47,000	-	-	47,000
705	Misc Equipment	007050.01	2021-000168	Ramona Bldg C Compressor Replacement	10,000	-	-	10,000
705	Misc Equipment	007050.01	2021-000234	Eastern Garage Air Compressor Replacement	-	139,000	-	139,000
					1,699,661	1,699,661	1,699,661	5,098,983

Beginning of Workpaper Group
00705A - EV Charger Smart Meter Conversion

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00705.0
 Category: D. Miscellaneous Equipment
 Category-Sub: 1. Miscellaneous Equipment
 Workpaper Group: 00705A - EV Charger Smart Meter Conversion

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	34	0	0
Non-Labor	Zero-Based	0	0	0	0	0	1,651	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	1,685	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

Business Purpose:

The accuracy and timeliness of 3rd party managed data collection and employee billing on Company electric vehicle charging stations has proven to be inadequate. This project will replace all existing 3rd party provided vehicle charging energy measurement devices with Company owned and operated smart meters. The entire inventory of existing charging units on SDG&E leased and owned properties, serving both employee and Fleet vehicles are in-scope for this project.

Physical Description:

Project scope includes site inventory, network analysis, and the installation and commissioning of Smart Meter based vehicle charge controllers. The installed infrastructure will include meter cabinets, wireless enabled smart meters, conduit and wiring required to bypass the existing legacy vehicle charge control hardware.

Project Justification:

The driver for the project is improving the nature and accuracy of data collection and employee billing processes from that which is provided through existing energy measurement devices. The replacement of the 3rd party infrastructure with a Company managed Smart Meter will provide enhanced data collection and more accurate and timely employee billing for vehicle charger usage. The project will also result in more timely trouble shooting and maintenance through the use of company resources.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00705.0
Category: D. Miscellaneous Equipment
Category-Sub: 1. Miscellaneous Equipment
Workpaper Group: 00705A - EV Charger Smart Meter Conversion

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
 2024 GRC - REVISED
 Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00705.0
 Category: D. Miscellaneous Equipment
 Category-Sub: 1. Miscellaneous Equipment
 Workpaper Group: 00705A - EV Charger Smart Meter Conversion
 Workpaper Detail: 00705A.001 - 2020-000127 - EV Charger Smart Meter Conversion
 In-Service Date: 05/31/2022

Description:

Budget Code 705 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		34	0	0
Non-Labor		1,651	0	0
NSE		0	0	0
	Total	<u>1,685</u>	<u>0</u>	<u>0</u>
FTE		0.3	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00705A

2020-000127 EV Chargers Smart Meter Conversion Authorized Project Budget

		CAPITAL	
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Permitting/Planning/Inspections			
Plan Checks & Permits	20,000	1.00	20,000
Construction			
Construction Services	1,812,250	1.00	1,812,250
Construction	166,579	1.00	166,579
Meters	12,800	1.00	12,800
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	5,000	1.00	5,000
Removal			
Demolition & Removals	10,000	1.00	10,000
Subtotal			2,026,629
Contingency @ 10%			202,663
Construction Cost Totals			2,229,292
Company CPM Labor			13,060
Company Support Labor			15,912
Contracted Labor			9,683
PM, Labor Cost Totals			38,655

Project Total	2,267,947
----------------------	------------------

		CAPITAL	
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	45.04	3,828
Project Analyst (Company)	75	45.04	3,378
Business Analyst (Company)	75	45.04	3,378
Facilities Specialist (Company)	55	45.04	2,477
Company Support Labor			
Facility Mgr. (Company)	65	136.00	8,840
Environmental Site Rep. (Company)	65	54.40	3,536
Safety Site Rep. (Company)	65	54.40	3,536
Contracted Labor			
Project Site Safety (Outside Labor)	75	90.07	6,755
Document Control (Outside Labor)	65	45.04	2,927
Subtotal			38,655

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Category: E. Security Systems
Workpaper: VARIOUS

Summary for Category: E. Security Systems

	In 2021\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Labor	56	122	70	54
Non-Labor	5,005	5,987	3,471	2,659
NSE	0	0	0	0
Total	5,061	6,109	3,541	2,713
FTE	0.7	1.2	0.7	0.6

007070 SECURITY SYSTEMS BLANKET

Labor	56	54	54	54
Non-Labor	5,005	2,659	2,659	2,659
NSE	0	0	0	0
Total	5,061	2,713	2,713	2,713
FTE	0.7	0.6	0.6	0.6

00707A Mountain Empire Site Security Improvements

Labor	0	6	16	0
Non-Labor	0	270	812	0
NSE	0	0	0	0
Total	0	276	828	0
FTE	0.0	0.1	0.1	0.0

00707B SDG&E Site Security Upgrades

Labor	0	34	0	0
Non-Labor	0	1,668	0	0
NSE	0	0	0	0
Total	0	1,702	0	0
FTE	0.0	0.3	0.0	0.0

00707C Ramona Substation Main Yard Improvements

Labor	0	28	0	0
Non-Labor	0	1,390	0	0
NSE	0	0	0	0
Total	0	1,418	0	0
FTE	0.0	0.2	0.0	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
007070 - SECURITY SYSTEMS BLANKET

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00707.0
 Category: E. Security Systems
 Category-Sub: 1. Security Systems
 Workpaper Group: 007070 - SECURITY SYSTEMS BLANKET

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
	Years								
Labor	Zero-Based	61	29	56	58	56	54	54	54
Non-Labor	Zero-Based	6,032	3,449	3,870	4,539	5,005	2,659	2,659	2,659
NSE	Zero-Based	0	0	0	0	0	0	0	0
	Total	6,094	3,478	3,926	4,597	5,061	2,713	2,713	2,713
FTE	Zero-Based	0.6	0.2	0.5	0.5	0.7	0.6	0.6	0.6

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. Scope of work may vary year to year, based on identification of risks, but all address the security of the company employees, operations, and assets. Common project types covered in this budget code are card readers, cameras, video recorders, physical barriers, and controlled automated gates and turnstiles.

Physical Description:

Common project types covered in this budget code are: card readers, cameras, video recorders, physical barriers and controlled automated gates and turnstiles; 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. Individual work orders and project plans are developed for execution of individual projects.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00707.0
Category: E. Security Systems
Category-Sub: 1. Security Systems
Workpaper Group: 007070 - SECURITY SYSTEMS BLANKET

Forecast Methodology:

Labor - Zero-Based

3 Year Average

Non-Labor - Zero-Based

3 Year Average

NSE - Zero-Based

N/A

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00707.0
 Category: E. Security Systems
 Category-Sub: 1. Security Systems
 Workpaper Group: 007070 - SECURITY SYSTEMS BLANKET

Summary of Adjustments to Forecast

In 2021 \$ (000)										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	Zero-Based	54	54	54	0	0	0	54	54	54
Non-Labor	Zero-Based	2,659	2,659	2,659	0	0	0	2,659	2,659	2,659
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
Total		2,713	2,713	2,713	0	0	0	2,713	2,713	2,713
FTE	Zero-Based	0.6	0.6	0.6	0.0	0.0	0.0	0.6	0.6	0.6

Forecast Adjustment Details

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
2022 Total	0	0	0	0	0.0
2023 Total	0	0	0	0	0.0
2024 Total	0	0	0	0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00707.0
Category: E. Security Systems
Category-Sub: 1. Security Systems
Workpaper Group: 007070 - SECURITY SYSTEMS BLANKET

Determination of Adjusted-Recorded:

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	44	22	44	47	47
Non-Labor	4,946	2,974	3,470	4,252	2,993
NSE	0	0	0	0	0
Total	4,990	2,996	3,514	4,299	3,041
FTE	0.5	0.2	0.4	0.4	0.4
Adjustments (Nominal \$)**					
Labor	0	0	0	0	1
Non-Labor	0	0	0	0	2,012
NSE	0	0	0	0	0
Total	0	0	0	0	2,013
FTE	0.0	0.0	0.0	0.0	0.2
Recorded-Adjusted (Nominal \$)					
Labor	44	22	44	47	48
Non-Labor	4,946	2,974	3,470	4,252	5,005
NSE	0	0	0	0	0
Total	4,990	2,996	3,514	4,299	5,053
FTE	0.5	0.2	0.4	0.4	0.6
Vacation & Sick (Nominal \$)					
Labor	7	3	6	7	7
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	7	3	6	7	7
FTE	0.1	0.0	0.1	0.1	0.1
Escalation to 2021\$					
Labor	11	4	6	4	0
Non-Labor	1,086	475	400	288	0
NSE	0	0	0	0	0
Total	1,097	479	406	291	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2021\$)					
Labor	61	29	56	58	56
Non-Labor	6,032	3,449	3,870	4,539	5,005
NSE	0	0	0	0	0
Total	6,094	3,478	3,926	4,597	5,061
FTE	0.6	0.2	0.5	0.5	0.7

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00707.0
 Category: E. Security Systems
 Category-Sub: 1. Security Systems
 Workpaper Group: 007070 - SECURITY SYSTEMS BLANKET

Summary of Adjustments to Recorded:

In Nominal \$(000)					
Years	2017	2018	2019	2020	2021
Labor	0	0	0	0	1
Non-Labor	0	0	0	0	2,012
NSE	0	0	0	0	0
Total	0	0	0	0	2,013
FTE	0.0	0.0	0.0	0.0	0.2

Detail of Adjustments to Recorded in Nominal \$:

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
2017 Total	0	0	0	0	0.0
2018 Total	0	0	0	0	0.0
2019 Total	0	0	0	0	0.0
2020 Total	0	0	0	0	0.0
2021	0.067	0	0	0.067	0.1
Explanation:	Transfer 21720 OCCO Eastern Perimeter Fence to BC 707.				
2021	1	2,012	0	2,013	0.1
Explanation:	Transfer BC 21747 Security Panel and NVR Upgrades to BC 707.				
2021 Total	1	2,012	0	2,013	0.2

Note: Totals may include rounding differences.

**Beginning of Workpaper Sub Details for
Workpaper Group 007070**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00707.0
 Category: E. Security Systems
 Category-Sub: 1. Security Systems
 Workpaper Group: 007070 - SECURITY SYSTEMS BLANKET
 Workpaper Detail: 007070.001 - Security Systems Blanket - Non Shared Service Projects
 In-Service Date: Not Applicable

Description:

Forecast based on 3 - year historical average.

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		46	54	54
Non-Labor		2,271	2,659	2,659
NSE		0	0	0
	Total	2,317	2,713	2,713
FTE		0.3	0.6	0.6

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00707.0
 Category: E. Security Systems
 Category-Sub: 1. Security Systems
 Workpaper Group: 007070 - SECURITY SYSTEMS BLANKET
 Workpaper Detail: 007070.002 - Security Systems Blanket - Shared Service Projects
 In-Service Date: 03/31/2022

Description:

Forecast based on 3 - year historical average. Shared Service Project
 2021-000153 - CP6 Security Camera Improvements

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		1	0	0
Non-Labor		42	0	0
NSE		0	0	0
	Total	43	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00707.0
 Category: E. Security Systems
 Category-Sub: 1. Security Systems
 Workpaper Group: 007070 - SECURITY SYSTEMS BLANKET
 Workpaper Detail: 007070.003 - Security Systems Blanket - Shared Service Projects
 In-Service Date: 04/30/2022

Description:

Forecast based on 3 - year historical average. Shared Service Project.

2021-000121 - RBDC Security Workstation Improvements

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		6	0	0
Non-Labor		285	0	0
NSE		0	0	0
	Total	291	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00707.0
 Category: E. Security Systems
 Category-Sub: 1. Security Systems
 Workpaper Group: 007070 - SECURITY SYSTEMS BLANKET
 Workpaper Detail: 007070.004 - Security Systems Blanket - Shared Service Projects
 In-Service Date: 06/30/2022

Description:

Forecast based on 3 - year historical average. Shared Service Project
 2021-000052 - Northcoast Northern Fence Replacement

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		1	0	0
Non-Labor		61	0	0
NSE		0	0	0
	Total	62	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 007070

Budget Code Grouping	BC Name	Budget Code	BC Name	Fiscal year					Grand Total
				2017	2018	2019	2020	2021	
00707.0	SECURITY SYSTEMS BLANKET	00707.0	SECURITY SYSTEMS BLANKET	1,947,668	3,230,223	3,073,477	2,262,743	2,803,515	13,317,625
00707.0	SECURITY SYSTEMS	16767.0	MISSION CONTROL BUILDING & SITE SECURITY	2,549,618	132				2,549,751
00707.0	SECURITY SYSTEMS	17775.0	NORTHEAST C&O SURVEILLANCE UPGRADE	1,596,381	247,854				1,844,235
00707.0	SECURITY SYSTEMS	20753.0	MIRAMAR SITE FENCE & SECURITY IMPROVEMEN				1,405,969	225,270	1,631,239
00707.0	SECURITY SYSTEMS	20757.0	NORTH EAST UPPER PARKING LOT FENCE IMPRO				845,828	17,175	863,003
00707.0	SECURITY SYSTEMS	20784.0	OCCO WESTERN PERIMETER FENCE IMPROVEMENT			852,371	82,683	1,706	936,760
00707.0	SECURITY SYSTEMS	21720.0	OCCO EASTERN PERIMETER FENCE IMPROVEMENT					77	77
00707.0	SECURITY SYSTEMS	21747.0	SECURITY PANEL AND NVR UPGRADES					2,012,822	2,012,822
00707.0 Total				6,093,667	3,478,209	3,925,848	4,597,223	5,060,564	23,155,511

3 - Year Average
 2,713,245

GRC Budget Code	Project Budget Code	GRC Workpaper	Proj_ID	Project Name	2022	2023	2024	2021-2024 Total
707	707 Security		2021-00027	2021 Security Improvements Blanket	1,980,245	1,941,245	2,713,245	6,634,735
707	707 Security	007070.02	2021-000153	CP 6 Security Camera Improvements	43,000	-	-	43,000
707	707 Security	007070.03	2021-000121	RBDC Security Workstation Improvements	291,000	-	-	291,000
707	707 Security	007070.04	2021-000052	Northcoast Northern Fence Replacement	62,000	-	-	62,000
707	707 Security	007070.01	2021-000042	Miramar Warehouse Security Improvements	121,000	-	-	121,000
707	707 Security	007070.01	2021-000136	Northeast Battery Yard Fencing Improvements	-	94,000	-	94,000
707	707 Security	007070.01	2020-000108	Ruffin Court Security Improvements	5,000	-	-	5,000
707	707 Security	007070.01	2019-000112	Northeast Upper Storage Lot Security Improvements	60,000	-	-	60,000
707	707 Security	007070.01	2018-000138	OCCO Eastern Fence Improvements	77,000	-	-	77,000
707	707 Security	007070.01	2021-000233	Palomar Security Camera Replacement	14,000	-	-	14,000
707	707 Security	007070.01	2019-000171	Northeast Upper Parking Lot Fence Improvements	45,000	-	-	45,000
707	707 Security	007070.01	2021-000173	Northeast Annex Storage Security Improvements	-	352,000	-	352,000
707	707 Security	007070.01	2021-000192	Northeast Exterior Fence Reinforcement	-	326,000	-	326,000
707	707 Security	007070.01	2021-000086	OCCO Tool Room Security Fencing	15,000	-	-	15,000
707 Blanket					2,713,245	2,713,245	2,713,245	8,139,735

Beginning of Workpaper Group
00707A - Mountain Empire Site Security Improvements

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00707.0
 Category: E. Security Systems
 Category-Sub: 1. Security Systems
 Workpaper Group: 00707A - Mountain Empire Site Security Improvements

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
	Years								
Labor	Zero-Based	0	0	0	0	0	6	16	0
Non-Labor	Zero-Based	0	0	0	0	0	270	812	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	276	828	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0

Business Purpose:

The current security systems at the Mountain Empire C&O Center have reached their end of life and no longer meet the security standards of SDG&E.

Physical Description:

The project scope will include new back-end infrastructure for card readers and cameras as well as new camera poles, cameras, card readers, and entrance gates (loop detectors, wrought iron, chain link fence, two gate motors) at the Mt. Empire site.

Project Justification:

The existing exterior security infrastructure is not up to current Corporate Security standards. This project will implement the required infrastructure improvements to improve the security posture of this critical facility, which operates on a 24/7 basis.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00707.0
Category: E. Security Systems
Category-Sub: 1. Security Systems
Workpaper Group: 00707A - Mountain Empire Site Security Improvements

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00707.0
 Category: E. Security Systems
 Category-Sub: 1. Security Systems
 Workpaper Group: 00707A - Mountain Empire Site Security Improvements
 Workpaper Detail: 00707A.001 - 2021-000189 - Mountain Empire Site Security Improvements
 In-Service Date: 04/30/2023

Description:

Budget Code 707 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		6	16	0
Non-Labor		270	812	0
NSE		0	0	0
	Total	<u>276</u>	<u>828</u>	<u>0</u>
FTE		0.1	0.1	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00707A

**2021-000189 Mt. Empire Site Security Improvements
Authorized Project Budget**

Item Description/ or Phase of Work	CAPITAL		
	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural Services	29,752	1.00	29,752
Electrical Engineering	10,000	1.00	10,000
Reprographics	500	1.00	500
Structural Engineering	10,000	1.00	10,000
Permitting/Planning/Inspections			
Plan Checks & Permits	5,000	1.00	5,000
Testing & Inspections	10,000	1.00	10,000
Construction			
Construction Services	403,225	1.00	403,225
Low Voltage Cabling	100,000	1.00	100,000
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	2,500	1.00	2,500
Soil Sampling/Analysis	5,000	1.00	5,000
Removal			
Contaminated Soil Removal	5,000	1.00	5,000
Real Estate & Planning			
Moving Costs	25,000	1.00	25,000
IT, Audio Visual & Security			
Security & Surveillance (access control / Surveillance)	375,000	1.00	375,000
Subtotal			980,977
Contingency @ 10%			98,098
Construction Cost Totals			1,079,075
Company CPM Labor			6,322
Company Support Labor			10,589
Contracted Labor			53,736
PM, Labor Cost Totals			70,646

Project Total	1,149,721
----------------------	------------------

Item Description/ or Phase of Work	CAPITAL		
	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	21.80	1,853
Project Analyst (Company)	75	21.80	1,635
Business Analyst (Company)	75	21.80	1,635
Facilities Specialist (Company)	55	21.80	1,199
Company Support Labor			
Facility Mgr. (Company)	65	90.50	5,883
Environmental Site Rep. (Company)	65	36.20	2,353
Safety Site Rep. (Company)	65	36.20	2,353
Contracted Labor			
Project Management (Outside Labor)			49,049
Project Site Safety (Outside Labor)	75	43.60	3,270
Document Control (Outside Labor)	65	21.80	1,417
Subtotal			70,646

Beginning of Workpaper Group
00707B - SDG&E Site Security Upgrades

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00707.0
 Category: E. Security Systems
 Category-Sub: 1. Security Systems
 Workpaper Group: 00707B - SDG&E Site Security Upgrades

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	34	0	0
Non-Labor	Zero-Based	0	0	0	0	0	1,668	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	1,702	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

Business Purpose:

This project will replace the security equipment which controls the card readers and cameras across the SDG&E portfolio, bringing these systems to current Corporate Security and Cybersecurity standards. The current Network Video Recorders (NVR) have a documented cyber security vulnerability which will be remedied by this project.

Physical Description:

This project will engage a security contractor to replace a total of 91 iStar Pro panels and 48 NVR's with the latest generation equipment.

Project Justification:

The replacement access control panels and NVRs will switch to Linux based operating systems, which is preferred over Windows by IT Cybersecurity due to increased protection from external hacking. Both items will feature increased processing speed and memory typically expected with technology upgrades. The existing access control panel model is no longer being produced and replacement parts are thus more difficult to acquire. Additionally, the replacement iStar panels will have enhanced encryption capabilities not available in the existing panels. The replacement NVR's will have drivers compatible with the new company standard for digital cameras, provide more storage capacity, and offer video analytics to provide automated alarms to the CSOC.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00707.0
Category: E. Security Systems
Category-Sub: 1. Security Systems
Workpaper Group: 00707B - SDG&E Site Security Upgrades

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00707.0
 Category: E. Security Systems
 Category-Sub: 1. Security Systems
 Workpaper Group: 00707B - SDG&E Site Security Upgrades
 Workpaper Detail: 00707B.001 - 2021-000037 - SDG&E Site Security Upgrades
 In-Service Date: 07/31/2022

Description:

Budget Code 707 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		34	0	0
Non-Labor		1,668	0	0
NSE		0	0	0
	Total	<u>1,702</u>	<u>0</u>	<u>0</u>
FTE		0.3	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00707B

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

**2021-000037 Security Panel and NVR Upgrades
Authorized Project Budget**

Item Description/ or Phase of Work	CAPITAL		
	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Construction			
Construction Services	25,000	1.00	25,000
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	5,000	1.00	5,000
Removal			
Asbestos and Lead Abatement	2,000	1.00	2,000
IT, Audio Visual & Security			
Security & Surveillance (access control / Surveillance)	3,309,072	1.00	3,309,072
Subtotal			3,341,072
Contingency @ 20%			668,214
Construction Cost Totals			4,009,286
Company CPM Labor			21,531
Company Support Labor			61,799
Contracted Labor			89,312
PM, Labor Cost Totals			172,642

Project Total	4,181,928
----------------------	------------------

Item Description/ or Phase of Work	CAPITAL		
	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	74.25	6,311
Project Analyst (Company)	75	74.25	5,568
Business Analyst (Company)	75	74.25	5,568
Facilities Specialist (Company)	55	74.25	4,084
Company Support Labor			
Facility Mgr. (Company)	65	83.75	5,444
Environmental Site Rep. (Company)	65	67.00	4,355
Security Site Rep. (Company)	65	800.00	52,000
Contracted Labor			
Project Management (Outside Labor)			87,703
Document Control (Outside Labor)	65	24.75	1,609
Subtotal			172,642

Beginning of Workpaper Group
00707C - Ramona Substation Main Yard Improvements

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00707.0
 Category: E. Security Systems
 Category-Sub: 1. Security Systems
 Workpaper Group: 00707C - Ramona Substation Main Yard Improvements

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	28	0	0
Non-Labor	Zero-Based	0	0	0	0	0	1,390	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	1,418	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

Business Purpose:

The Ramona C&O Center needs to increase materials storage capacity and has identified usable space adjacent to the Ramona Substation. This project will increase the security capabilities as well as perform other site improvements which will facilitate the storage of materials on site.

Physical Description:

This project will replace the existing 5ft high fencing with an 8ft tall fence and security gate with privacy slats to match sub-station fencing per SDG&E standard. Project will also include the construction of a new driveway apron, paving of the 50' long driveway entrance and the addition of gravel bedding in the main substation yard to enhance the existing storage capabilities of the area.

Project Justification:

Completion of the project will allow for increased storage capacity of materials and equipment to necessary to sustain the operations at the Ramona C&O Center, particularly pertaining to emergency response and wildfire mitigation activities. The project will also allow for the creation of storage swing space necessary to implement other capital projects on the main Ramona C&O property.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00707.0
Category: E. Security Systems
Category-Sub: 1. Security Systems
Workpaper Group: 00707C - Ramona Substation Main Yard Improvements

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00707.0
 Category: E. Security Systems
 Category-Sub: 1. Security Systems
 Workpaper Group: 00707C - Ramona Substation Main Yard Improvements
 Workpaper Detail: 00707C.001 - 2019-000173 - Ramona Substation Main Yard Improvements
 In-Service Date: 07/31/2022
 Description:

Budget Code 707 - Zero Based Project Estimate

Forecast In 2021 \$(000)			
Years	2022	2023	2024
Labor	28	0	0
Non-Labor	1,390	0	0
NSE	0	0	0
Total	1,418	0	0
FTE	0.2	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00707C

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

2019-000173 Ramona Substation Main Yard Improvements
Pre-Authorization Scoping Estimate

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
---------------------------------------	-------------------------------	---------------------------------	----------

Architectural and Engineering			
Architectural and Engineering	96,526	1.00	96,526
Reprographics	500	1.00	500
Permitting/Planning/Inspections			
Plan Checks & Permits	20,000	1.00	20,000
Testing & Inspections	15,000	1.00	15,000
Construction			
Construction Services	1,148,513	1.00	1,148,513
Environmental & Safety Services			
Soil Sampling/Analysis	5,000	1.00	5,000
Mitigation Monitoring	3,000	1.00	3,000
Removal			
Asbestos and Lead Abatement	5,000	1.00	5,000
Contaminated Soil Removal	20,000	1.00	20,000
Real Estate & Planning			
Moving Costs	10,000	1.00	10,000
Signage (Exterior)	10,000	1.00	10,000
Subtotal			1,333,539
Contingency @ 10%			133,354
Construction Cost Totals			1,466,893
Company CPM Labor			8,398
Company Support Labor			28,197
Contracted Labor			68,124
PM, Labor Cost Totals			104,718

Project Total	1,571,611
----------------------	------------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
---------------------------------------	-------------------------------	------------------------------	----------

Company CPM Labor			
Program Management (Company)	85	28.96	2,461
Project Analyst (Company)	75	28.96	2,172
Business Analyst (Company)	75	28.96	2,172
Facilities Specialist (Company)	55	28.96	1,593
Company Support Labor			
Facility Mgr. (Company)	65	241.00	15,665
Environmental Site Rep. (Company)	65	96.40	6,266
Safety Site Rep. (Company)	65	96.40	6,266
Contracted Labor			
Project Management (Outside Labor)			61,898
Project Coordination (Outside Labor)	75	57.92	4,344
Document Control (Outside Labor)	65	28.96	1,882
Subtotal			104,718

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Category: F. Infrastructure and Reliability
Workpaper: VARIOUS

Summary for Category: F. Infrastructure and Reliability

	In 2021\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Labor	215	161	132	114
Non-Labor	12,092	7,938	6,461	5,573
NSE	0	0	0	0
Total	12,307	8,099	6,593	5,687
FTE	1.7	1.6	1.0	0.9

007080 COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB

Labor	215	114	114	114
Non-Labor	12,092	5,573	5,573	5,573
NSE	0	0	0	0
Total	12,307	5,687	5,687	5,687
FTE	1.7	1.2	0.9	0.9

00708A Ramona Generator Installation

Labor	0	25	0	0
Non-Labor	0	1,241	0	0
NSE	0	0	0	0
Total	0	1,266	0	0
FTE	0.0	0.2	0.0	0.0

00708B RBDC Generator 6 Installation

Labor	0	4	18	0
Non-Labor	0	196	888	0
NSE	0	0	0	0
Total	0	200	906	0
FTE	0.0	0.1	0.1	0.0

00708C RBDC Pre-Action Zone Pipe Repair

Labor	0	18	0	0
Non-Labor	0	928	0	0
NSE	0	0	0	0
Total	0	946	0	0
FTE	0.0	0.1	0.0	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
007080 - COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 007080 - COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	65	69	107	170	215	114	114	114
Non-Labor	Zero-Based	9,134	3,781	5,733	12,709	12,092	5,573	5,573	5,573
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		9,199	3,850	5,840	12,879	12,307	5,687	5,687	5,687
FTE	Zero-Based	0.6	0.6	0.7	1.2	1.7	1.2	0.9	0.9

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 \$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. Common project types covered in this budget code are: Chillers, Boilers, Air Handlers, HVAC Replacements, Generators, UPS systems, Electrical Distribution Systems and Computer Room Infrastructure. Scope 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:

Common project types covered in this budget code are: Chillers, Boilers, Air Handlers, HVAC Replacements, Generators, UPS systems, Electrical Distribution Systems and Computer Room Infrastructure.

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.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00708.0
Category: F. Infrastructure and Reliability
Category-Sub: 1. Infrastructure and Reliability
Workpaper Group: 007080 - COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB

Forecast Methodology:

Labor - Zero-Based

3-Year Average

Non-Labor - Zero-Based

3-Year Average

NSE - Zero-Based

N/A

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 007080 - COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB

Summary of Adjustments to Forecast

In 2021 \$ (000)										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	Zero-Based	114	114	114	0	0	0	114	114	114
Non-Labor	Zero-Based	5,573	5,573	5,573	0	0	0	5,573	5,573	5,573
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
Total		5,687	5,687	5,687	0	0	0	5,687	5,687	5,687
FTE	Zero-Based	1.2	0.9	0.9	0.0	0.0	0.0	1.2	0.9	0.9

Forecast Adjustment Details

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
2022 Total	0	0	0	0	0.0
2023 Total	0	0	0	0	0.0
2024 Total	0	0	0	0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00708.0
Category: F. Infrastructure and Reliability
Category-Sub: 1. Infrastructure and Reliability
Workpaper Group: 007080 - COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB

Determination of Adjusted-Recorded:

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	46	52	84	140	184
Non-Labor	7,490	3,260	5,141	11,903	10,670
NSE	0	0	0	0	0
Total	7,537	3,312	5,225	12,043	10,854
FTE	0.5	0.5	0.6	1.0	1.3
Adjustments (Nominal \$)**					
Labor	0	0	0	0	3
Non-Labor	0	0	0	0	1,422
NSE	0	0	0	0	0
Total	0	0	0	0	1,425
FTE	0.0	0.0	0.0	0.0	0.2
Recorded-Adjusted (Nominal \$)					
Labor	46	52	84	140	187
Non-Labor	7,490	3,260	5,141	11,903	12,092
NSE	0	0	0	0	0
Total	7,537	3,312	5,225	12,043	12,279
FTE	0.5	0.5	0.6	1.0	1.5
Vacation & Sick (Nominal \$)					
Labor	7	8	12	20	28
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	7	8	12	20	28
FTE	0.1	0.1	0.1	0.2	0.2
Escalation to 2021\$					
Labor	12	10	11	11	0
Non-Labor	1,644	521	592	806	0
NSE	0	0	0	0	0
Total	1,656	530	603	817	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2021\$)					
Labor	65	69	107	170	215
Non-Labor	9,134	3,781	5,733	12,709	12,092
NSE	0	0	0	0	0
Total	9,199	3,850	5,840	12,879	12,307
FTE	0.6	0.6	0.7	1.2	1.7

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 007080 - COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB

Summary of Adjustments to Recorded:

In Nominal \$(000)					
Years	2017	2018	2019	2020	2021
Labor	0	0	0	0	3
Non-Labor	0	0	0	0	1,422
NSE	0	0	0	0	0
Total	0	0	0	0	1,425
FTE	0.0	0.0	0.0	0.0	0.2

Detail of Adjustments to Recorded in Nominal \$:

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
2017 Total	0	0	0	0	0.0
2018 Total	0	0	0	0	0.0
2019 Total	0	0	0	0	0.0
2020 Total	0	0	0	0	0.0
2021	2	264	0	266	0.1
Explanation:	Transfer BC 21755 Ramona Generator Replacement to BC 708				
2021	0.877	1,158	0	1,158	0.1
Explanation:	Transfer BC 21760 RBDC Generator 6 Installation to BC 708				
2021 Total	3	1,422	0	1,425	0.2

Note: Totals may include rounding differences.

**Beginning of Workpaper Sub Details for
Workpaper Group 007080**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 007080 - COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB
 Workpaper Detail: 007080.001 - Infrastructure and Reliability Blanket - Non Shared Service Projects
 In-Service Date: Not Applicable
 Description:

Forecast based on 3 - year average historical costs. Non Shared Service Projects
--

Forecast In 2021 \$(000)			
Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor	84	114	114
Non-Labor	4,128	5,573	5,573
NSE	0	0	0
Total	<u>4,212</u>	<u>5,687</u>	<u>5,687</u>
FTE	0.5	0.9	0.9

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 007080 - COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB
 Workpaper Detail: 007080.002 - Infrastructure and Reliability Blanket - Shared Service Projects
 In-Service Date: 04/30/2022

Description:

Forecast based on 3 - year historical average Shared Service Project
 2021-000162 - Beach Cities C&O BMS Improvements

Forecast In 2021 \$(000)					
	Years	2022	2023	2024	
Labor		1	0	0	
Non-Labor		71	0	0	
NSE		0	0	0	
	Total	72	0	0	
FTE		0.1	0.0	0.0	

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 007080 - COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB
 Workpaper Detail: 007080.003 - Infrastructure and Reliability Blanket - Shared Service Projects
 In-Service Date: 05/31/2022

Description:

Forecast based on 3 - year historical average Shared service project
 2021-000157 - Eastern Bldg 1 HVAC Improvements

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		1	0	0
Non-Labor		25	0	0
NSE		0	0	0
	Total	26	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 007080 - COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB
 Workpaper Detail: 007080.004 - Infrastructure and Reliability Blanket - Shared Service Projects
 In-Service Date: 07/31/2022

Description:

Forecast based on 3 - year historical average Shared Service Project
 2021-000161 - Eastern C&O BMS Improvements

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		5	0	0
Non-Labor		233	0	0
NSE		0	0	0
	Total	238	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 007080 - COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB
 Workpaper Detail: 007080.005 - Infrastructure and Reliability Blanket - Shared Service Projects
 In-Service Date: 04/30/2022

Description:

Forecast based on 3 - year historical average Miscellaneous Equipment Blanket - Shared Service Project
 2020-000087 - Greencraig B PET Lab HVAC

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		4	0	0
Non-Labor		207	0	0
NSE		0	0	0
	Total	211	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 007080 - COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB
 Workpaper Detail: 007080.006 - Infrastructure and Reliability Blanket - Shared Service Projects
 In-Service Date: 05/31/2022

Description:

Miscellaneous Equipment Blanket - Shared Service Project
 2021-000224 - RBDC AHU Replacement

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		12	0	0
Non-Labor		564	0	0
NSE		0	0	0
	Total	<u>576</u>	<u>0</u>	<u>0</u>
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
 2024 GRC - REVISED
 Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 007080 - COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB
 Workpaper Detail: 007080.007 - Infrastructure and Reliability Blanket - Shared Service Projects
 In-Service Date: 04/30/2022

Description:

Miscellaneous Equipment Blanket - Shared Service Project 2021-000143 - RBDC BMS Upgrade

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		2	0	0
Non-Labor		80	0	0
NSE		0	0	0
	Total	82	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
 2024 GRC - REVISED
 Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 007080 - COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB
 Workpaper Detail: 007080.008 - Infrastructure and Reliability Blanket - Shared Service Projects
 In-Service Date: 04/30/2022

Description:

Miscellaneous Equipment Blanket - Shared Service Project 2021-000106 RBDC CRAH Unit Installation

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		5	0	0
Non-Labor		265	0	0
NSE		0	0	0
	Total	270	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 007080

Budget Code Grouping	BC Name	Budget Code	BC Name	Fiscal year					Grand Total	3 - Year Average (2019-2021)
				2017	2018	2019	2020	2021		
00708.0	COMM. PLANT BLKT-INFRASTRUCTURE & RELIABILITY - BLANKET	00708.0	COMM. PLANT BLKT-INFRASTRUCTURE & RELIAB	3,900,660	1,425,344	4,662,269	5,246,300	7,150,356	22,384,929	5,686,308
00708.0	COMM. PLANT BLKT-INFRASTRUCTURE & RELIABILITY	14758.0	RBDC SERVER RM #1 CRAC UNIT REPLACEMENT	1,989,460	(215,849)				1,773,611	
00708.0	COMM. PLANT BLKT-INFRASTRUCTURE & RELIABILITY	16771.0	RBDC POWER RELIABILITY IMPROVEMENTS	3,308,238	2,640,922	(463,455)			5,485,705	
00708.0	COMM. PLANT BLKT-INFRASTRUCTURE & RELIABILITY	19784.0	RBDC CHILLER REPLACEMENT			1,499,639	487,907	1,025	1,988,570	
00708.0	COMM. PLANT BLKT-INFRASTRUCTURE & RELIABILITY	20756.0	RBDC C&D UPS EXPANSION			141,805	3,337,886	3,009,337	6,489,028	
00708.0	COMM. PLANT BLKT-INFRASTRUCTURE & RELIABILITY	20794.0	RBDC CHILLER REPLACEMENT # PH2				1,887,397	10,764	1,898,160	
00708.0	COMM. PLANT BLKT-INFRASTRUCTURE & RELIABILITY	20799.0	OCCO GARAGE/WAREHOUSE GENERATOR REPL				874,628	710,146	1,584,774	
00708.0	COMM. PLANT BLKT-INFRASTRUCTURE & RELIABILITY	21755.0	RAMONA GENERATOR REPLACEMENT					266,818	266,818	
00708.0	COMM. PLANT BLKT-INFRASTRUCTURE & RELIABILITY	21760.0	RBDC GENERATOR 6 INSTALLATION					1,159,596	1,159,596	
00708.0 Total				9,199,367	3,850,417	5,840,259	11,834,118	12,307,042	43,031,203	

3-year historical average calculated only on blanket projects included in the Budget Code 708 blanket. Projects with total budgets over \$1M and associated with a specific budget code are not included in 3-year average calculations.

Budget Code	Project Budget Code	GRC Workpaper	Proj_ID	Project Name	2022	2023	2024	2021-2024 Total
708	708 Infrastructure/Reliability Blanket		2021-000028	2021 Infrastructure / Reliability Blanket	1,454,808	3,057,308	5,686,308	10,198,424
708	708 Infrastructure/Reliability	007080.02	2021-000162	Beach Cities C&O BMS Improvements	72,000	-	-	72,000
708	708 Infrastructure/Reliability	007080.03	2021-000157	Eastern Bldg 1 HVAC Improvements	25,000	-	-	25,000
708	708 Infrastructure/Reliability	007080.04	2021-000161	Eastern C&O BMS Improvements	238,000	-	-	238,000
708	708 Infrastructure/Reliability	007080.05	2020-000087	Greencraig B PET Lab HVAC	211,000	-	-	211,000
708	708 Infrastructure/Reliability	007080.06	2021-000224	RBDC AHU Replacement	575,000	-	-	575,000
708	708 Infrastructure/Reliability	007080.07	2021-000143	RBDC BMS Upgrade	82,000	-	-	82,000
708	708 Infrastructure/Reliability	007080.08	2021-000106	RBDC CRAH Unit Installation	271,000	-	-	271,000
708	708 Infrastructure/Reliability	007080.01	2021-000175	Greencraig A HVAC Improvements	-	189,000	-	189,000
708	708 Infrastructure/Reliability	007080.01	2021-000163	Kearny C&O BMS Improvements	103,000	-	-	103,000
708	708 Infrastructure/Reliability	007080.01	2021-000200	Desert Star BMS Installation	415,000	-	-	415,000
708	708 Infrastructure/Reliability	007080.01	2021-000199	Desert Star HVAC Replacement	215,000	-	-	215,000
708	708 Infrastructure/Reliability	007080.01	2021-000002	Kearny Maintenance Shop Conditioned Air	-	485,000	-	485,000
708	708 Infrastructure/Reliability	007080.01	2021-000201	Kearny Site HVAC Replacement	36,000	-	-	36,000
708	708 Infrastructure/Reliability	007080.01	2021-000093	Metro BMS Replacement	149,000	-	-	149,000
708	708 Infrastructure/Reliability	007080.01	2021-000203	Metro HVAC Replacement	7,500	-	-	7,500
708	708 Infrastructure/Reliability	007080.01	2021-000092	Metro UPS Equipment Repairs	75,000	-	-	75,000
708	708 Infrastructure/Reliability	007080.01	2021-000217	Miramar BMS Improvements	223,000	-	-	223,000
708	708 Infrastructure/Reliability	007080.01	2021-000185	Miramar MDF Rm HVAC Improvements	34,000	-	-	34,000
708	708 Infrastructure/Reliability	007080.01	2021-000147	Miramar Quest Garage Ventilation Improvements	-	200,000	-	200,000
708	708 Infrastructure/Reliability	007080.01	2015-000131	Mission Control BMS Improvements	186,000	-	-	186,000
708	708 Infrastructure/Reliability	007080.01	2021-000091	Mission Skills Training BMS Improvements	156,000	-	-	156,000
708	708 Infrastructure/Reliability	007080.01	2021-000036	Mission Telecom MDF Rm HVAC Replacement	247,000	-	-	247,000
708	708 Infrastructure/Reliability	007080.01	2021-000142	Moreno Admin Bldg BMS Installation	95,000	-	-	95,000
708	708 Infrastructure/Reliability	007080.01	2021-000207	Mountain Empire BMS Improvements	-	333,000	-	333,000
708	708 Infrastructure/Reliability	007080.01	2021-000105	Mountain Empire Fire Alarm	340,000	-	-	340,000
708	708 Infrastructure/Reliability	007080.01	2021-000077	MT Woodson Generator Replacement & Pad Repair	303,000	-	-	303,000
708	708 Infrastructure/Reliability	007080.01	2021-000160	Northeast C&O BMS Improvements	-	225,000	-	225,000
708	708 Infrastructure/Reliability	007080.01	2021-000056	North Peak Telecom Propane Tank Replacement	10,000	-	-	10,000
708	708 Infrastructure/Reliability	007080.01	2021-000135	OCCO Admin Bldg 2 Electrical Upgrades	124,000	-	-	124,000
708	708 Infrastructure/Reliability	007080.01	2021-000229	Ramona BMS Improvements	-	203,000	-	203,000
708	708 Infrastructure/Reliability	007080.01	2021-000172	Alpine Way BMS Improvements	-	205,000	-	205,000
708	708 Infrastructure/Reliability	007080.01	2021-000183	Eastern District Office HVAC Replacement	-	379,000	-	379,000
708	708 Infrastructure/Reliability	007080.01	2021-000237	Eastern Generator Replacement	-	410,000	-	410,000
708	708 Infrastructure/Reliability	007080.01	2020-000039	Northeast PM Bldg Generator Replacement	20,000	-	-	20,000
708	708 Infrastructure/Reliability	007080.01	2019-000114	OCCO OGW Combo Generator Replacement	10,000	-	-	10,000
708	708 Infrastructure/Reliability	007080.01	2021-000193	Gillespie HVAC Replacement	9,000	-	-	9,000
708 Blanket Total					5,686,308	5,686,308	5,686,308	17,058,924

Beginning of Workpaper Group
00708A - Ramona Generator Installation

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 00708A - Ramona Generator Installation

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	25	0	0
Non-Labor	Zero-Based	0	0	0	0	0	1,241	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	1,266	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

Business Purpose:

The existing standby power generator is portable unit with temporary, exposed connections to the building electrical system. This project will replace the temporary portable standby generator with a permanent, pad mounted 200kW generator

Physical Description:

The project scope will include the purchase and installation of a 200kW generator on a concrete foundation, CMU protective walls, trenching and conduit runs to site electrical meter locations, site lighting and integration with existing BMS system.

Project Justification:

The existing backup generator is a portable unit with a temporary connection to the building electrical system. Because the unit is portable there are exposed wires which could lead to potential safety or reliability issues.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00708.0
Category: F. Infrastructure and Reliability
Category-Sub: 1. Infrastructure and Reliability
Workpaper Group: 00708A - Ramona Generator Installation

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 00708A - Ramona Generator Installation
 Workpaper Detail: 00708A.001 - 2015-000113 - Ramona Generator Installation
 In-Service Date: 05/31/2022

Description:

Budget Code 708 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		25	0	0
Non-Labor		1,241	0	0
NSE		0	0	0
	Total	<u>1,266</u>	<u>0</u>	<u>0</u>
FTE		0.2	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00708A

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

**2015-000113 Ramona Generator Replacement
Authorized Project Budget**

Item Description/ or Phase of Work	CAPITAL		
	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	107,300	1.00	107,300
Civil Engineering	5,000	1.00	5,000
Geotechnical Engineering	10,000	1.00	10,000
Reprographics	500	1.00	500
Permitting/Planning/Inspections			
Plan Checks & Permits	10,000	1.00	10,000
Testing & Inspections	20,000	1.00	20,000
Construction			
Construction Services	995,831	1.00	995,831
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	2,500	1.00	2,500
Soil Sampling/Analysis	5,000	1.00	5,000
Safety	10,000	1.00	10,000
Mitigation Monitoring	3,000	1.00	3,000
Removal			
Asbestos and Lead Abatement	5,000	1.00	5,000
Contaminated Soil Removal	5,000	1.00	5,000
Real Estate & Planning			
Moving Costs	10,000	1.00	10,000
Signage (Exterior)	3,000	1.00	3,000
Subtotal			1,192,131
Contingency @ 20%			238,426
Construction Cost Totals			1,430,557
Company CPM Labor			7,683
Company Support Labor			16,965
Contracted Labor			62,322
PM, Labor Cost Totals			86,970

Project Total	1,517,527
----------------------	------------------

Item Description/ or Phase of Work	CAPITAL		
	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	26.49	2,252
Project Analyst (Company)	75	26.49	1,987
Business Analyst (Company)	75	26.49	1,987
Facilities Specialist (Company)	55	26.49	1,457
Company Support Labor			
Facility Mgr. (Company)	65	145.00	9,425
Environmental Site Rep. (Company)	65	58.00	3,770
Safety Site Rep. (Company)	65	58.00	3,770
Contracted Labor			
Project Management (Outside Labor)			56,626
Project Coordination (Outside Labor)	75	52.98	3,974
Document Control (Outside Labor)	65	26.49	1,722
Subtotal			86,970

Beginning of Workpaper Group
00708B - RBDC Generator 6 Installation

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 00708B - RBDC Generator 6 Installation

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Labor	Zero-Based	0	0	0	0	0	4	18	0
Non-Labor	Zero-Based	0	0	0	0	0	196	888	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	200	906	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0

Business Purpose:

This project will seek to increase electrical power redundancy and resiliency at the Rancho Bernardo Data Center by installing a new generator. Increases in critical electrical load within server room #1 and server room #2 necessitated the installation of new UPS C&D at RBDC. The existing twin 2.25 MW generators now each serve the old and the new UPS, but currently do not have redundancy.

Physical Description:

The project scope will include the installation of a new 2,250kW standby diesel generator with 277/480V power output, a sub-base diesel fuel tank, fuel polishing system and integration with existing paralleling gear.

Project Justification:

When completed, the new generator plant will provide a total of 4MW in parallel operation, along with a backup generator to maintain readiness in the event of major maintenance or loss of one the existing primary generators, representing N+1 generator redundancy at this mission critical facility.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00708.0
Category: F. Infrastructure and Reliability
Category-Sub: 1. Infrastructure and Reliability
Workpaper Group: 00708B - RBDC Generator 6 Installation

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
 2024 GRC - REVISED
 Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 00708B - RBDC Generator 6 Installation
 Workpaper Detail: 00708B.001 - 2021-000114 - RBDC Generator 6 Installation
 In-Service Date: 07/31/2023

Description:

Budget Code 708 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		4	18	0
Non-Labor		196	888	0
NSE		0	0	0
	Total	200	906	0
FTE		0.1	0.1	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00708B

**2021-000114 RBDC Generator #6
Final Authorized Budget**

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
---------------------------------------	-------------------------------	---------------------------------	----------

Architectural and Engineering			
Architectural Services	101,000	1.00	101,000
Reprographics	500	1.00	500
Plan Checks & Permits	16,000	1.00	16,000
Construction			
Construction Services - Procurement	1,323,000	1.10	1,455,300
Subtotal			1,572,800
Contingency @ 5%			78,640
Construction Cost Totals			1,651,440
Company CPM Labor			10,136
Company Support Labor			7,079
Contracted Labor			125,474
PM, Labor Cost Totals			142,689

Project Total	1,794,129
----------------------	------------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
---------------------------------------	-------------------------------	------------------------------	----------

Company CPM Labor			
Program Management (<i>Company</i>)	85	34.95	2,971
Project Analyst (<i>Company</i>)	75	34.95	2,621
Business Analyst (<i>Company</i>)	75	34.95	2,621
Facilities Specialist (<i>Company</i>)	55	34.95	1,922
Company Support Labor			
Facility Mgr. (<i>Company</i>)	65	60.50	3,933
Environmental Site Rep. (<i>Company</i>)	65	24.20	1,573
Safety Site Rep. (<i>Company</i>)	65	24.20	1,573
Contracted Labor			
Project Management (<i>Outside Labor</i>)			117,960
Project Site Safety (<i>Outside Labor</i>)	75	69.90	5,243
Document Control (<i>Outside Labor</i>)	65	34.95	2,272
Subtotal			142,689

Beginning of Workpaper Group
00708C - RBDC Pre-Action Zone Pipe Repair

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 00708C - RBDC Pre-Action Zone Pipe Repair

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	18	0	0
Non-Labor	Zero-Based	0	0	0	0	0	928	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	946	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

Business Purpose:

The Server Rooms, MDF and Telecom Rooms at RBDC are protected with a pre-action fire suppression system. The system is 35 years old and has experienced pin hole leaks in the piping caused by corrosion on the interior of the piping. In order to prevent total system failure, this project will replace the existing system with a like system.

Physical Description:

The scope of this project includes the design, permitting, procurement, and installation of new pre-action system piping. The existing preaction system piping will be removed back to the riser manifold. In phases, the existing preaction system piping will be removed, one zone at a time, and new piping and heads installed. All preaction piping and heads in the original portion of the building (zones 1, 2, and 3) will be replaced. Existing flow switches, tampers switches and all other detection and control devices to remain and be re-used.

Project Justification:

The pre-action fire suppression system is located in the ceiling above the critical data center infrastructure. Any leakage or sytem failure could lead to significant damage and/or a system outtages at the data center. The pre-action fire suppression system is installed above the ceiling (overhead), and any water leak over in the server rooms could damage the IT equipment below.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00708.0
Category: F. Infrastructure and Reliability
Category-Sub: 1. Infrastructure and Reliability
Workpaper Group: 00708C - RBDC Pre-Action Zone Pipe Repair

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00708.0
 Category: F. Infrastructure and Reliability
 Category-Sub: 1. Infrastructure and Reliability
 Workpaper Group: 00708C - RBDC Pre-Action Zone Pipe Repair
 Workpaper Detail: 00708C.001 - 2021-000174 - RBDC Pre-Action Zone Pipe Repair
 In-Service Date: 10/31/2022

Description:

Budget Code 708 - Zero Based Project Estimate

Forecast In 2021 \$(000)			
Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor	18	0	0
Non-Labor	928	0	0
NSE	0	0	0
Total	946	0	0
FTE	0.1	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00708C

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

**2021-000174 RBDC Pre-Action Zone Pipe Repair
Pre-Authorization Project Budget**

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
Architectural and Engineering			
Reprographics	500	1.00	500
Permitting/Planning/Inspections			
Plan Checks & Permits	3,000	1.00	3,000
Testing & Inspections	2,500	1.00	2,500
Construction			
Construction Services	805,775	1.00	805,775
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	2,500	1.00	2,500
Removal			
Demolition & Removals	5,000	1.00	5,000
Misc HazMat Disposal	5,000	1.00	5,000
IT, Audio Visual & Security			
Security Equipment	15,000	1.00	15,000
Subtotal			839,275
Contingency @ 10%			83,927
Construction Cost Totals			923,202
Company CPM Labor			9,621
Company Support Labor			10,368
Contracted Labor			106,659
PM, Labor Cost Totals			126,647

Project Total	1,049,849
----------------------	------------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	33.18	2,820
Project Analyst (Company)	75	33.18	2,488
Business Analyst (Company)	75	33.18	2,488
Facilities Specialist (Company)	55	33.18	1,825
Company Support Labor			
Facility Mgr. (Company)	65	151.50	9,848
Environmental Site Rep. (Company)	65	4.00	260
Safety Site Rep. (Company)	65	4.00	260
Contracted Labor			
Project Management (Outside Labor)			99,526
Project Site Safety (Outside Labor)	75	66.35	4,976
Document Control (Outside Labor)	65	33.18	2,156
Subtotal			126,647

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Category: G. Remodel / Relocate / Reconfigure
Workpaper: VARIOUS

Summary for Category: G. Remodel / Relocate / Reconfigure

	In 2021\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Labor	277	202	91	37
Non-Labor	9,315	13,335	5,978	2,457
NSE	0	0	0	0
Total	9,592	13,537	6,069	2,494
FTE	2.4	1.6	2.5	0.3

007090 COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG

Labor	277	37	37	37
Non-Labor	9,315	2,457	2,457	2,457
NSE	0	0	0	0
Total	9,592	2,494	2,494	2,494
FTE	2.4	0.3	0.3	0.3

00709C RBDC Secure Walkway Installation

Labor	0	13	0	0
Non-Labor	0	845	0	0
NSE	0	0	0	0
Total	0	858	0	0
FTE	0.0	0.1	0.0	0.0

00709D RBDC SRC (System Reliability Center) TI

Labor	0	53	0	0
Non-Labor	0	3,477	0	0
NSE	0	0	0	0
Total	0	3,530	0	0
FTE	0.0	0.4	0.0	0.0

00709E Metro Building Crew Room Reconfiguration

Labor	0	31	0	0
Non-Labor	0	2,055	0	0
NSE	0	0	0	0
Total	0	2,086	0	0
FTE	0.0	0.2	0.0	0.0

00709F Metro Locker Room Remodel & Expansion

Labor	0	0	31	0
Non-Labor	0	0	2,043	0
NSE	0	0	0	0
Total	0	0	2,074	0
FTE	0.0	0.0	0.2	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Category: G. Remodel / Relocate / Reconfigure
Workpaper: VARIOUS

	In 2021\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
00709G Miramar Equipment Ops Locker Facility				
Labor	0	11	23	0
Non-Labor	0	753	1,478	0
NSE	0	0	0	0
Total	0	764	1,501	0
FTE	0.0	0.1	2.0	0.0
00709H Mountain Empire Bldg 1 Remodel				
Labor	0	28	0	0
Non-Labor	0	1,841	0	0
NSE	0	0	0	0
Total	0	1,869	0	0
FTE	0.0	0.2	0.0	0.0
00709I Northcoast Interior Refresh				
Labor	0	14	0	0
Non-Labor	0	912	0	0
NSE	0	0	0	0
Total	0	926	0	0
FTE	0.0	0.1	0.0	0.0
00709K Miramar Bldg A Locker Room Remodel				
Labor	0	9	0	0
Non-Labor	0	584	0	0
NSE	0	0	0	0
Total	0	593	0	0
FTE	0.0	0.1	0.0	0.0
00709L Eastern C&O Tool Storage Warehouse Office				
Labor	0	6	0	0
Non-Labor	0	411	0	0
NSE	0	0	0	0
Total	0	417	0	0
FTE	0.0	0.1	0.0	0.0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
007090 - COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 007090 - COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Labor	Zero-Based	459	632	374	617	277	37	37	37
Non-Labor	Zero-Based	23,880	14,408	5,286	28,853	9,315	2,457	2,457	2,457
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		24,339	15,040	5,661	29,470	9,593	2,494	2,494	2,494
FTE	Zero-Based	3.3	5.4	2.9	5.0	2.4	0.3	0.3	0.3

Business Purpose:

This budget funds tenant improvement construction, spatial remodels and associated work station moves and changes needed to provide adequate and efficient office space and work environments for employees . Requirements are based on business needs and functionality needed to meet business and resource 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 for employees.

Physical Description:

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

Project Justification:

These projects 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 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
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00709.0
Category: G. Remodel / Relocate / Reconfigure
Category-Sub: 1. Remodel / Relocate / Reconfigure
Workpaper Group: 007090 - COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG

Forecast Methodology:

Labor - Zero-Based

3-Year Average

Non-Labor - Zero-Based

3-Year Average

NSE - Zero-Based

N/A

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 007090 - COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG

Summary of Adjustments to Forecast

In 2021 \$ (000)										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	Zero-Based	37	37	37	0	0	0	37	37	37
Non-Labor	Zero-Based	2,457	2,457	2,457	0	0	0	2,457	2,457	2,457
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
Total		2,494	2,494	2,494	0	0	0	2,494	2,494	2,494
FTE	Zero-Based	0.3	0.3	0.3	0.0	0.0	0.0	0.3	0.3	0.3

Forecast Adjustment Details

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
2022 Total	0	0	0	0	0.0
2023 Total	0	0	0	0	0.0
2024 Total	0	0	0	0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 007090 - COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG

Determination of Adjusted-Recorded:

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	327	473	291	505	87
Non-Labor	19,582	12,424	4,643	27,007	2,237
NSE	0	0	0	0	0
Total	19,909	12,897	4,934	27,512	2,324
FTE	2.8	4.5	2.4	4.2	0.7
Adjustments (Nominal \$)**					
Labor	0	0	3	1	154
Non-Labor	0	0	97	17	7,079
NSE	0	0	0	0	0
Total	0	0	100	18	7,233
FTE	0.0	0.1	0.1	0.1	1.6
Recorded-Adjusted (Nominal \$)					
Labor	327	473	293	506	241
Non-Labor	19,582	12,424	4,740	27,024	9,315
NSE	0	0	0	0	0
Total	19,909	12,897	5,034	27,530	9,556
FTE	2.8	4.6	2.5	4.3	2.3
Vacation & Sick (Nominal \$)					
Labor	49	72	42	72	36
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	49	72	42	72	36
FTE	0.5	0.8	0.4	0.7	0.1
Escalation to 2021\$					
Labor	83	87	39	39	0
Non-Labor	4,298	1,984	546	1,829	0
NSE	0	0	0	0	0
Total	4,381	2,071	585	1,868	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2021\$)					
Labor	459	632	374	617	277
Non-Labor	23,880	14,408	5,286	28,853	9,315
NSE	0	0	0	0	0
Total	24,339	15,040	5,661	29,470	9,593
FTE	3.3	5.4	2.9	5.0	2.4

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 007090 - COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG

Summary of Adjustments to Recorded:

In Nominal \$(000)					
Years	2017	2018	2019	2020	2021
Labor	0	0	3	1	154
Non-Labor	0	0	97	17	7,079
NSE	0	0	0	0	0
Total	0	0	100	18	7,233
FTE	0.0	0.1	0.1	0.1	1.6

Detail of Adjustments to Recorded in Nominal \$:

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
2017 Total	0	0	0	0	0.0
2018	0.294	0	0	0.294	0.1
Explanation:	Transfer BC 702 to 709.				
2018 Total	0.294	0	0	0.294	0.1
2019	3	97	0	100	0.1
Explanation:	Transfer BC 702 to 709.				
2019 Total	3	97	0	100	0.1
2020	1	17	0	18	0.1
Explanation:	Transfer BC 702 to 709.				
2020 Total	1	17	0	18	0.1
2021	1	22	0	24	0.1
Explanation:	Transfer BC 702 to 709.				
2021	4	168	0	172	0.1
Explanation:	Transfer BC 21721 Northeast Building 1 Locker Room to BC 709				
2021	15	513	0	528	0.1
Explanation:	Transfer 21724 Miramar Building A Locker Room to BC 709.				
2021	20	275	0	296	0.2
Explanation:	Transfer BC 21725 Mountain Empire Tenant Improvement to BC 709				
2021	27	602	0	629	0.2
Explanation:	Transfer BC 21726 Metro Crew Room to BC 709				
2021	14	90	0	104	0.1
Explanation:	Transfer BC 21727 Metro Locker Room Expansion to BC 709				
2021	14	643	0	657	0.1

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 007090 - COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
Explanation:	Transfer 21732 Metro EDO BUCC Improvements to BC 709.				
2021	5	546	0	552	0.1
Explanation:	BC 21735 RBDC Secure Walkway Installation to BC 709				
2021	20	2,039	0	2,058	0.2
Explanation:	Transfer 21741 RBDC SRC to BC 709.				
2021	5	880	0	885	0.1
Explanation:	Transfer BC 21743 LED Light Conversion to BC 709				
2021	6	99	0	105	0.1
Explanation:	Transfer BC 21745 Metro Warehouse Break Room Improvements to BC 709				
2021	4	783	0	787	0.1
Explanation:	Transfer BC 21748 Eastern C&O Tool Storage to BC 709.				
2021	17	418	0	436	0.1
Explanation:	Transfer BC 21751 Miramar Equipment Ops Locker to BC 709				
2021 Total	154	7,079	0	7,233	1.6

Note: Totals may include rounding differences.

**Beginning of Workpaper Sub Details for
Workpaper Group 007090**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 007090 - COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG
 Workpaper Detail: 007090.001 - Remodel / Relocate / Reconfigure Blanket - Non Shared Service Projects
 In-Service Date: Not Applicable
 Description:

Budget Code 709 Blanket - Non Shared Service Projects

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		37	29	37
Non-Labor		2,457	1,965	2,457
NSE		0	0	0
Total		2,494	1,994	2,494
FTE		0.3	0.2	0.3

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
 2024 GRC - REVISED
 Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 007090 - COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG
 Workpaper Detail: 007090.002 - Remodel / Relocate / Reconfigure Blanket - Shared Service Project
 In-Service Date: 08/31/2023

Description:

Budget Code 709 Blanket - Shared Service Project 2017-000127 - CP6 Cafe Expansion & Improvements
--

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		0	8	0
Non-Labor		0	492	0
NSE		0	0	0
	Total	0	500	0
FTE		0.0	0.1	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 007090

Budget Code Grouping	BC Name	Budget Code	BC Name	Fiscal year					Grand Total	3 - Year Average (2019-2021)
				2017	2018	2019	2020	2021		
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG BLANKET	00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	8,464,051	1,046,572	2,128,196	2,995,840	2,360,644	16,995,303	2,494,894
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	14751.0	CP1 FINISH REFRESH	397					397	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	14753.0	CP6 CUSTOMER CALL CTR TI	3,676,379	1,886				3,678,265	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	14757.0	CP 3-3 EXEC. OPERATIONS PERFORMANCE CTR	47,333					47,333	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	16766.0	TRANS ENERGY MGT SYSTEM MODERNIZATION	9,974,261	8,003,837	(132,103)	6,222		17,852,217	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	16769.0	BEACH CITIES LOCKER ROOM REFRESH	(33,141)					(33,141)	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	16770.0	MORENO VALLEY ADMIN BLDG IMPROVEMENTS	736,027	195				736,222	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	17774.0	SKILLS TRAINING INTERIOR IMPROV PH2	1,085,207	517,354				1,602,562	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	18777.0	CP1 TENANT IMPROVEMENTS	135,459	1,068,270	1,064,111	16,687,775	101,675	19,057,290	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	18778.0	MISSION DIST CONTROL CENTER REMODEL		153,805	55,763	16,357	24,544	250,469	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	18779.0	MISSION TELECOM TENANT IMPROVEMENTS	252,769	2,769,600	141,823			3,164,192	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	18781.0	GREENCRAIG A ARSO RETROFIT		1,478,048	155,731			1,633,779	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	19782.0	NORTHEAST WH LOCKER ROOM IMPROVEMENT			350,095	1,650,681	25,601	2,026,377	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	19790.0	19-89 KEARNY C&O LOCKER ROOM REFRESH			138,032	1,291,013	11,299	1,440,344	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	20754.0	MIRAMAR TRAILERS 1&2				1,200,567	40,621	1,241,188	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	20758.0	KEARNY RTU TECH RELOCATION				1,221,403	(133,319)	1,088,084	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	20759.0	GREENCRAIG B RECONFIGURATION				694,896	107,299	802,196	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	20785.0	CP4 TENANT IMPROVEMENTS				413,476	5,353	418,829	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	20787.0	EASTERN C&O WAREHOUSE REMODEL			844,667	666,701	455	1,511,822	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	20789.0	KEARNY C&O REFRESH			900,996	428,461	4,537	1,333,994	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	20793.0	RUFFIN COURT OFFICE RECONFIGURE			13,249	2,196,712	(188,156)	2,021,804	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	21721.0	NORTHEAST BUILDING 1 LOCKER ROOM REMODEL					172,797	172,797	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	21724.0	MIRAMAR BUILDING A LOCKER ROOM					530,421	530,421	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	21725.0	MOUNTAIN EMPIRE SITE AND TENANT IMPROVEM					298,712	298,712	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	21728.0	METRO BUILDING CREW ROOM RECONFIGURATION					633,404	633,404	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	21727.0	METRO LOCKER ROOM EXPANSION					106,608	106,608	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	21732.0	METRO EDO BUCC IMPROVEMENTS					658,617	658,617	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	21735.0	RBDC SECURE WALKWAY INSTALLATION					552,711	552,711	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	21741.0	RBDC NOC TI					2,061,201	2,061,201	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	21743.0	LED LIGHT CONVERSION PROGRAM					885,362	885,362	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	21745.0	METRO WAREHOUSE BREAK ROOM IMPROVEMENTS					106,066	106,066	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	21748.0	EASTERN C&O TOOL STORAGE WAREHOUSE					787,785	787,785	
00709.0	COMM. PLANT BLKT-REMODEL/RELOC/RECONFIG	21751.0	MIRAMAR EQUIPMENT OPS LOCKER FACILITY					438,273	438,273	
00709.0 Total				24,338,742	15,039,568	5,660,558	29,470,103	9,592,513	84,101,484	

3-year historical average calculated only on blanket projects included in the Budget Code 709 blanket. Projects with total budgets over \$1M and associated with a specific budget code are not included in 3-year average calculations.

Budget Code	Project Budget Code	GRC Workpaper	Proj_ID	Project Name	2022	2023	2024	2021-2024 Total
709	709 Remodel/Relocate/Reconfig Blanket		2021-000029	2021 Remodel/Relocate/Reconfigure Blanket	162,894	1,494,894	2,494,894	4,152,682
709	709 Remodel/Relocate/Reconfig	007090.02	2017-000127	CP6 Cafe Expansion & Improvements	-	500,000	-	500,000
709	709 Remodel/Relocate/Reconfig	007090.01	2021-000177	Metro Bldg A Carpet Replacement	60,000	-	-	60,000
709	709 Remodel/Relocate/Reconfig	007090.01	2021-000076	Metro Bldg B Server Room Improvements	450,000	-	-	450,000
709	709 Remodel/Relocate/Reconfig	007090.01	2015-000087	Miramar Garage Office & Break Room	323,000	-	-	323,000
709	709 Remodel/Relocate/Reconfig	007090.01	2021-000127	Miramar NRG Restroom Remodel	193,000	-	-	193,000
709	21722 Gillespie Hanger TI	007090.01	2021-000003	Gillespie Field Main Hangar TI	373,000	-	-	373,000
709	21745 Metro WH Break Rm Imprv	007090.01	2019-000141	Metro Warehouse Breakroom Improvements	560,000	-	-	560,000
709	709 Remodel/Relocate/Reconfig	007090.01	2020-000139	Miramar Weld School Gas Cylinder Storage	7,000	-	-	7,000
709	709 Remodel/Relocate/Reconfig	007090.01	2019-000082	Mission Control 1st Floor Restroom Upgrade	10,000	-	-	10,000
709	21721 NE Building 1 Remodel	007090.01	2020-000051	Northeast Building 1 Shower Room Remodel	156,000	-	-	156,000
709	709 Remodel/Relocate/Reconfig	007090.01	2021-000195	Mountain Empire Exterior Break Area	-	500,000	-	500,000
709	709 Remodel/Relocate/Reconfig	007090.01	2021-000131	Northeast Gas Locker Rm Remodel	200,000	-	-	200,000
709 Blanket Total					2,494,894	2,494,894	2,494,894	7,484,682

Beginning of Workpaper Group
00709C - RBDC Secure Walkway Installation

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709C - RBDC Secure Walkway Installation

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	13	0	0
Non-Labor	Zero-Based	0	0	0	0	0	845	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	858	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

Business Purpose:

At the Rancho Bernardo Data Center, there is no interior corridor between the office area and the warehouse, which is located at the back side of the building. To get to the warehouse, staff must travel through server room #1, which is a secured and sensitive environment. This project proposes to install a secure walkway from the main entrance area and office area to the warehouse without entering any server room.

Physical Description:

The project consists of the design, permitting, and installation of a secured, fire rated corridor from the main entrance to the warehouse corridor at the Rancho Bernardo Data Center. The corridor will be constructed of metal studs and drywall, will be 1 hour fire rated, with hollow metal windows with tempered glazing, two 3'x7' doors, new lighting, and HVAC. fire alarm.

Project Justification:

Installing the secure walkway between the main entrance area to the warehouse will increase the security posture at the RBDC Data Center by cutting traffic through the secure server room.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00709.0
Category: G. Remodel / Relocate / Reconfigure
Category-Sub: 1. Remodel / Relocate / Reconfigure
Workpaper Group: 00709C - RBDC Secure Walkway Installation

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709C - RBDC Secure Walkway Installation
 Workpaper Detail: 00709C.001 - 2019-000180 - RBDC Secure Walkway Installation
 In-Service Date: 04/30/2022

Description:

Budget Code 709 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		13	0	0
Non-Labor		845	0	0
NSE		0	0	0
	Total	858	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00709C

2019-000180 RBDC Secure Walkway Installation Authorized Project Budget

	CAPITAL		
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	80,000	1.00	80,000
Architectural Services	7,500	1.00	7,500
Reprographics	500	1.00	500
Permitting/Planning/Inspections			
Plan Checks & Permits	6,000	1.00	6,000
Testing & Inspections	6,000	1.00	6,000
Construction			
Construction Services	883,300	1.00	883,300
Removal - Furniture	1,500	1.00	1,500
Low Voltage Cabling	7,000	1.00	7,000
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	4,000	1.00	4,000
Removal			
Demolition & Removals	500	1.00	500
Real Estate & Planning			
Move Management	1,500	1.00	1,500
Move Implementation	1,500	1.00	1,500
Signage (Interior)	500	1.00	500
IT, Audio Visual & Security			
Security & Surveillance	35,000	1.00	35,000
Security Equipment	36,000	1.00	36,000
Subtotal			1,070,800
Contingency @ 20%			214,160
Construction Cost Totals			1,284,960
Company CPM Labor			16,081
Company Support Labor			2,600
Contracted Labor			6,139
PM, Labor Cost Totals			24,820

Project Total	1,309,780
----------------------	------------------

	CAPITAL		
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor			
Program Management (<i>Company</i>)	85	28.55	2,427
Planning & Design Management (<i>Company</i>)	65	120.00	7,800
Project Analyst (<i>Company</i>)	75	28.55	2,142
Business Analyst (<i>Company</i>)	75	28.55	2,142
Facilities Specialist (<i>Company</i>)	55	28.55	1,571
Company Support Labor			
Move Coordinator (<i>Company</i>)	65	40.00	2,600
Contracted Labor			
Project Coordination (<i>Outside Labor</i>)	75	57.11	4,283
Document Control (<i>Outside Labor</i>)	65	28.55	1,856
Subtotal			24,820

Beginning of Workpaper Group
00709D - RBDC SRC (System Reliability Center) TI

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709D - RBDC SRC (System Reliability Center) TI

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Labor	Zero-Based	0	0	0	0	0	53	0	0
Non-Labor	Zero-Based	0	0	0	0	0	3,477	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	3,530	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0

Business Purpose:

The existing NOC (Network Operations Center) has been operating in its existing space for over 25 years and due to its age, is no longer to the standards necessary to manage the companies assets. A new space, reimagined as the System Reliability Center will occupy the same footprint as the existing, but will have an improved layout that helps manage security and safety of the information, allows for visual access to the new direct view LED screen from all areas. There will be a situation room for executive level meetings and a standard conference room as well as a small breakroom.

Physical Description:

The project will provide tenant improvements to roughly 5,800 sf of the RBDC, optimizing operations and delivering state of the art technology and security. A major component will be a new 20' x 6' direct view LED video wall. The area will receive current audio/visual technology, new carpet, paint, lighting, acoustical treatments, demountable partitions, and furniture with sit/stand work surfaces. The sub-floor electrical system will be upgraded to current plug and play technology through new floor boxes, cable hubs and universal connectors. The support spaces include a situation room, workroom/lab, break area and conference room.

Project Justification:

The Network Operations Center, in its current form has not had any improvements of significance, excepting a limited remodel completed in 2009 that included furniture and carpet replacement, and painting, only. The original AV equipment has never been upgraded and lacks adequate visual acuity and sight lines. The existing visual display is a row of outdated rear-projection monitors, centered at 15' above floor level and above the recommended ergonomic height for seated operators. The monitors pre-date HD technology and focus light straightforward towards on-axis viewers. As a result, network operators viewing from an angle experience light reduction and color uniformity issues.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00709.0
Category: G. Remodel / Relocate / Reconfigure
Category-Sub: 1. Remodel / Relocate / Reconfigure
Workpaper Group: 00709D - RBDC SRC (System Reliability Center) TI

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709D - RBDC SRC (System Reliability Center) TI
 Workpaper Detail: 00709D.001 - 2014-000068 - RBDC SRC (System Reliability Center)
 In-Service Date: 07/31/2022

Description:

Budget Code 709 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		53	0	0
Non-Labor		3,477	0	0
NSE		0	0	0
	Total	<u>3,530</u>	<u>0</u>	<u>0</u>
FTE		0.4	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00709D

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

**2014-000068 RBDC Network Operations Center Modernization
Authorized Project Budget**

	CAPITAL		
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	548,380	1.00	548,380
Architectural Services - Programming	34,262	1.00	34,262
AV Design Drawings	41,804	1.00	41,804
Specialty Consulting Services	96,560	1.00	96,560
Pre-Construction Services	24,600	1.00	24,600
Permitting/Planning/Inspections			
Plan Checks & Permits	20,000	1.00	20,000
Testing & Inspections	5,000	1.00	5,000
Construction			
Construction Services	2,100,282	1.00	2,100,282
Removal - Furniture	5,000	1.00	5,000
Low Voltage Cabling	95,000	1.00	95,000
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	8,000	1.00	8,000
Removal			
Misc HazMat Disposal	10,000	1.00	10,000
Real Estate & Planning			
Artwork & Graphics	9,300	1.00	9,300
Furniture	250,000	1.00	250,000
Interior Plants	5,000	1.00	5,000
Move Management	6,000	1.00	6,000
Move Implementation	8,500	1.00	8,500
Signage (Interior)	4,500	1.00	4,500
IT, Audio Visual & Security			
IT Consulting Services	53,610	1.00	53,610
IT Equipment	20,000	1.00	20,000
Audio Visual Services	1,800,000	1.00	1,800,000
Security & Surveillance	40,000	1.00	40,000
Subtotal			5,185,798
Contingency @ 10%			518,580
Construction Cost Totals			5,704,378
Company CPM Labor			33,700
Company Support Labor			24,167
Contracted Labor			126,100
PM, Labor Cost Totals			183,967

Project Total	5,888,345
----------------------	------------------

	CAPITAL		
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	55.00	4,675
Design Project Management (Company)	65	50.00	3,250
Construction Project Management (Company)	65	160.00	10,400
Project Analyst (Company)	75	75.00	5,625
Business Analyst (Company)	75	75.00	5,625
Facilities Specialist (Company)	55	75.00	4,125
Company Support Labor			
Facility Mgr. (Company)	65	100.00	6,500
Environmental Site Rep. (Company)	65	91.80	5,967
Safety Site Rep. (Company)	65	180.00	11,700
Contracted Labor			
Project Coordination (Outside Labor)	75	90.00	6,750
Document Control (Outside Labor)	65	60.00	3,900
Construction Management (Outside Labor)	105	630.00	66,150
Planning & Design Management (Outside Labor)	95	500.00	47,500
Planning & Design Change Management (Outside Labor)	75	24.00	1,800
Subtotal			183,967

Beginning of Workpaper Group
00709E - Metro Building Crew Room Reconfiguration

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709E - Metro Building Crew Room Reconfiguration

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	31	0	0
Non-Labor	Zero-Based	0	0	0	0	0	2,055	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	2,086	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

Business Purpose:

To serve its customers more efficiently and safely, Metro Construction & Operations (C&O) leadership has communicated that the site could benefit from additional conferencing space and improved adjacency between the C&O Manager's office and reporting Construction Managers and Supervisors. Additionally, the existing lower level of the 2-story Metro administrative office building, where crews report and are dispatched, does not have a singular location to host all of the crew staff in one location for safety meetings, briefings, etc. which are held daily. This project will create such a location, reconfigure the management offices and provide more conference space . .

Physical Description:

The project will provide tenant improvements to roughly 7,400 SF of the Metro C&O Administration building, optimizing operations for electric and gas management, supervisory staff, and crews. Through the elimination and downsizing of existing rooms, a new electric crew room will be sized to accommodate gas and electric all-hands meetings. Three new conference rooms will be created and outfitted to current AV equipment standard, and the C&O Manager's office will be relocated to a consolidated construction managers' office area. A new wellness room will also be provided. The project scope includes HVAC, electrical, plumbing, acoustical ceiling, flooring, partitions, associated finishes and required security modifications.

Project Justification:

The current electric crew room is too small for the headcount and is not an effective area to conduct the required business. The existing crew room is not effectively utilized and there is opportunity to incorporate this space into a collectively more efficient and effective floorplan. Additionally, this project will co-locate the C&O Manager office with team / management, add desperately needed conference space, create separation for the supervisors, and optimize potentially unrequired storage areas.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00709.0
Category: G. Remodel / Relocate / Reconfigure
Category-Sub: 1. Remodel / Relocate / Reconfigure
Workpaper Group: 00709E - Metro Building Crew Room Reconfiguration

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709E - Metro Building Crew Room Reconfiguration
 Workpaper Detail: 00709E.001 - 2017-000123 - Metro Building Crew Room Reconfiguration
 In-Service Date: 09/30/2022

Description:

Budget Code 709 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		31	0	0
Non-Labor		2,055	0	0
NSE		0	0	0
	Total	<u>2,086</u>	<u>0</u>	<u>0</u>
FTE		0.2	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00709E

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

**Metro Crew Room Reconfiguration
Authorized Project Budget**

		CAPITAL		
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal	
Architectural and Engineering				
Architectural and Engineering	93,125	1.00	93,125	
Electrical Engineering	2,500	1.00	2,500	
Reprographics	2,000	1.00	2,000	
Permitting/Planning/Inspections				
Plan Checks & Permits	8,000	1.00	8,000	
Testing & Inspections	15,000	1.00	15,000	
Construction				
Construction Services	1,274,814	1.00	1,274,814	
Removal - Furniture	5,000	1.00	5,000	
Environmental & Safety Services				
Asbestos and Lead Sampling/Analysis	4,500	1.00	4,500	
Mitigation Monitoring	15,000	1.00	15,000	
Real Estate & Planning				
Furniture	330,000	1.00	330,000	
Interior Plants	5,000	1.00	5,000	
Moving Costs	25,000	1.00	25,000	
Move Implementation	1,500	1.00	1,500	
Signage (Interior)	15,000	1.00	15,000	
Signage (Exterior)	1,000	1.00	1,000	
IT, Audio Visual & Security				
IT Consulting Services	25,000	1.00	25,000	
Telecom	500	25.00	12,500	
Audio Visual Equipment	25,000	1.00	25,000	
Security & Surveillance	47,000	1.00	47,000	
Subtotal			1,906,939	
Contingency @ 10%			190,694	
Construction Cost Totals			2,097,633	
Company CPM Labor			49,011	
Company Support Labor			43,154	
Contracted Labor			124,581	
PM, Labor Cost Totals			216,746	

Project Total	2,314,379
----------------------	------------------

		CAPITAL		
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal	
Company CPM Labor				
Program Management (Company)	85	43.49	3,696	
Planning & Design Management (Company)	65	560.00	36,400	
Project Analyst (Company)	75	43.49	3,262	
Business Analyst (Company)	75	43.49	3,262	
Facilities Specialist (Company)	55	43.49	2,392	
Company Support Labor				
Facility Mgr. (Company)	65	235.50	15,308	
Audio-Visual Project Advisor (Company)	65	40.00	2,600	
Move Coordinator (Company)	65	200.00	13,000	
Environmental Site Rep. (Company)	65	94.20	6,123	
Safety Site Rep. (Company)	65	94.20	6,123	
Contracted Labor				
Project Management (Outside Labor)			107,632	
Project Site Safety (Outside Labor)	75	86.98	6,523	
Document Control (Outside Labor)	65	43.49	2,827	
Planning & Design Management (Outside Labor)	95	80.00	7,600	
Subtotal			216,746	

Beginning of Workpaper Group
00709F - Metro Locker Room Remodel & Expansion

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709F - Metro Locker Room Remodel & Expansion

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	31	0	
Non-Labor	Zero-Based	0	0	0	0	0	2,043	0	
NSE	Zero-Based	0	0	0	0	0	0	0	
Total		0	0	0	0	0	2,074	0	
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.2	0.0	

Business Purpose:

The existing locker rooms located at the Metro Construction & Operations Center (C&O) have not had finishes refreshed n over 15 years and the existing plumbing infrastructure dates to the original building construction from roughly 50 years ago. To enhance employee engagement, safety and operational readiness, Metro site leadership has requested a complete renovation of these spaces. This project will construct a 40'x45' building expansion to accommodate increased space requirements, a perform a full remodel of the existing restrooms, showers and locker areas. The remodeled space will also include a rest area for field crews who have worked numerous long hours.

Physical Description:

The project will provide roughly 3,500 SF of tenant improvement construction, optimizing the space for showers, lockers, and restroom facilities. All areas will have finishes removed and replaced, and showers will be updated to the current SDG&E C&O standard for size, shower head and privacy. Plumbing fixtures and piping, both underground and in-wall, will be replaced in their entirety within the building perimeter. Fixtures will be updated for improved water use efficiency, and lockers will be updated to include SDG&E C&O standard locker sizes for lineman and miscellaneous staff use. The full scope of the project includes new HVAC, electrical, plumbing, acoustical ceiling, flooring, restroom partitions, paint and temporary restroom and shower facilities during construction.

Project Justification:

As a result of existing conditions, leaks and moisture in walls are ongoing maintenance and safety issues, and the rooms in general have a worn appearance because of age and the daily movement of tools to and from equipment lockers. The project will mitigate maintenance and health risks, enhance operational reliability, improve water use efficiency and address shower privacy concerns.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00709.0
Category: G. Remodel / Relocate / Reconfigure
Category-Sub: 1. Remodel / Relocate / Reconfigure
Workpaper Group: 00709F - Metro Locker Room Remodel & Expansion

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709F - Metro Locker Room Remodel & Expansion
 Workpaper Detail: 00709F.001 - 2014-000032 - Metro Locker Room Remodel & Expansion
 In-Service Date: 10/31/2023

Description:

Budget Code 709 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		0	31	0
Non-Labor		0	2,043	0
NSE		0	0	0
	Total	0	2,074	0
FTE		0.0	0.2	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00709F

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

2014-00032 Metro Locker Room Expansion
Pre-Authorization Scoping Estimate

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL	
		Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	78,050	1.00	78,050
Geotechnical Engineering	7,500	1.00	7,500
Reprographics	3,800	1.00	3,800
Permitting/Planning/Inspections			
Plan Checks & Permits	4,000	1.00	4,000
Testing & Inspections	12,500	1.00	12,500
Construction			
Construction Services	1,440,358	1.00	1,440,358
Enviromental & Safety Services			
Asbestos and Lead Sampling/Analysis	3,500	1.00	3,500
Mitigation Monitoring	7,500	1.00	7,500
Removal			
Asbestos and Lead Abatement	121,650	1.00	121,650
Real Estate & Planning			
Furniture	120,000	1.00	120,000
Moving Costs	5,000	1.00	5,000
Subtotal			1,803,858
Contingency @ 10%			180,386
Construction Cost Totals			1,984,244
Company CPM Labor			37,833
Company Support Labor			26,618
Contracted Labor			129,802
PM, Labor Cost Totals			194,252

Project Total	2,178,496
----------------------	------------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL	
		Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	5.00	425
Planning & Design Management (Company)	65	425.00	27,625
Project Analyst (Company)	75	47.72	3,579
Business Analyst (Company)	75	47.72	3,579
Facilities Specialist (Company)	55	47.72	2,625
Company Support Labor			
Facility Mgr. (Company)	65	227.50	14,788
Environmental Site Rep. (Company)	65	91.00	5,915
Safety Site Rep. (Company)	65	91.00	5,915
Contracted Labor			
Project Management (Outside Labor)			118,116
Project Site Safety (Outside Labor)	75	95.45	7,159
Document Control (Outside Labor)	65	47.72	3,102
Planning & Design Management (Outside Labor)	95	15.00	1,425
Subtotal			194,252

Beginning of Workpaper Group
00709G - Miramar Equipment Ops Locker Facility

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709G - Miramar Equipment Ops Locker Facility

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	11	23	0
Non-Labor	Zero-Based	0	0	0	0	0	753	1,478	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	764	1,501	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	2.0	0.0

Business Purpose:

Miramar Equipment Operations crew personnel need additional and larger lockers to accommodate increased headcount and house individually assigned tools and equipment. Also needed is a singular interior, secured area to store materials and equipment that are not used on a daily basis. The group's existing locker room in Building A offers no opportunity for expansion to address individual crew member needs, and there are no other permanent interior storage options available at the property.

Physical Description:

This project will construct a new 1,000 sf CMU building, which will include roll-up doors for vehicle loading access, heavy-duty shelving for tools and equipment storage, and 20 new lockers sized to the SDG&E lineman standard equivalent. The new building will be in proximity to the assigned parking area for the heavy vehicles and equipment transported and operated by this group.

Project Justification:

Equipment Operations field crews will benefit from the additional locker capacity included in the newly constructed space, and the proximity of stored materials, equipment and vehicles to their locker area. An incidental benefit will be the removal of 3 mobile storage containers from the property, and the resulting gain of site storage space that will be used for poles and additional parking capacity.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00709.0
Category: G. Remodel / Relocate / Reconfigure
Category-Sub: 1. Remodel / Relocate / Reconfigure
Workpaper Group: 00709G - Miramar Equipment Ops Locker Facility

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709G - Miramar Equipment Ops Locker Facility
 Workpaper Detail: 00709G.001 - 2020-000120 - Miramar Equipment Ops Locker Facility
 In-Service Date: 05/31/2023

Description:

Budget Code 709 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		11	23	0
Non-Labor		753	1,478	0
NSE		0	0	0
	Total	764	1,501	0
FTE		0.1	2.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00709G

**2020-000120 Miramar Equipment Operations Locker Facility
Pre-Authorization Scoping Estimate**

	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
--	-----------------------------------	---	-----------------

Architectural and Engineering			
Architectural Services	97,605	1.00	97,605
Geotechnical Engineering	9,951	1.00	9,951
Permitting/Planning/Inspections			
Plan Checks & Permits	30,000	1.00	30,000
Testing & Inspections	25,000	1.00	25,000
Construction			
Construction Services	1,683,370	1.10	1,851,707
Tenant Improvements			
EQUIPMENT (Lockers)	21,548	1.00	21,548
Partitions	6,000	1.00	6,000
Real Estate & Planning			
Moving Costs	15,000	1.00	15,000
Subtotal			2,056,811
Contingency @ 20%			411,362
Construction Cost Totals			2,468,173
Company CPM Labor			31,390
Company Support Labor			18,369
Contracted Labor			190,826
PM, Labor Cost Totals			240,585

Project Total	2,708,759
----------------------	------------------

	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
--	-----------------------------------	--	-----------------

Company CPM Labor			
Program Management (<i>Company</i>)	85	45.71	3,885
Planning & Design Management (<i>Company</i>)	65	279.00	18,135
Project Analyst (<i>Company</i>)	75	45.71	3,428
Business Analyst (<i>Company</i>)	75	45.71	3,428
Facilities Specialist (<i>Company</i>)	55	45.71	2,514
Company Support Labor			
Facility Mgr. (<i>Company</i>)	65	157.00	10,205
Environmental Site Rep. (<i>Company</i>)	65	62.80	4,082
Safety Site Rep. (<i>Company</i>)	65	62.80	4,082
Contracted Labor			
Project Management (<i>Outside Labor</i>)			180,999
Project Coordination (<i>Outside Labor</i>)	75	91.41	6,856
Document Control (<i>Outside Labor</i>)	65	45.71	2,971
Subtotal			240,585

Beginning of Workpaper Group
00709H - Mountain Empire Bldg 1 Remodel

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709H - Mountain Empire Bldg 1 Remodel

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Labor	Zero-Based	0	0	0	0	0	28	0	0
Non-Labor	Zero-Based	0	0	0	0	0	1,841	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	1,869	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

Business Purpose:

The Mt. Empire administration building interior has not been upgraded or refreshed for nearly 20 years. This project will remodel the facility to provide enhanced spatial efficiency, increased operational functionality and flexibility, upgraded technology, and a healthier work environment.

Physical Description:

The scope of this project will include the complete demolition of the 3,600 s.f. building interior and the replacement with all new partitions, fixtures and finishes. Currently, the crew room serves the additional functions of break and conference rooms for office-based employees. The project will provide separate rooms to serve each of the crew assembly, break area and conference room functions, allowing for more orderly operations and improved communication, particularly when sustaining emergency response activities. The shower areas will be updated to the current SDG&E C&O standards for size, shower head and stall privacy. The locker areas will be updated to include SDG&E C&O standard locker sizes for lineman and miscellaneous staff use. The project will also upgrade existing furniture to current ergonomic standards. All plumbing fixtures and piping, both underground and in-wall, will be replaced in their entirety within the building perimeter. The full scope of the project includes new HVAC, electrical, plumbing, fire sprinklers and alarm, acoustical ceiling, flooring, restroom partitions, paint, AV equipment and IT cabling. Temporary office and restroom facilities to maintain business continuity during construction are included in the project scope.

Project Justification:

The current interior layout and partitioning of the Mountain Empire C&O Center is inefficient spatially, leading to meeting and work disruptions and distractions, and poor communications. It does not meet current Company ergonomic furniture, water conserving plumbing fixtures or AV technology standards, and finishes are worn. Plumbing infrastructure is aged and could pose a risk to the reliability of the facility's operations.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00709.0
Category: G. Remodel / Relocate / Reconfigure
Category-Sub: 1. Remodel / Relocate / Reconfigure
Workpaper Group: 00709H - Mountain Empire Bldg 1 Remodel

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709H - Mountain Empire Bldg 1 Remodel
 Workpaper Detail: 00709H.001 - 2019-000165 - Mountain Empire Bldg 1 Remodel
 In-Service Date: 08/31/2022

Description:

Budget Code 709 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		28	0	0
Non-Labor		1,841	0	0
NSE		0	0	0
	Total	<u>1,869</u>	<u>0</u>	<u>0</u>
FTE		0.2	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00709H

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

**2019-000165 Mountain Empire Bldg 1 Remodel
Pre-Authorization Scoping Estimate**

Item Description/ or Phase of Work	CAPITAL		
	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	133,300	1.00	133,300
Plan Checks & Permits	15,000	1.00	15,000
Testing & Inspections	20,000	1.00	20,000
Construction			
Construction Services	1,243,232	1.00	1,243,232
Low Voltage Cabling	26,000	1.00	26,000
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	5,000	1.00	5,000
Soil Sampling/Analysis	5,000	1.00	5,000
Safety	20,000	1.00	20,000
Mitigation Monitoring	18,000	1.00	18,000
Removal			
Asbestos and Lead Abatement	52,770	1.00	52,770
Contaminated Soil Removal	5,000	1.00	5,000
Real Estate & Planning			
Furniture	157,650	1.00	157,650
Moving Costs	20,000	1.00	20,000
Signage (Interior)	20,000	1.00	20,000
IT, Audio Visual & Security			
IT Consulting Services	30,000	1.00	30,000
Audio Visual Equipment	56,987	1.00	56,987
Subtotal			1,827,939
Contingency @ 10%			182,794
Construction Cost Totals			2,010,733
Company CPM Labor			29,416
Company Support Labor			28,954
Contracted Labor			98,998
PM, Labor Cost Totals			157,368

Item Description/ or Phase of Work	CAPITAL		
	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Project Total 2,168,101			
Company CPM Labor			
Program Management (Company)	85	56.61	4,812
Planning & Design Management (Company)	65	200.00	13,000
Project Analyst (Company)	75	56.61	4,246
Business Analyst (Company)	75	56.61	4,246
Facilities Specialist (Company)	55	56.61	3,113
Company Support Labor			
Facility Mgr. (Company)	65	162.00	10,530
IT Project Mgr. (Company)	125	80.00	10,000
Environmental Site Rep. (Company)	65	64.80	4,212
Safety Site Rep. (Company)	65	64.80	4,212
Contracted Labor			
Project Management (Outside Labor)			86,827
Project Coordination (Outside Labor)	75	113.22	8,491
Document Control (Outside Labor)	65	56.61	3,680
Subtotal			157,368

**Beginning of Workpaper Group
00709I - Northcoast Interior Refresh**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709I - Northcoast Interior Refresh

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
	Years								
Labor	Zero-Based	0	0	0	0	0	14	0	0
Non-Labor	Zero-Based	0	0	0	0	0	912	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	926	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

Business Purpose:

The purpose of this project is to update the interior finishes and office furniture at the Northcoast C & O Center. The current office space has not been updated for over 15 years and does not meet company design and ergonomic standards.

Physical Description:

The project scope will include updates such as new carpet, paint, accoustical ceilings, ergonomic furniture systems and updated millwork for the breakrooms.

Project Justification:

The Northcoast C&O Center is overdue for an interior furniture and finishes refresh. This project will bring the site up to Company design standards.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00709.0
Category: G. Remodel / Relocate / Reconfigure
Category-Sub: 1. Remodel / Relocate / Reconfigure
Workpaper Group: 00709I - Northcoast Interior Refresh

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709I - Northcoast Interior Refresh
 Workpaper Detail: 00709I.001 - 2021-000211 - Northcoast Interior Refresh
 In-Service Date: 05/31/2022

Description:

Budget Code 709 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		14	0	0
Non-Labor		912	0	0
NSE		0	0	0
	Total	926	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00709I

2021-000211 Northcoast Interior Refresh
Final Project Authorization

Item Description/ or Phase of Work	CAPITAL		
	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Construction			
Carpet	404,000	1.00	404,000
Low Voltage Cabling	62,307	1.00	62,307
Real Estate & Planning			
Furniture	346,769	1.00	346,769
Subtotal			813,076
Contingency @ 10%			81,308
Scoping Escalation @ 0%			-
Construction Cost Totals			894,384
Company CPM Labor			18,313
Company Support Labor			8,353
Contracted Labor			4,662
PM, Labor Cost Totals			31,327
Project Total			925,711

Item Description/ or Phase of Work	CAPITAL		
	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor			
Program Management <i>(Company)</i>	85	21.68	1,843
Design Project Management <i>(Company)</i>	65	25.00	1,625
Planning & Design Management <i>(Company)</i>	65	160.00	10,400
Project Analyst <i>(Company)</i>	75	21.68	1,626
Business Analyst <i>(Company)</i>	75	21.68	1,626
Facilities Specialist <i>(Company)</i>	55	21.68	1,193
Company Support Labor			
Facility Mgr. <i>(Company)</i>	65	120.50	7,833
Environmental Site Rep. <i>(Company)</i>	65	4.00	260
Safety Site Rep. <i>(Company)</i>	65	4.00	260
Contracted Labor			
Project Site Safety <i>(Outside Labor)</i>	75	43.36	3,252
Document Control <i>(Outside Labor)</i>	65	21.68	1,409
Subtotal			31,327

Beginning of Workpaper Group
00709K - Miramar Bldg A Locker Room Remodel

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709K - Miramar Bldg A Locker Room Remodel

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	9	0	0
Non-Labor	Zero-Based	0	0	0	0	0	584	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	593	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

Business Purpose:

The purpose of this project is to remodel the locker room and restroom facilities located in Miramar Building A . The current restroom finishes, fixtures and plumbing infrastructure are at end-of life and in need of maintenance upgrades. The remodel will also upgrade the area for compliance with current ADA standards .

Physical Description:

The project scope will include the refresh of the Building A 1st floor locker room, shower area and restrooms. Also include in the project scope will be the reconfiguration of the existing locker room and the installation of new, larger lockers. Lastly, accessible pathways to and within the remodeled space will be improved.

Project Justification:

The current restroom and locker facilities located in Miramar Building A are in poor condition and in need of a refresh , and will be improved for expanded use by other employees not headquartered in Building A .

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00709.0
Category: G. Remodel / Relocate / Reconfigure
Category-Sub: 1. Remodel / Relocate / Reconfigure
Workpaper Group: 00709K - Miramar Bldg A Locker Room Remodel

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709K - Miramar Bldg A Locker Room Remodel
 Workpaper Detail: 00709K.001 - 2019-000181 Miramar Bldg A Locker Room Remodel
 In-Service Date: 06/30/2022

Description:

Budget Code 709 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		9	0	0
Non-Labor		584	0	0
NSE		0	0	0
	Total	593	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00709K

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

2019-000181 Miramar Bldg. A Locker Room and ADA Restrooms
Authorized Project Budget

		CAPITAL	
Bldg. A Locker Room and ADA Restroom Remodel	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal

Architectural and Engineering			
Architectural Services	94,675	1.00	94,675
Permitting/Planning/Inspections			
Plan Checks & Permits	5,000	1.00	5,000
Testing & Inspections	5,000	1.00	5,000
Construction			
Construction Services	508,046	1.00	508,046
Tenant Improvements			
EQUIPMENT (Lockers)	25,086	1.00	25,086
Enviromental & Safety Services			
Asbestos and Lead Sampling/Analysis	3,371	1.00	3,371
Removal			
Demolition & Removals	46,875	1.00	46,875
Asbestos and Lead Abatement	4,125	1.00	4,125
Real Estate & Planning			
Signage (Exterior)	40,000	1.00	40,000
Subtotal			732,178
Contingency @ 40%			292,871
Construction Cost Totals			1,025,049
Company CPM Labor			22,073
Company Support Labor			5,967
Contracted Labor			67,930
PM, Labor Cost Totals			95,970

Project Total	1,121,020
----------------------	------------------

		CAPITAL	
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal

Company CPM Labor			
Program Management (Company)	85	16.27	1,383
Planning & Design Management (Company)	65	267.00	17,355
Project Analyst (Company)	75	16.27	1,220
Business Analyst (Company)	75	16.27	1,220
Facilities Specialist (Company)	55	16.27	895
Company Support Labor			
Facility Mgr. (Company)	65	51.00	3,315
Environmental Site Rep. (Company)	65	20.40	1,326
Safety Site Rep. (Company)	65	20.40	1,326
Contracted Labor			
Project Management (Outside Labor)			64,432
Project Coordination (Outside Labor)	75	32.54	2,441
Document Control (Outside Labor)	65	16.27	1,058
Subtotal			95,970

Beginning of Workpaper Group
00709L - Eastern C&O Tool Storage Warehouse Office

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709L - Eastern C&O Tool Storage Warehouse Office

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	6	0	0
Non-Labor	Zero-Based	0	0	0	0	0	411	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	417	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

Business Purpose:

Tool handlers that work within the Eastern Construction & operations (C&O) warehouse require a conditioned and secured office inside the warehouse where the tools are stored and checked out. Secured storage for high-value gas and electric tools is also a necessity, as well as a room for meter storage and conducting minor repairs and calibrations. Improvement to the space for the housing of SDG&E standard linemen style lockers is also desired due to the space's proximity to the crew truck loading dock.

Physical Description:

The project will provide approximately 700 SF of new interior office and storage space, and roughly 800 SF of secured chain link fenced storage space all controlled with badge access. The office space will provide an area for workstations, install new lighting, mechanical systems and ergonomic furniture. Interior racking systems will be provided to improve spatial efficiency in both secured and unsecured areas. New lockers will be provided and reorganized for best use of space.

Project Justification:

This project is required to provide a healthier, enclosed and less disruptive work area for the tool handlers assigned to the Eastern C&O warehouse location, and improve spatial efficiency and security of newly designated storage and locker areas.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00709.0
Category: G. Remodel / Relocate / Reconfigure
Category-Sub: 1. Remodel / Relocate / Reconfigure
Workpaper Group: 00709L - Eastern C&O Tool Storage Warehouse Office

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00709.0
 Category: G. Remodel / Relocate / Reconfigure
 Category-Sub: 1. Remodel / Relocate / Reconfigure
 Workpaper Group: 00709L - Eastern C&O Tool Storage Warehouse Office
 Workpaper Detail: 00709L.001 - 2020-000015 - Eastern C&O Tool Storage Warehouse Office
 In-Service Date: 05/31/2022

Description:

Budget Code 709 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		6	0	0
Non-Labor		411	0	0
NSE		0	0	0
	Total	<u>417</u>	<u>0</u>	<u>0</u>
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00709L

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

2020-000015 Eastern C&O Tool Storage Warehouse
Authorized Project Budget

		CAPITAL	
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	94,165	1.00	94,165
Permitting/Planning/Inspections			
Plan Checks & Permits	15,000	1.00	15,000
Testing & Inspections	15,000	1.00	15,000
Construction			
Construction Services	666,657	1.10	733,323
Enviromental & Safety Services			
Asbestos and Lead Sampling/Analysis	5,000	1.00	5,000
Removal			
Asbestos and Lead Abatement	5,575	1.00	5,575
Real Estate & Planning			
Furniture	22,110	1.00	22,110
Moving Costs	49,333	1.00	49,333
Signage (Interior)	7,000	1.00	7,000
SPECIALTIES	120,893	1.00	120,893
IT, Audio Visual & Security			
IT Equipment	20,000	1.00	20,000
Security & Surveillance (access control / Surveillance)	44,288	1.00	44,288
Subtotal			1,131,686
Contingency @ 20%			226,337
Construction Cost Totals			1,358,024
Company CPM Labor			30,043
Company Support Labor			15,093
Contracted Labor			59,162
PM, Labor Cost Totals			104,298

Project Total	1,462,322
----------------------	------------------

		CAPITAL	
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	25.15	2,138
Planning & Design Management (Company)	65	350.00	22,750
Project Analyst (Company)	75	25.15	1,886
Business Analyst (Company)	75	25.15	1,886
Facilities Specialist (Company)	55	25.15	1,383
Company Support Labor			
Facility Mgr. (Company)	65	129.00	8,385
Environmental Site Rep. (Company)	65	51.60	3,354
Safety Site Rep. (Company)	65	51.60	3,354
Contracted Labor			
Project Management (Outside Labor)			53,755
Project Coordination (Outside Labor)	75	50.30	3,772
Document Control (Outside Labor)	65	25.15	1,635
Subtotal			104,298

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Category: H. Business Unit Expansion
Workpaper: VARIOUS

Summary for Category: H. Business Unit Expansion

	In 2021\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Labor	0	74	311	540
Non-Labor	0	3,172	23,183	34,091
NSE	0	0	0	0
Total	0	3,246	23,494	34,631
FTE	0.0	0.7	2.5	3.2

00710A Chula Vista Yard Security Improvements

Labor	0	0	20	88
Non-Labor	0	0	980	4,294
NSE	0	0	0	0
Total	0	0	1,000	4,382
FTE	0.0	0.0	0.2	0.6

00710B Kearny C&O Master Plan Ph 1

Labor	0	23	130	20
Non-Labor	0	1,110	6,372	980
NSE	0	0	0	0
Total	0	1,133	6,502	1,000
FTE	0.0	0.2	1.0	0.2

00710C Kearny Master Plan Phase 2

Labor	0	5	50	381
Non-Labor	0	245	2,450	18,645
NSE	0	0	0	0
Total	0	250	2,500	19,026
FTE	0.0	0.1	0.4	2.0

00710D Energy Innovation Center Decommissioning

Labor	0	16	0	0
Non-Labor	0	734	0	0
NSE	0	0	0	0
Total	0	750	0	0
FTE	0.0	0.1	0.0	0.0

00710F Miramar Site Improvements (Post NRG)

Labor	0	0	60	0
Non-Labor	0	0	3,000	0
NSE	0	0	0	0
Total	0	0	3,060	0
FTE	0.0	0.0	0.5	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Category: H. Business Unit Expansion
 Workpaper: VARIOUS

In 2021\$ (000)			
Adjusted-Recorded	Adjusted-Forecast		
2021	2022	2023	2024

00710G Mission Skills Temporary Classroom Trailers

Labor	0	6	0	0
Non-Labor	0	302	0	0
NSE	0	0	0	0
Total	0	308	0	0
FTE	0.0	0.1	0.0	0.0

00710H Mission Skills Training Building Expansion

Labor	0	24	51	51
Non-Labor	0	781	10,381	10,172
NSE	0	0	0	0
Total	0	805	10,432	10,223
FTE	0.0	0.2	0.4	0.4

Note: Totals may include rounding differences.

Beginning of Workpaper Group
00710A - Chula Vista Yard Security Improvements

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00710.0
 Category: H. Business Unit Expansion
 Category-Sub: 1. Business Unit Expansion
 Workpaper Group: 00710A - Chula Vista Yard Security Improvements

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
	Years								
Labor	Zero-Based	0	0	0	0	0	0	20	88
Non-Labor	Zero-Based	0	0	0	0	0	0	980	4,294
NSE	Zero-Based	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	1,000	4,382
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6

Business Purpose:

The purpose of this project is to increase Logistics storage capacity as required to meet the growing inventory needs of Construction & Operations Centers and major projects. The area improved by this project will allow for the storage of large items such as overhead transformers, single phase and three phase pad mount transformers, overhead and underground switches, multiple sizes of cable reels and other large materials that can no longer be absorbed in the space available at company C&O Centers.

Physical Description:

The project scope will include the design, permitting and construction of a new wrought iron security fence, concrete entry driveway aprons, controlled motorized gate access, surveillance equipment, site lighting, office trailer on concrete pad, and site grading with gravel overlay.

Project Justification:

Besides providing relief to Construction & Operations center storage yards, the project will enable consolidation of materials stored disparately across multiple locations, enhancing the efficiency of managing these item, and facilitating availability and readiness in supporting the needs of construction and maintenance crews.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00710.0
Category: H. Business Unit Expansion
Category-Sub: 1. Business Unit Expansion
Workpaper Group: 00710A - Chula Vista Yard Security Improvements

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00710.0
 Category: H. Business Unit Expansion
 Category-Sub: 1. Business Unit Expansion
 Workpaper Group: 00710A - Chula Vista Yard Security Improvements
 Workpaper Detail: 00710A.001 - 2020-000050 - Chula Vista Yard Security Improvements
 In-Service Date: 10/31/2024

Description:

Budget Code 710 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		0	20	88
Non-Labor		0	980	4,294
NSE		0	0	0
	Total	0	1,000	4,382
FTE		0.0	0.2	0.6

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00710A

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

20-000050 Chula Vista Security Project
Pre-Authorization Scoping Estimate

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	65,000	1.00	65,000
Civil Engineering	272,000	1.00	272,000
Electrical Engineering -	50,000	1.00	50,000
Specialty Consulting Services - THINKBOX	50,000	1.00	50,000
Geotechnical Engineering	15,000	1.00	15,000
Reprographics	5,000	1.00	5,000
Structural Engineering	10,000	1.00	10,000
Permitting/Planning/Inspections			
Plan Checks & Permits	80,000	1.00	80,000
Testing & Inspections	75,000	1.00	75,000
Construction			
Construction Services	2,167,391	1.00	2,167,391
LV Cabling for Security	561,000	1.00	561,000
Security & Surveillance (access control / Surveillance)	1,023,000	1.00	1,023,000
Trailers	65,000	1.00	65,000
Tenant Improvements			
Furniture	35,000	1.00	35,000
Signage (Interior)	15,000	1.00	15,000
Environmental/Safety Services			
Soil Sampling/Analysis	20,000	1.00	20,000
Paleontologist	15,000	1.00	15,000
Contaminated Soil Removal	30,000	1.00	30,000
Miscellaneous			
Subtotal			4,553,391
Contingency @ 10%			455,339
Construction Cost Totals			5,008,730
Project Management Labor			342,927
Internal Support Labor			30,343
PM, Labor Cost Totals			373,270
Project Total			5,382,000
Project Management Labor			
Program Management (Company) Bob Vorraso, Linda Jk	85	284.59	24,190
Project Analyst (Company) Chris Chambers	75	284.59	21,344
Facilities Specialist (Company) Romell Apilado	55	284.59	15,652
Project Associate (Company) Perla Anaya	55	284.59	15,652
Project Management (Outside Labor)			204,903
Project Coordination (Outside Labor) K Zuniga, S Zabalk	75	569.17	42,688
Document Control (Outside Labor) Lynn Morgan	65	284.59	18,498
Internal Support Labor			
Facility Mgr. (Company)	65	152.50	9,913
IT Project Mgr. (Company)	125	100.00	12,500
Environmental Site Rep. (Company)	65	61.00	3,965
Safety Site Rep. (Company)	65	61.00	3,965
Subtotal			373,270

Beginning of Workpaper Group
00710B - Kearny C&O Master Plan Ph 1

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00710.0
 Category: H. Business Unit Expansion
 Category-Sub: 1. Business Unit Expansion
 Workpaper Group: 00710B - Kearny C&O Master Plan Ph 1

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	23	130	20
Non-Labor	Zero-Based	0	0	0	0	0	1,110	6,372	980
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	1,133	6,502	1,000
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.2	1.0	0.2

Business Purpose:

SDG&E's relocation and expansion of its existing substation on its Kearny Construction & Operations (C&O) property, coupled with the decommissioning of an onsite peaker plant, creates an opportunity to optimize existing operations on the site, accommodate future growth, consolidate employees from other locations and improve traffic circulation. The business purpose of this phase of the Kearny Master Plan development involves wholesale renovations to the southeastern-most and northwestern-most corners of the Kearny C&O property.

Physical Description:

The scope included in Phase 1 will include the construction of new paving and surface parking improvements in the Southeast corner, as well as improvements to the Northwest corner including a guard station, 4-bay condor truck canopy, Fleet heavy vehicle parking and a climbing pit for onsite training. Scope in the Northwest corner will also reserve and temporarily improve space for a future hydrogen fueling station.

Project Justification:

The various improvements to be made to these regions will improve undeveloped area vacated by the relocated substation and decommissioned peaker plant, supplementing current Fleet and Operations core functions, and providing greater flexibility for parking and large fleet vehicle maintenance and storage needs. In addition to providing additional surface-grade parking stalls at both areas, this first phase of the overall development will increase site security around the Northeast corner of the property, including a new entry with guard station and upgraded security fencing.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00710.0
Category: H. Business Unit Expansion
Category-Sub: 1. Business Unit Expansion
Workpaper Group: 00710B - Kearny C&O Master Plan Ph 1

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00710.0
 Category: H. Business Unit Expansion
 Category-Sub: 1. Business Unit Expansion
 Workpaper Group: 00710B - Kearny C&O Master Plan Ph 1
 Workpaper Detail: 00710B.001 - 2017-000155 - Kearny Master Plan - Ph1
 In-Service Date: 03/31/2024

Description:

Budget Code 710 - Zero Based Project Estimate

Forecast In 2021 \$(000)			
Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor	23	130	20
Non-Labor	1,110	6,372	980
NSE	0	0	0
Total	<u>1,133</u>	<u>6,502</u>	<u>1,000</u>
FTE	0.2	1.0	0.2

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00710B

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

2017-000155 Kearny Master Plan - Phase 1a & 1b
Pre-Authorized Scoping Estimate

	CAPITAL		
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	258,448	1.00	258,448
Master Planning	148,120	1.00	148,120
Permitting/Planning/Inspections			
Plan Checks & Permits	127,685	1.00	127,685
Testing & Inspections	150,000	1.00	150,000
Construction			
Construction Services	802,000	1.00	802,000
Construction	3,586,000	1.00	3,586,000
Construction	1,317,617	1.00	1,317,617
Site Lighting - Allowance	200,000	1.00	200,000
Enviromental & Safety Services			
Soil Sampling/Analysis	85,123	1.00	85,123
Removal			
Demolition & Removals	120,000	1.00	120,000
Real Estate & Planning			
Signage (Exterior)	20,000	1.00	20,000
IT, Audio Visual & Security			
IT Equipment	350,000	1.00	350,000
Subtotal			7,164,993
Contingency @ 20%			1,432,999
Construction Cost Totals			8,597,992
Company CPM Labor			63,934
Company Support Labor			24,245
Contracted Labor			226,524
PM, Labor Cost Totals			314,703

Project Total	8,912,695
----------------------	------------------

	CAPITAL		
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	220.46	18,739
Project Analyst (Company)	75	220.46	16,535
Business Analyst (Company)	75	220.46	16,535
Facilities Specialist (Company)	55	220.46	12,125
Company Support Labor			
Facility Mgr. (Company)	65	365.00	23,725
Environmental Site Rep. (Company)	65	4.00	260
Safety Site Rep. (Company)	65	4.00	260
Contracted Labor			
Project Management (Outside Labor)			179,125
Project Site Safety (Outside Labor)	75	440.92	33,069
Document Control (Outside Labor)	65	220.46	14,330
Subtotal			314,703

Beginning of Workpaper Group
00710C - Kearny Master Plan Phase 2

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00710.0
 Category: H. Business Unit Expansion
 Category-Sub: 1. Business Unit Expansion
 Workpaper Group: 00710C - Kearny Master Plan Phase 2

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Labor	Zero-Based	0	0	0	0	0	5	50	381
Non-Labor	Zero-Based	0	0	0	0	0	245	2,450	18,645
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	250	2,500	19,026
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.4	2.0

Business Purpose:

SDG&E's relocation and expansion of its existing substation on its Kearny Construction & Operations property, coupled with the decommissioning of an onsite peaker plant, creates an opportunity to optimize existing operations on the site, accommodate future growth, consolidate employees from other locations and improve traffic circulation. The business purpose of this phase of the Kearny Master Plan development involves the the design and construction of new warehouse facilities and the demoliton of aged, specialized lab and storage buildings within the center third of the property.

Physical Description:

The scope included in Phase 2 will include the construction of two new warehouse structures for Transmission Construction & Maintenance (TCM), and single warehouse facilities for each of the Substation Construction & Maintenance (SCM) and System Protection Maintence (SPM) groups. Due to quality control requirements for stored materials and equipment, one TCM warehouse will operate with conditioned air. The project will also demolish the former PET Lab facility, the function of which has been relocated to the Greencraig facility, and the aged, spatially inflexible Dance Hall storage building.

Project Justification:

The purpose of the project is to increase interior storage capacity and concurrently create conditioned interior storage capacity through the design and construction of new warehouse structures. The project will also enable continuation of subsequent Master Plan phases involving new construction through the demolition of aged and operationally inflexible existing structures.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00710.0
Category: H. Business Unit Expansion
Category-Sub: 1. Business Unit Expansion
Workpaper Group: 00710C - Kearny Master Plan Phase 2

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00710.0
 Category: H. Business Unit Expansion
 Category-Sub: 1. Business Unit Expansion
 Workpaper Group: 00710C - Kearny Master Plan Phase 2
 Workpaper Detail: 00710C.001 - 2013-001193 - Kearny Master Plan PH2
 In-Service Date: 11/30/2024

Description:

Budget Code 710 - Zero Based Project Estimate

Forecast In 2021 \$(000)			
Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor	5	50	381
Non-Labor	245	2,450	18,645
NSE	0	0	0
Total	<u>250</u>	<u>2,500</u>	<u>19,026</u>
FTE	0.1	0.4	2.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00710C

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Kearny Master Plan Phase 2
Pre-Authorization Scoping Estimate

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	750,000	1.00	750,000
Geotechnical Engineering	85,000	1.00	85,000
Pre-Construction Services	175,000	1.00	175,000
Permitting/Planning/Inspections			
Plan Checks & Permits	370,000	1.00	370,000
Testing & Inspections	120,000	1.00	120,000
Construction			
Construction Services	14,690,864	1.00	14,690,864
Construction	1,100,000	1.00	1,100,000
Site Remediation (Unplanned)	250,000	1.00	250,000
Environmental & Safety Services			
Soil Sampling/Analysis	70,000	1.00	70,000
Removal			
Demolition & Removals	150,000	1.00	150,000
Real Estate & Planning			
Furniture	1,125,000	1.00	1,125,000
IT, Audio Visual & Security			
IT Equipment	100,000	1.00	100,000
Audio Visual Equipment	225,000	1.00	225,000
Subtotal			19,210,864
Contingency @ 10%			1,921,086
Construction Cost Totals			21,131,950
Company CPM Labor			171,420
Company Support Labor			8,353
Contracted Labor			463,277
PM, Labor Cost Totals			643,050

Project Total	21,775,000
----------------------	-------------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	591.10	50,244
Project Analyst (Company)	75	591.10	44,333
Business Analyst (Company)	75	591.10	44,333
Facilities Specialist (Company)	55	591.10	32,511
Company Support Labor			
Facility Mgr. (Company)	65	120.50	7,833
Environmental Site Rep. (Company)	65	4.00	260
Safety Site Rep. (Company)	65	4.00	260
Contracted Labor			
Project Management (Outside Labor)			336,190
Project Site Safety (Outside Labor)	75	1,182.21	88,666
Document Control (Outside Labor)	65	591.10	38,422
Subtotal			643,050

Beginning of Workpaper Group
00710D - Energy Innovation Center Decommissioning

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00710.0
 Category: H. Business Unit Expansion
 Category-Sub: 1. Business Unit Expansion
 Workpaper Group: 00710D - Energy Innovation Center Decommissioning

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	16	0	0
Non-Labor	Zero-Based	0	0	0	0	0	734	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	750	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

Business Purpose:

SDG&E will be exiting the lease for the building that houses the Energy Innovation Center at the lease term expiration date in 2022. The conditions of the lease require the removal of any utility trade fixtures or non-customary appurtenances in the parking lot that were constructed or installed by SDG&E during the lease tenure.

Physical Description:

In accordance with the lease agreement, SDG&E will be required to remove certain leasehold improvements such as the Test Kitchen equipment and other items that can be removed without causing material damage to the premises. The removal of atypical infrastructure, equipment and structures and other miscellaneous improvements made to the parking area such as solar canopies, walkways, landscaping and other unique hardscape features.

Project Justification:

Decommissioning the facility per the lease terms for restoration of the premises is a contractual obligation of exiting the lease.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00710.0
Category: H. Business Unit Expansion
Category-Sub: 1. Business Unit Expansion
Workpaper Group: 00710D - Energy Innovation Center Decommissioning

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00710.0
 Category: H. Business Unit Expansion
 Category-Sub: 1. Business Unit Expansion
 Workpaper Group: 00710D - Energy Innovation Center Decommissioning
 Workpaper Detail: 00710D.001 - 2021-000079 - EIC Decommissioning
 In-Service Date: 11/30/2022

Description:

Budget Code 710 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		16	0	0
Non-Labor		734	0	0
NSE		0	0	0
	Total	750	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00710D

2021-000079 Energy Innovation Center Decommissioning
Pre-Authorization Scoping Estimate

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
Construction			
Construction Services	601,280	1.00	601,280
Real Estate & Planning			
Move Management	5,000	1.00	5,000
Move Implementation	35,000	1.00	35,000
IT, Audio Visual & Security			
IT Consulting Services	15,000	1.00	15,000
Subtotal			656,280
Contingency @ 10%			65,628
Construction Cost Totals			721,908
Company CPM Labor			13,981
Company Support Labor			9,770
Contracted Labor			4,342
PM, Labor Cost Totals			28,092

Project Total	750,000
----------------------	----------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
Company CPM Labor			
Program Management (<i>Company</i>)	85	20.19	1,716
Design Project Management (<i>Company</i>)	65	125.00	8,125
Project Analyst (<i>Company</i>)	75	20.19	1,514
Business Analyst (<i>Company</i>)	75	20.19	1,514
Facilities Specialist (<i>Company</i>)	55	20.19	1,111
Company Support Labor			
Facility Mgr. (<i>Company</i>)	65	16.70	1,086
Environmental Site Rep. (<i>Company</i>)	65	66.80	4,342
Safety Site Rep. (<i>Company</i>)	65	66.80	4,342
Contracted Labor			
Project Coordination (<i>Outside Labor</i>)	75	40.39	3,029
Document Control (<i>Outside Labor</i>)	65	20.19	1,313
Subtotal			28,092

Beginning of Workpaper Group
00710F - Miramar Site Improvements (Post NRG)

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00710.0
 Category: H. Business Unit Expansion
 Category-Sub: 1. Business Unit Expansion
 Workpaper Group: 00710F - Miramar Site Improvements (Post NRG)

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
	Years								
Labor	Zero-Based	0	0	0	0	0	0	60	0
Non-Labor	Zero-Based	0	0	0	0	0	0	3,000	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	3,060	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0

Business Purpose:

The decommissioning of the NRG peaker plant created has created an opportunity to expand the property's exterior storage and fleet parking capacity.

Physical Description:

The project will recapture and improve the space previously occupied by the peaker plant and provide site improvements that will deliver additional exterior laydown storage space, vertical storage racking and additional parking. The scope primarily includes the removal of existing gravel surfacing, grading and compaction of underlying soil, placement of concrete paving, stormwater drainage conveyances, steel storage racking to support Logistics and striping for Fleet vehicle parking.

Project Justification:

This project will improve and make beneficial use of undeveloped area vacated by a decommissioned peaker plant on the property. The completion of this project will increase exterior storage area and parking capacity necessary to sustain onsite operations and the support they provide to utility construction and maintenance crews.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00710.0
Category: H. Business Unit Expansion
Category-Sub: 1. Business Unit Expansion
Workpaper Group: 00710F - Miramar Site Improvements (Post NRG)

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
 2024 GRC - REVISED
 Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00710.0
 Category: H. Business Unit Expansion
 Category-Sub: 1. Business Unit Expansion
 Workpaper Group: 00710F - Miramar Site Improvements (Post NRG)
 Workpaper Detail: 00710F.001 - 2020-000117 - Miramar Site Improvements (Post NRG)
 In-Service Date: 12/31/2023
 Description:

Budget Code 710 - Zero Based Project Estimate

Forecast In 2021 \$(000)			
Years	2022	2023	2024
Labor	0	60	0
Non-Labor	0	3,000	0
NSE	0	0	0
Total	0	3,060	0
FTE	0.0	0.5	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00710F

20-117 Miramar Site Improvements - Post NRG Pre-Authorization Scoping Estimate

Item Description / Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural Services	128,580	1.00	128,580
Geotechnical Engineering	11,086	1.00	11,086
Permitting/Planning/Inspections			
Plan Checks & Permits	30,000	1.00	30,000
Testing & Inspections	15,000	1.00	15,000
Construction			
Construction Services	2,051,745	1.10	2,256,919
Tenant Improvements			
Signage	5,000	1.00	5,000
Subtotal			2,446,585
Contingency @ 20%			489,317
Construction Cost Totals			2,935,902
Company CPM Labor			23,006
Company Support Labor			16,556
Contracted Labor			224,536
PM, Labor Cost Totals			264,098

Project Total	3,200,000
----------------------	------------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
Company CPM Labor			
Program Management (<i>Company</i>)	85	53.78	4,571
Planning & Design Management (<i>Company</i>)	65	114.00	7,410
Project Analyst (<i>Company</i>)	75	53.78	4,034
Business Analyst (<i>Company</i>)	75	53.78	4,034
Facilities Specialist (<i>Company</i>)	55	53.78	2,958
Company Support Labor			
Facility Mgr. (<i>Company</i>)	65	141.50	9,198
Environmental Site Rep. (<i>Company</i>)	65	56.60	3,679
Safety Site Rep. (<i>Company</i>)	65	56.60	3,679
Contracted Labor			
Project Management (<i>Outside Labor</i>)			212,973
Project Coordination (<i>Outside Labor</i>)	75	107.56	8,067
Document Control (<i>Outside Labor</i>)	65	53.78	3,496
Subtotal			264,098

Beginning of Workpaper Group
00710G - Mission Skills Temporary Classroom Trailers

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00710.0
 Category: H. Business Unit Expansion
 Category-Sub: 1. Business Unit Expansion
 Workpaper Group: 00710G - Mission Skills Temporary Classroom Trailers

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	6	0	0
Non-Labor	Zero-Based	0	0	0	0	0	302	0	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	308	0	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

Business Purpose:

Due to the pandemic, the best health and safety practice of keeping students spaced 6' apart during classroom training has driven the need for additional classroom space at Skills Training .

Physical Description:

The scope of this project will include the purchase and placement of (2) 24'x60' trailers, ADA compliant ramps, electrical power service, audio visual equipment and classroom standard furniture.

Project Justification:

The need to maintain safe distance of 6' between individuals, as recommended by health agencies during the pandemic, has reduced student training throughput capacity at the Skills Training facility . In order to maintain current curriculums and necessary worker advancement through training programs, the addition of new trailers is essential for the additional classroom space necessary to accodate safe student spacing requirements.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00710.0
Category: H. Business Unit Expansion
Category-Sub: 1. Business Unit Expansion
Workpaper Group: 00710G - Mission Skills Temporary Classroom Trailers

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00710.0
 Category: H. Business Unit Expansion
 Category-Sub: 1. Business Unit Expansion
 Workpaper Group: 00710G - Mission Skills Temporary Classroom Trailers
 Workpaper Detail: 00710G.001 - 2020-000071 - Mission Skills Temporary Classroom Trailers
 In-Service Date: 06/30/2022

Description:

Budget Code 710 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
Years	<u>2022</u>	<u>2023</u>	<u>2024</u>	
Labor	6	0	0	
Non-Labor	302	0	0	
NSE	0	0	0	
Total	<u>308</u>	<u>0</u>	<u>0</u>	
FTE	0.1	0.0	0.0	

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00710G

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

**2020-000071 Mission Skills Temp Classroom Trailers
Authorized Project Budget**

Item Description/ or Phase of Work	CAPITAL		
	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	37,650	1.00	37,650
Reprographics	500	1.00	500
Permitting/Planning/Inspections			
Plan Checks & Permits	15,000	1.00	15,000
Construction			
Construction	82,262	1.10	90,488
Low Voltage Cabling	50,364	1.00	50,364
Tenant Improvements			
Trailers	522,887	1.00	522,887
Environmental & Safety Services			
Soil Sampling/Analysis	2,999	1.00	2,999
Removal			
Misc HazMat Disposal	10,000	1.00	10,000
Real Estate & Planning			
Furniture	112,550	1.00	112,550
IT, Audio Visual & Security			
IT Consulting Services	1,310	1.00	1,310
IT Equipment	24,011	1.00	24,011
Audio Visual Equipment	351	1.00	351
Subtotal			868,110
Contingency @ 20%			173,622
Construction Cost Totals			1,041,732
Company CPM Labor			13,394
Company Support Labor			31,160
Contracted Labor			53,271
PM, Labor Cost Totals			97,825

Project Total	1,139,557
----------------------	------------------

Item Description/ or Phase of Work	CAPITAL		
	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	19.29	1,640
Planning & Design Management (Company)	65	120.00	7,800
Project Analyst (Company)	75	19.29	1,447
Business Analyst (Company)	75	19.29	1,447
Facilities Specialist (Company)	55	19.29	1,061
Company Support Labor			
Facility Mgr. (Company)	100	213.50	21,350
Move Coordinator (Company)	65	12.00	780
IT Project Mgr. (Company)	65	20.00	1,300
Environmental Site Rep. (Company)	65	42.00	2,730
Safety Site Rep. (Company)	1	5,000.00	5,000
Contracted Labor			
Project Management (Outside Labor)	5.00%	868,110.40	43,406
Project Coordination (Outside Labor)	1	7,678.00	7,678
Document Control (Outside Labor)	1	2,187.00	2,187
Subtotal			97,825

Beginning of Workpaper Group
00710H - Mission Skills Training Building Expansion

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00710.0
 Category: H. Business Unit Expansion
 Category-Sub: 1. Business Unit Expansion
 Workpaper Group: 00710H - Mission Skills Training Building Expansion

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	24	51	51
Non-Labor	Zero-Based	0	0	0	0	0	781	10,381	10,172
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	805	10,432	10,223
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.4

Business Purpose:

This project will expand the existing footprint at the Skills Training facility through the construction of a new classroom training building. The current facility is at maximum capacity and cannot meet the needs of staff driven employee growth (15-20 new FTEs planned in the next 3 years) or the increased training demands driven by additional compliance , wildfire mitigation and new equipment technology requirements.

Physical Description:

The project scope includes the construction of an approximate 16,000 sf new 2-story building that will include new classrooms, additional office space for planned additions to the FTE instructor staff, an improved strength and conditioning center, virtual reality training simulators and expanded locker and shower rooms to support hands-on training at the facility .

Project Justification:

The Skills Training facility is at maximum capacity and needs more classroom space , office space, technological modernization and locker/shower room capacity to support an expanding curriculum, instructor staff and student throughput necessary to keep pace with new compliance and safety requirements, and maintain satisfactory customer service levels.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 00710.0
Category: H. Business Unit Expansion
Category-Sub: 1. Business Unit Expansion
Workpaper Group: 00710H - Mission Skills Training Building Expansion

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 00710.0
 Category: H. Business Unit Expansion
 Category-Sub: 1. Business Unit Expansion
 Workpaper Group: 00710H - Mission Skills Training Building Expansion
 Workpaper Detail: 00710H.001 - 2011-000179 - Mission Skills Training Building Expansion
 In-Service Date: 07/31/2024

Description:

Budget Code 710 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		24	51	51
Non-Labor		781	10,381	10,172
NSE		0	0	0
	Total	<u>805</u>	<u>10,432</u>	<u>10,223</u>
FTE		0.2	0.4	0.4

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 00710H

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

2011-000179 Mission Skills Training BLDG
Pre-Authorization Scoping Estimate

		CAPITAL	
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	1,025,078	1.00	1,025,078
Architectural Services	78,055	1.00	78,055
Specialty Consulting Services	15,000	1.00	15,000
Geotechnical Engineering	15,000	1.00	15,000
Reprographics	5,000	1.00	5,000
Pre-Construction Services	25,000	1.00	25,000
Permitting/Planning/Inspections			
Plan Checks & Permits	200,000	1.00	200,000
Testing & Inspections	85,000	1.00	85,000
Construction			
Construction Services	13,797,461	1.00	13,797,461
Low Voltage Cabling	250,000	1.00	250,000
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	2,500	1.00	2,500
Soil Sampling/Analysis	5,000	1.00	5,000
SWPPP Preparation	12,000	1.00	12,000
SWPPP Monitoring	15,000	1.00	15,000
Paleontologist	6,500	1.00	6,500
Mitigation Monitoring	5,000	1.00	5,000
Removal			
Misc HazMat Disposal	10,000	1.00	10,000
Real Estate & Planning			
Furniture	676,000	1.10	743,600
Moving Costs	40,000	1.00	40,000
Move Implementation	50,000	1.00	50,000
Signage (Interior)	15,000	1.00	15,000
Signage (Exterior)	10,000	1.00	10,000
IT, Audio Visual & Security			
IT Consulting Services	175,000	1.00	175,000
IT Equipment	200,000	1.00	200,000
Audio Visual Equipment	250,000	1.00	250,000
Security & Surveillance	140,000	1.00	140,000
Subtotal			17,175,194
Contingency @ 20%			3,435,039
Construction Cost Totals			20,610,233
Company CPM Labor			118,758
Company Support Labor			44,402
Contracted Labor			686,954
PM, Labor Cost Totals			850,113
Project Total			21,460,346
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	409.51	34,808
Project Analyst (Company)	75	409.51	30,713
Business Analyst (Company)	75	409.51	30,713
Facilities Specialist (Company)	55	409.51	22,523
Company Support Labor			
Facility Mgr. (Company)	65	379.50	24,668
Environmental Site Rep. (Company)	65	151.80	9,867
Safety Site Rep. (Company)	65	151.80	9,867
Contracted Labor			
Project Management (Outside Labor)			598,909
Project Site Safety (Outside Labor)	75	819.02	61,427
Document Control (Outside Labor)	65	409.51	26,618
Subtotal			850,113

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Category: I. Clean Transportation Infrastructure
 Workpaper: VARIOUS

Summary for Category: I. Clean Transportation Infrastructure

	In 2021\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Labor	9	30	571	613
Non-Labor	585	1,486	3,497	11,614
NSE	0	0	0	0
Total	594	1,516	4,068	12,227
FTE	0.1	0.2	4.5	4.8

087290 Clean Transportation Infrastructure

Labor	9	30	71	113
Non-Labor	585	1,486	3,497	5,527
NSE	0	0	0	0
Total	594	1,516	3,568	5,640
FTE	0.1	0.2	0.5	0.8

08729A Fleet Hydrogen Fueling

Labor	0	0	500	500
Non-Labor	0	0	0	6,087
NSE	0	0	0	0
Total	0	0	500	6,587
FTE	0.0	0.0	4.0	4.0

Note: Totals may include rounding differences.

Beginning of Workpaper Group
087290 - Clean Transportation Infrastructure

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 08729.0
 Category: I. Clean Transportation Infrastructure
 Category-Sub: 1. Clean Transportation Infrastructure
 Workpaper Group: 087290 - Clean Transportation Infrastructure

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	33	14	89	33	9	30	71	113
Non-Labor	Zero-Based	3,018	1,574	4,735	1,402	585	1,486	3,497	5,527
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		3,052	1,587	4,823	1,435	594	1,516	3,568	5,640
FTE	Zero-Based	0.3	0.1	0.8	0.2	0.1	0.2	0.5	0.8

Business Purpose:

The program objective is to promote and model the reduction of carbon emissions through the conversion of fossil-fuel powered Fleet vehicles to alternative fuel vehicles, and encourage employees to consider the purchase of personal electric vehicles by providing convenient charging infrastructure apparatus at company facilities (energy cost at employee expense).

Physical Description:

Implement program-based installations of electric vehicle chargers and plug-in receptacles at occupied facilities across the SDG&E territory, both fee owned and leased, for charging of fleet and employee electric and hybrid vehicles (energy cost at employee expense).

Project Justification:

In the spirit of its environmental stewardship values and support of the State's zero -emission vehicle goals, the company seeks to minimize negative impact to the environment by reducing carbon emissions from its own vehicle fleet and also that of its employees. This blanket will cover the expected growth in both Fleet and employee owned EV's at company locations.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 08729.0
Category: I. Clean Transportation Infrastructure
Category-Sub: 1. Clean Transportation Infrastructure
Workpaper Group: 087290 - Clean Transportation Infrastructure

Forecast Methodology:

Labor - Zero-Based

Zero Based

Non-Labor - Zero-Based

Zero Based

NSE - Zero-Based

N/A

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 08729.0
 Category: I. Clean Transportation Infrastructure
 Category-Sub: 1. Clean Transportation Infrastructure
 Workpaper Group: 087290 - Clean Transportation Infrastructure

Summary of Adjustments to Forecast

In 2021 \$ (000)										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	Zero-Based	30	71	113	0	0	0	30	71	113
Non-Labor	Zero-Based	1,486	3,497	5,527	0	0	0	1,486	3,497	5,527
NSE	Zero-Based	0	0	0	0	0	0	0	0	0
Total		1,516	3,568	5,640	0	0	0	1,516	3,568	5,640
FTE	Zero-Based	0.2	0.5	0.8	0.0	0.0	0.0	0.2	0.5	0.8

Forecast Adjustment Details

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
2022 Total	0	0	0	0	0.0
2023 Total	0	0	0	0	0.0
2024 Total	0	0	0	0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 08729.0
Category: I. Clean Transportation Infrastructure
Category-Sub: 1. Clean Transportation Infrastructure
Workpaper Group: 087290 - Clean Transportation Infrastructure

Determination of Adjusted-Recorded:

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	24	10	69	27	7
Non-Labor	2,475	1,357	4,246	1,313	585
NSE	0	0	0	0	0
Total	2,499	1,367	4,315	1,340	592
FTE	0.3	0.1	0.7	0.2	0.1
Adjustments (Nominal \$)**					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	24	10	69	27	7
Non-Labor	2,475	1,357	4,246	1,313	585
NSE	0	0	0	0	0
Total	2,499	1,367	4,315	1,340	592
FTE	0.3	0.1	0.7	0.2	0.1
Vacation & Sick (Nominal \$)					
Labor	4	2	10	4	1
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	4	2	10	4	1
FTE	0.0	0.0	0.1	0.0	0.0
Escalation to 2021\$					
Labor	6	2	9	2	0
Non-Labor	543	217	489	89	0
NSE	0	0	0	0	0
Total	549	219	498	91	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2021\$)					
Labor	33	14	89	33	9
Non-Labor	3,018	1,574	4,735	1,402	585
NSE	0	0	0	0	0
Total	3,052	1,587	4,823	1,435	594
FTE	0.3	0.1	0.8	0.2	0.1

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 08729.0
 Category: I. Clean Transportation Infrastructure
 Category-Sub: 1. Clean Transportation Infrastructure
 Workpaper Group: 087290 - Clean Transportation Infrastructure

Summary of Adjustments to Recorded:

In Nominal \$(000)					
Years	2017	2018	2019	2020	2021
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
-------------	--------------	-------------	------------	--------------	------------

Note: Totals may include rounding differences.

**Beginning of Workpaper Sub Details for
Workpaper Group 087290**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 08729.0
 Category: I. Clean Transportation Infrastructure
 Category-Sub: 1. Clean Transportation Infrastructure
 Workpaper Group: 087290 - Clean Transportation Infrastructure
 Workpaper Detail: 087290.001 - Energy Efficiency Program
 In-Service Date: Not Applicable

Description:

TBD

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		30	71	113
Non-Labor		1,486	3,497	5,527
NSE		0	0	0
	Total	1,516	3,568	5,640
FTE		0.2	0.5	0.8

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 087290

San Diego Gas & Electric Company
 2024 GRC - REVISED
 Capital Workpapers

**2021-000031 Energy Efficiency Blanket Forecast
 2022-2024**

Level 2 Charger Estimate	Additions		
	2022	2023	2024
Employee Use Chargers	9	54	108
Fleet Use Chargers	8	42	41
EV Charger Installations by Year	17	96	149
	<i>2.5% escalation</i>	<i>35,528 82,000</i>	<i>36,416 84,050</i>
	<i>37,326 86,151</i>		
	Average Cost Each	2022	2023
Level 2 Chargers	\$ 34,661	\$ 532,917	\$ 3,404,897
DC Fast Chargers (2/yr)	\$ 80,000	\$ 164,000	\$ 168,100
New Installation Total Cost Estimate	\$ 696,917	\$ 3,572,997	\$ 5,640,621

*Assumes 2 DC fast chargers to be installed each year.

Proj_ID	Project Name	2022	2023	2024	2021-2024 Total
2021-000031	Energy Efficiency Program Blanket	700,000	3,568,000	5,640,000	9,908,000
2020-000110	Kearny Employee EV Charger Installation	610,000			610,000
2019-000043	OCCO Fleet EV Chargers Phase 2	206,000			206,000
Blanket Total		1,516,000	3,568,000	5,640,000	10,724,000

**Beginning of Workpaper Group
08729A - Fleet Hydrogen Fueling**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 08729.0
 Category: I. Clean Transportation Infrastructure
 Category-Sub: 1. Clean Transportation Infrastructure
 Workpaper Group: 08729A - Fleet Hydrogen Fueling

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	500	500	
Non-Labor	Zero-Based	0	0	0	0	0	0	6,087	
NSE	Zero-Based	0	0	0	0	0	0	0	
Total		0	0	0	0	0	500	6,587	
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	4.0	4.0	

Business Purpose:

To meet California's environmental goals and SDG&E's sustainability strategy, SDG&E plans to procure three heavy duty hydrogen fuel cell trucks. Hydrogen fueling in San Diego is very limited to one fueling station. SDGE is in the process of installing a small fueling station at its Palomar Energy Center to fuel three light duty hydrogen FCEVs. Neither location meets SDG&E's operational needs for our work trucks and the fueling pressure at Palomar is not compatible with heavy duty fueling.

Physical Description:

The project will install one dedicated electrolyzer, one hydrogen chilling and outdoor hydrogen dispenser, hydrogen storage, compression, piping, instrument air, and other required electrical equipment.

Project Justification:

In line with SDG&E's sustainability strategy, SDG&E is adopting both electric and hydrogen FCEV fleet vehicles to reduce its carbon footprint. In order to facilitate SDG&E's adoption of hydrogen vehicles, the company will need reliable fueling dedicated to fleet vehicles in a location that meets operational requirements.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 08729.0
Category: I. Clean Transportation Infrastructure
Category-Sub: 1. Clean Transportation Infrastructure
Workpaper Group: 08729A - Fleet Hydrogen Fueling

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

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

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 08729.0
 Category: I. Clean Transportation Infrastructure
 Category-Sub: 1. Clean Transportation Infrastructure
 Workpaper Group: 08729A - Fleet Hydrogen Fueling
 Workpaper Detail: 08729A.001 - Fleet Hydrogen Fueling
 In-Service Date: 10/31/2024

Description:

Budget Code 08729 Zero Based Project Estimate

Forecast In 2021 \$(000)			
Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor	0	500	500
Non-Labor	0	0	6,087
NSE	0	0	0
Total	<u>0</u>	<u>500</u>	<u>6,587</u>
FTE	0.0	4.0	4.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 08729A

TY2024 GRC FORECAST - DETAILS
 Fleet Hydrogen Fueling Pilot
 Work Paper 08729A

Existing Project	No	Refundable	No	RSAR Reportable	No
Overhead Pool	No	Collectible	No	Shareable Asset	No
Billed Capital	No	Routine	Yes	Cost of Removal %	every 4 mos

Oct-24 (If this is an ongoing blanket or program, please input "ongoing" and enter Yes in H3)

Sub-Budget Codes are normally 100% RAMP or Non-RAMP, these examples are illustrative only

Please Note. For Capital, these annual forecasts will need to be input into GRID on a monthly basis, by year, separately for Labor, Non-Labor and Non-Standard Escalation (NSE).

21269 - Advanced Energy Storage Program					2022			2023			2024			Comments	
Line Item	Unit Description	Labor/Non-Labor/NSE	RAMP/Non-RAMP	Unit Metric (ea./ft./mile)	# of units	Cost per unit*	Total cost	# of units	Cost per unit*	Total cost	# of units	Cost per unit*	Total cost		Total Cost
example	small wire cable	Non-Labor	RAMP	feet	1,000	\$ 1,500	\$ 1,500,000			\$ -			\$ -	\$ 1,500,000	
example	lines	Non-Labor	Non-RAMP	sq	100	\$ 1,000	\$ 100,000	200	\$ 1,000	\$ 200,000	250	\$ 1,000	\$ 250,000	\$ 550,000	
example	FTE's	Labor	Non-RAMP	hours	1.0	\$ 100,000	\$ 100,000	1.0	\$ 100,000	\$ 100,000	1.0	\$ 100,000	\$ 100,000	\$ 300,000	
example	Contractors	Non-Labor	RAMP	ea	-	\$ 100,000	\$ 500,000			\$ -			\$ -	\$ 500,000	
example	FTE's	Labor	RAMP	hours	1.0	\$ 100,000	\$ 100,000	1.0	\$ 100,000	\$ 100,000	1.0	\$ 100,000	\$ 100,000	\$ 300,000	
example	fiberglass poles	NSE	RAMP	poles	250	\$ 25,000	\$ 6,250,000	250	\$ 25,000	\$ 6,250,000	250	\$ 25,000	\$ 6,250,000	\$ 18,750,000	
1	Electrolyzer	Non-Labor	Non-RAMP	system	-	\$ -	\$ -			\$ -	2	\$ 500,000	\$ 1,000,000	\$ 1,000,000	Two C30 electrolyzer. Cost estimate based on Vendor.
2	Compressed hydrogen storage tank	Non-Labor	Non-RAMP	system	-	\$ -	\$ -			\$ -	4.0	\$ 50,000	\$ 200,000	\$ 200,000	Four storage tanks for 100 kg of H2 storage. Each storage is accounting for 25 kg. Cost estimate from Vendor.
3	Foundation and structure	Non-Labor	Non-RAMP	system	-	\$ -	\$ -			\$ -	1	\$ 150,000	\$ 150,000	\$ 150,000	
4	Compressor	Non-Labor	Non-RAMP	system	-	\$ -	\$ -			\$ -	1	\$ 500,000	\$ 500,000	\$ 500,000	
5	Chiller	Non-Labor	Non-RAMP	system	-	\$ -	\$ -			\$ -	2	\$ 50,000	\$ 100,000	\$ 100,000	
6	Dispenser	Non-Labor	Non-RAMP	system	-	\$ -	\$ -			\$ -	1	\$ 71,000	\$ 71,000	\$ 71,000	
7	Fueling Station	Non-Labor	Non-RAMP	system	-	\$ -	\$ -			\$ -	1	\$ 790,000	\$ 790,000	\$ 790,000	
8	Hydrogen storage (fueling station @ 450 bar)	Non-Labor	Non-RAMP	system	-	\$ -	\$ -			\$ -	1	\$ 35,000	\$ 35,000	\$ 35,000	
9	Piping	Non-Labor	Non-RAMP	feet	-	\$ -	\$ -			\$ -	1,500	\$ 35	\$ 92,500	\$ 92,500	
11	Structural work and foundation	Non-Labor	Non-RAMP	system	-	\$ -	\$ -			\$ -	1	\$ 100,000	\$ 100,000	\$ 100,000	
12	Electrical work	Non-Labor	Non-RAMP	system	-	\$ -	\$ -			\$ -	1	\$ 500,000	\$ 500,000	\$ 500,000	
13	Engineering, construction management and inspection, EPC fee	Non-Labor	Non-RAMP	system	-	\$ -	\$ -			\$ -	1	\$ 1,574,325	\$ 1,574,325	\$ 1,574,325	
14	Contingency	Non-Labor	Non-RAMP	system	-	\$ -	\$ -			\$ -	1	\$ 1,014,565	\$ 1,014,565	\$ 1,014,565	
15	FTE's	Labor	Non-RAMP	salary	-	\$ -	\$ -	4	\$ 125,000	\$ 500,000	4	\$ 125,000	\$ 500,000	\$ 1,000,000	
16						\$ -	\$ -			\$ -			\$ -	\$ -	

*Costs should be reported in direct costs only (no overheads)

Summary		Labor	RAMP											
		Non-Labor	RAMP											
		NSE	RAMP											
	Subtotal RAMP													
		Labor	Non-RAMP											
		Non-Labor	Non-RAMP											
		NSE	Non-RAMP											
	Subtotal Non-RAMP													
	Total Project Forecast													

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Category: J. Land Services Archibus System
 Workpaper: 137460

Summary for Category: J. Land Services Archibus System

	In 2021\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Labor	299	312	312	312
Non-Labor	1,361	1,188	1,188	1,188
NSE	0	0	0	0
Total	1,660	1,500	1,500	1,500
FTE	2.7	2.8	2.8	2.8

137460 LAND SERVICES ARCHIBUS SYSTEM

Labor	299	312	312	312
Non-Labor	1,361	1,188	1,188	1,188
NSE	0	0	0	0
Total	1,660	1,500	1,500	1,500
FTE	2.7	2.8	2.8	2.8

Note: Totals may include rounding differences.

Beginning of Workpaper Group
137460 - LAND SERVICES ARCHIBUS SYSTEM

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 13746.0
 Category: J. Land Services Archibus System
 Category-Sub: 1. Land Services Archibus System
 Workpaper Group: 137460 - LAND SERVICES ARCHIBUS SYSTEM

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	3-YR Average	119	302	286	352	299	312	312	312
Non-Labor	3-YR Average	1,870	1,634	1,133	1,070	1,361	1,188	1,188	1,188
NSE	3-YR Average	0	0	0	0	0	0	0	0
Total		1,989	1,936	1,420	1,422	1,660	1,500	1,500	1,500
FTE	3-YR Average	0.8	2.5	2.4	3.4	2.7	2.8	2.8	2.8

Business Purpose:

Archibus is an integrated work management system used by Real Estate & Facilities employees to capture support requests and manage real estate assets and facilities preventative maintenance. The Archibus Project automates and develops best management practices around several of the shared services support systems used within the Corporate Real Estate & Planning and Facilities departments.

Physical Description:

Project activities include the development of a Workspace Booking system and data modifications to support reintegration , environmental health and safety risk assessment, Capital Programs module development with workflow creation; Land Services module development with workflow creation; Document Library creation with full text search capabilities; site assessment and subsequent sensor install/integration for controls monitoring at unmanned sites.

Project Justification:

Integrated systems such as Archibus facilitate cost avoidance returns in the long term . Legacy systems need to be updated and processes need to be re-engineered to meet increased demand on existing and new information. Data increases knowledge, which drives efficiency and allows for better management of tools and resources . New systems enhance best practices and compliment “good work habits” which supports such change. Engineering new business tools and controls supports our customer needs, but we must also manage real property assets and commodities. The project’s primary focus on design and requirements was to support the processes of the Real Estate & Facilities staff, but also to share the new systems and relevant information with our customers. By creating systems that allow our customers access to the information empowers them to make more informed decisions and work at their own pace.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 13746.0
Category: J. Land Services Archibus System
Category-Sub: 1. Land Services Archibus System
Workpaper Group: 137460 - LAND SERVICES ARCHIBUS SYSTEM

Forecast Methodology:

Labor - 3-YR Average

3 Year Average

Non-Labor - 3-YR Average

3 Year Average

NSE - 3-YR Average

N/A

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 13746.0
 Category: J. Land Services Archibus System
 Category-Sub: 1. Land Services Archibus System
 Workpaper Group: 137460 - LAND SERVICES ARCHIBUS SYSTEM

Summary of Adjustments to Forecast

In 2021 \$ (000)										
Forecast Method		Base Forecast			Forecast Adjustments			Adjusted-Forecast		
Years		2022	2023	2024	2022	2023	2024	2022	2023	2024
Labor	3-YR Average	312	312	312	0	0	0	312	312	312
Non-Labor	3-YR Average	1,188	1,188	1,188	0	0	0	1,188	1,188	1,188
NSE	3-YR Average	0	0	0	0	0	0	0	0	0
Total		1,500	1,500	1,500	0	0	0	1,500	1,500	1,500
FTE	3-YR Average	2.8	2.8	2.8	0.0	0.0	0.0	2.8	2.8	2.8

Forecast Adjustment Details

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
2022 Total	0	0	0	0	0.0
2023 Total	0	0	0	0	0.0
2024 Total	0	0	0	0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 13746.0
 Category: J. Land Services Archibus System
 Category-Sub: 1. Land Services Archibus System
 Workpaper Group: 137460 - LAND SERVICES ARCHIBUS SYSTEM

Determination of Adjusted-Recorded:

	2017 (\$000)	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)
Recorded (Nominal \$)*					
Labor	85	226	225	288	260
Non-Labor	1,534	1,409	1,016	1,002	1,361
NSE	0	0	0	0	0
Total	1,618	1,635	1,241	1,291	1,621
FTE	0.7	2.1	2.1	2.9	2.3
Adjustments (Nominal \$)**					
Labor	0	0	0	0	0
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	0	0	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Nominal \$)					
Labor	85	226	225	288	260
Non-Labor	1,534	1,409	1,016	1,002	1,361
NSE	0	0	0	0	0
Total	1,618	1,635	1,241	1,291	1,621
FTE	0.7	2.1	2.1	2.9	2.3
Vacation & Sick (Nominal \$)					
Labor	13	34	32	41	39
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	13	34	32	41	39
FTE	0.1	0.4	0.3	0.5	0.4
Escalation to 2021\$					
Labor	21	42	30	22	0
Non-Labor	337	225	117	68	0
NSE	0	0	0	0	0
Total	358	267	147	90	0
FTE	0.0	0.0	0.0	0.0	0.0
Recorded-Adjusted (Constant 2021\$)					
Labor	119	302	286	352	299
Non-Labor	1,870	1,634	1,133	1,070	1,361
NSE	0	0	0	0	0
Total	1,989	1,936	1,420	1,422	1,660
FTE	0.8	2.5	2.4	3.4	2.7

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 13746.0
Category: J. Land Services Archibus System
Category-Sub: 1. Land Services Archibus System
Workpaper Group: 137460 - LAND SERVICES ARCHIBUS SYSTEM

Summary of Adjustments to Recorded:

		In Nominal \$(000)				
Years	2017	2018	2019	2020	2021	
Labor	0	0	0	0	0	
Non-Labor	0	0	0	0	0	
NSE	0	0	0	0	0	
Total	0	0	0	0	0	
FTE	0.0	0.0	0.0	0.0	0.0	

<u>Year</u>	<u>Labor</u>	<u>NLbr</u>	<u>NSE</u>	<u>Total</u>	<u>FTE</u>
-------------	--------------	-------------	------------	--------------	------------

Note: Totals may include rounding differences.

**Beginning of Workpaper Sub Details for
Workpaper Group 137460**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 13746.0
 Category: J. Land Services Archibus System
 Category-Sub: 1. Land Services Archibus System
 Workpaper Group: 137460 - LAND SERVICES ARCHIBUS SYSTEM
 Workpaper Detail: 137460.001 - Land Services Archibus System
 In-Service Date: Not Applicable

Description:

Forecast Based on 3 - Year Historical Average

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		312	312	312
Non-Labor		1,188	1,188	1,188
NSE		0	0	0
	Total	1,500	1,500	1,500
FTE		2.8	2.8	2.8

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Category: K. SDG&E Sustainability Program
Workpaper: VARIOUS

Summary for Category: K. SDG&E Sustainability Program

	In 2021\$ (000)			
	Adjusted-Recorded	Adjusted-Forecast		
	2021	2022	2023	2024
Labor	0	270	45	111
Non-Labor	0	13,247	2,213	5,452
NSE	0	0	0	0
Total	0	13,517	2,258	5,563
FTE	0.0	2.0	0.4	0.9

21757A SDG&E Sustainability Program

Labor	0	22	19	0
Non-Labor	0	1,098	939	0
NSE	0	0	0	0
Total	0	1,120	958	0
FTE	0.0	0.2	0.1	0.0

21757B SDG&E Sustainability Program

Labor	0	248	26	111
Non-Labor	0	12,149	1,274	5,452
NSE	0	0	0	0
Total	0	12,397	1,300	5,563
FTE	0.0	1.8	0.3	0.9

Note: Totals may include rounding differences.

**Beginning of Workpaper Group
21757A - SDG&E Sustainability Program**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 21757.0
 Category: K. SDG&E Sustainability Program
 Category-Sub: 1. SDG&E Sustainability Program
 Workpaper Group: 21757A - SDG&E Sustainability Program

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	22	19	0
Non-Labor	Zero-Based	0	0	0	0	0	1,098	939	0
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	1,120	958	0
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0

Business Purpose:

The Facilities Sustainability Program blanket budget will fund the furnishing and installation of photovoltaic (PV) energy generation systems costing less than \$1M at Company fee-owned properties. The program was initiated in support of the zero net energy goal that is part of the Facilities Sustainability Commitment through 2030. Through the implementation of photovoltaic energy systems, the program will seek to provide enough self-generated solar power to offset the total annual energy consumption of occupied facilities across the SDG&E real estate portfolio.

Physical Description:

The scope of each project under the SDG&E Sustainability Program will include the architectural design, engineering, LEED consulting (where applicable), permitting, purchasing and installation of roof, canopy or ground mounted PV systems. The following table summarizes projects that have been launched in 2021 and their budget requirements for 2021 and 2022. All are scheduled to be in-service in 2022 and provide a total generating capacity of roughly 1.4MW.

Project Justification:

The projects under the SDG&E Sustainability Program are being performed in order to meet SDG&E's sustainability commitments through the year 2030. Improving our building operations and consumption profile (carbon footprint) via sustainable applications is also required due to numerous legislative mandates and directives at all levels of government.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 21757.0
Category: K. SDG&E Sustainability Program
Category-Sub: 1. SDG&E Sustainability Program
Workpaper Group: 21757A - SDG&E Sustainability Program

Forecast Methodology:

Labor - Zero-Based

Zero Based

Non-Labor - Zero-Based

Zero Based

NSE - Zero-Based

N/A

**Beginning of Workpaper Sub Details for
Workpaper Group 21757A**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 21757.0
 Category: K. SDG&E Sustainability Program
 Category-Sub: 1. SDG&E Sustainability Program
 Workpaper Group: 21757A - SDG&E Sustainability Program
 Workpaper Detail: 21757A.001 - SDG&E Sustainability Program - Blanket - Non Shared Service Projects
 In-Service Date: Not Applicable

Description:

Budget Code 21757 Blanket - Non Shared Service Projects

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		7	19	0
Non-Labor		361	939	0
NSE		0	0	0
	Total	368	958	0
FTE		0.1	0.1	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 21757.0
 Category: K. SDG&E Sustainability Program
 Category-Sub: 1. SDG&E Sustainability Program
 Workpaper Group: 21757A - SDG&E Sustainability Program
 Workpaper Detail: 21757A.004 - SDG&E Sustainability Program - Blanket - Shared Service Projects
 In-Service Date: 09/30/2022

Description:

SDG&E Solar Energy Program Blanket 2021-000145 Beach Cities OGW Bldg Canopy Solar

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		15	0	0
Non-Labor		737	0	0
NSE		0	0	0
	Total	752	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 21757A

GRC Budget Code	Project Budget Code	GRC Workpaper	Proj_ID	Project Name	2022	2023	2024	2021-2024 Total
21757	21757 Solar Energy Program	21757B.01	TBD	Mission Control PV Installation - Ph1	0	-	2,500,000	2,500,000
21757	21757 Solar Energy Program	21757B.02	2021-000102	Metro PV Expansion - Phase 1	1,281,000	-	-	1,281,000
21757	21757 Solar Energy Program	21757B.03	2021-000089	Mountain Empire PV Installation - Phase 1	4,031,000	-	-	4,031,000
21757	21757 Solar Energy Program	21757B.04	2021-000084	Ramona PV Installation - Phase 1	4,207,000	1,000,000	-	5,207,000
21757	21757 Solar Energy Program	21757B.05	2021-000103	RBDC PV Expansion - Phase 1	-	300,000	3,063,000	3,363,000
21757	21757 Solar Energy Program	21757B.06	2021-000194	RBDC Rooftop PV Upgrade - Phase 1	1,585,000	-	-	1,585,000
21757	21757 Solar Energy Program	21757B.07	2021-000186	Beach Cities PV Installation - Phase 1	823,000	-	-	823,000
21757	21757 Solar Energy Program	21757B.08	2021-000115	Eastern PV Installation - Phase 1	470,000	-	-	470,000
Projects over \$1M Total					12,397,000	1,300,000	5,563,000	19,260,000

**Beginning of Workpaper Group
21757B - SDG&E Sustainability Program**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 21757.0
 Category: K. SDG&E Sustainability Program
 Category-Sub: 1. SDG&E Sustainability Program
 Workpaper Group: 21757B - SDG&E Sustainability Program

Summary of Results (Constant 2021 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast		
		2017	2018	2019	2020	2021	2022	2023	2024
Years									
Labor	Zero-Based	0	0	0	0	0	248	26	111
Non-Labor	Zero-Based	0	0	0	0	0	12,149	1,274	5,452
NSE	Zero-Based	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	12,397	1,300	5,563
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	1.8	0.3	0.9

Business Purpose:

The Facilities Sustainability Program blanket budget will fund the furnishing and installation of photovoltaic (PV) energy generation systems costing over \$1M at Company fee-owned properties. The program was initiated in support of the zero net energy goal that is part of the Facilities Sustainability Commitment through 2030. Through the implementation of photovoltaic energy

Physical Description:

The scope of each project under the SDG&E Sustainability Program will include the architectural design, engineering, LEED consulting (where applicable), permitting, purchasing and installation of roof, canopy or ground mounted PV systems. The following table summarizes projects that have been launched in 2021 and their budget requirements for 2021 and 2022. All are scheduled to be in-service in 2022 and provide a total generating capacity of roughly 1.4MW.

Project Justification:

The projects under the SDG&E Sustainability Program are being performed in order to meet SDG&E's sustainability commitments through the year 2030. Improving our building operations and consumption profile (carbon footprint) via sustainable applications is also required due to numerous legislative mandates and directives at all levels of government.

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
Witness: Richard D. Tattersall
Budget Code: 21757.0
Category: K. SDG&E Sustainability Program
Category-Sub: 1. SDG&E Sustainability Program
Workpaper Group: 21757B - SDG&E Sustainability Program

Forecast Methodology:

Labor - Zero-Based

Zero-Based

Non-Labor - Zero-Based

Zero-Based

NSE - Zero-Based

N/A

**Beginning of Workpaper Sub Details for
Workpaper Group 21757B**

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 21757.0
 Category: K. SDG&E Sustainability Program
 Category-Sub: 1. SDG&E Sustainability Program
 Workpaper Group: 21757B - SDG&E Sustainability Program
 Workpaper Detail: 21757B.001 - Mission Control PV Installation - Ph1
 In-Service Date: 11/30/2024

Description:

Budget Code 21757 - Zero Based Budget Estimate
--

Forecast In 2021 \$(000)			
Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor	0	0	50
Non-Labor	0	0	2,450
NSE	0	0	0
Total	<u>0</u>	<u>0</u>	<u>2,500</u>
FTE	0.0	0.0	0.4

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 21757.0
 Category: K. SDG&E Sustainability Program
 Category-Sub: 1. SDG&E Sustainability Program
 Workpaper Group: 21757B - SDG&E Sustainability Program
 Workpaper Detail: 21757B.002 - 2021-000102 - Metro PV Expansion - Ph1
 In-Service Date: 06/30/2022

Description:

Budget Code 21757 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		26	0	0
Non-Labor		1,255	0	0
NSE		0	0	0
	Total	<u>1,281</u>	<u>0</u>	<u>0</u>
FTE		0.2	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 21757.0
 Category: K. SDG&E Sustainability Program
 Category-Sub: 1. SDG&E Sustainability Program
 Workpaper Group: 21757B - SDG&E Sustainability Program
 Workpaper Detail: 21757B.003 - 2021-000089 - Mountain Empire PV Installation - Ph1
 In-Service Date: 11/30/2022

Description:

Budget Code 21757 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		81	0	0
Non-Labor		3,950	0	0
NSE		0	0	0
	Total	<u>4,031</u>	<u>0</u>	<u>0</u>
FTE		0.6	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 21757.0
 Category: K. SDG&E Sustainability Program
 Category-Sub: 1. SDG&E Sustainability Program
 Workpaper Group: 21757B - SDG&E Sustainability Program
 Workpaper Detail: 21757B.004 - 2021-000084 - Ramona PV Installation - Ph1
 In-Service Date: 03/31/2023

Description:

Budget Code 21757 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		84	20	0
Non-Labor		4,123	980	0
NSE		0	0	0
	Total	4,207	1,000	0
FTE		0.6	0.2	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
 2024 GRC - REVISED
 Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 21757.0
 Category: K. SDG&E Sustainability Program
 Category-Sub: 1. SDG&E Sustainability Program
 Workpaper Group: 21757B - SDG&E Sustainability Program
 Workpaper Detail: 21757B.005 - 2021-000103 - RBDC PV Expansion - Ph1
 In-Service Date: 10/31/2024

Description:

Budget Code 21757 Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		0	6	61
Non-Labor		0	294	3,002
NSE		0	0	0
	Total	0	300	3,063
FTE		0.0	0.1	0.5

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 21757.0
 Category: K. SDG&E Sustainability Program
 Category-Sub: 1. SDG&E Sustainability Program
 Workpaper Group: 21757B - SDG&E Sustainability Program
 Workpaper Detail: 21757B.006 - 2021-000194 - RBDC Rooftop PV Upgrade - Ph1
 In-Service Date: 11/30/2022

Description:

Budget Code 21757 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		32	0	0
Non-Labor		1,553	0	0
NSE		0	0	0
	Total	<u>1,585</u>	<u>0</u>	<u>0</u>
FTE		0.2	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 21757.0
 Category: K. SDG&E Sustainability Program
 Category-Sub: 1. SDG&E Sustainability Program
 Workpaper Group: 21757B - SDG&E Sustainability Program
 Workpaper Detail: 21757B.007 - 2021-000186 Beach Cities PV Installation - Ph1
 In-Service Date: 09/30/2022

Description:

Budget Code 21757 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	2022	2023	2024
Labor		16	0	0
Non-Labor		807	0	0
NSE		0	0	0
	Total	823	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

Area: FACILITIES/OTHER
 Witness: Richard D. Tattersall
 Budget Code: 21757.0
 Category: K. SDG&E Sustainability Program
 Category-Sub: 1. SDG&E Sustainability Program
 Workpaper Group: 21757B - SDG&E Sustainability Program
 Workpaper Detail: 21757B.008 - 2021-000115 Eastern PV Installation - Ph1
 In-Service Date: 05/31/2022

Description:

Budget Code 21757 - Zero Based Project Estimate

Forecast In 2021 \$(000)				
	Years	<u>2022</u>	<u>2023</u>	<u>2024</u>
Labor		9	0	0
Non-Labor		461	0	0
NSE		0	0	0
	Total	470	0	0
FTE		0.1	0.0	0.0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group 21757B

GRC Budget Code	Project Budget Code	GRC Workpaper	Proj_ID	Project Name	2022	2023	2024	2021-2024 Total
21757	21757 Solar Energy Program	21757B.01	TBD	Mission Control PV Installation - Ph1	0	-	2,500,000	2,500,000
21757	21757 Solar Energy Program	21757B.02	2021-000102	Metro PV Expansion - Phase 1	1,281,000	-	-	1,281,000
21757	21757 Solar Energy Program	21757B.03	2021-000089	Mountain Empire PV Installation - Phase 1	4,031,000	-	-	4,031,000
21757	21757 Solar Energy Program	21757B.04	2021-000084	Ramona PV Installation - Phase 1	4,207,000	1,000,000	-	5,207,000
21757	21757 Solar Energy Program	21757B.05	2021-000103	RBDC PV Expansion - Phase 1	-	300,000	3,063,000	3,363,000
21757	21757 Solar Energy Program	21757B.06	2021-000194	RBDC Rooftop PV Upgrade - Phase 1	1,585,000	-	-	1,585,000
21757	21757 Solar Energy Program	21757B.07	2021-000186	Beach Cities PV Installation - Phase 1	823,000	-	-	823,000
21757	21757 Solar Energy Program	21757B.08	2021-000115	Eastern PV Installation - Phase 1	470,000	-	-	470,000
Projects over \$1M Total					12,397,000	1,300,000	5,563,000	19,260,000

2021-000102 Metro PV Expansion Authorized Project Budget

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	195,440	1.10	214,984
Reprographics	3,000	1.00	3,000
Permitting/Planning/Inspections			
Plan Checks & Permits	36,429	1.00	36,429
Testing & Inspections	6,516	1.00	6,516
Construction			
Construction Services	1,303,265	1.00	1,303,265
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	4,000	1.00	4,000
Soil Sampling/Analysis	5,000	1.00	5,000
Removal			
Misc HazMat Disposal	30,000	1.00	30,000
Subtotal			1,603,194
Contingency @ 10%			160,319
Construction Cost Totals			1,763,513
Company CPM Labor			10,332
Company Support Labor			15,152
Contracted Labor			95,835
PM, Labor Cost Totals			121,319

Project Total	1,884,832
----------------------	------------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
Company CPM Labor			
Program Management (<i>Company</i>)	85	35.63	3,028
Project Analyst (<i>Company</i>)	75	35.63	2,672
Business Analyst (<i>Company</i>)	75	35.63	2,672
Facilities Specialist (<i>Company</i>)	55	35.63	1,959
Company Support Labor			
Facility Mgr. (<i>Company</i>)	65	129.50	8,418
Environmental Site Rep. (<i>Company</i>)	65	51.80	3,367
Safety Site Rep. (<i>Company</i>)	65	51.80	3,367
Contracted Labor			
Project Management (<i>Outside Labor</i>)			88,176
Project Site Safety (<i>Outside Labor</i>)	75	71.25	5,344
Document Control (<i>Outside Labor</i>)	65	35.63	2,316
Subtotal			121,319

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

**2021-000089 Mountain Empire PV
Pre-Authorization Scoping Estimate**

	Item Description/ or Phase of Work	CAPITAL		
		Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Architectural and Engineering				
	Architectural and Engineering	420,150	1.00	420,150
	Reprographics	500	1.00	500
Permitting/Planning/Inspections				
	Plan Checks & Permits	15,000	1.00	15,000
	Testing & Inspections	20,000	1.00	20,000
Construction				
	Construction Services	3,351,939	1.00	3,351,939
	Low Voltage Cabling	35,000	1.00	35,000
Environmental & Safety Services				
	Asbestos and Lead Sampling/Analysis	2,500	1.00	2,500
	Soil Sampling/Analysis	5,000	1.00	5,000
	Safety	5,000	1.00	5,000
IT, Audio Visual & Security				
	IT Consulting Services	100,000	1.00	100,000
Subtotal				3,955,089
Contingency @ 20%				791,018
Construction Cost Totals				4,746,107
Company CPM Labor				25,488
Company Support Labor				7,839
Contracted Labor				196,873
PM, Labor Cost Totals				230,200

Project Total	4,976,307
----------------------	------------------

	Item Description/ or Phase of Work	CAPITAL		
		Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor				
	Program Management (Company)	85	87.89	7,471
	Project Analyst (Company)	75	87.89	6,592
	Business Analyst (Company)	75	87.89	6,592
	Facilities Specialist (Company)	55	87.89	4,834
Company Support Labor				
	Facility Mgr. (Company)	65	67.00	4,355
	Environmental Site Rep. (Company)	65	26.80	1,742
	Safety Site Rep. (Company)	65	26.80	1,742
Contracted Labor				
	Project Management (Outside Labor)			177,977
	Project Coordination (Outside Labor)	75	175.78	13,183
	Document Control (Outside Labor)	65	87.89	5,713
Subtotal				230,200

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

2021-00084 Ramona PV - Preliminary Action Plan
Pre-Authorized Scoping Estimate

		CAPITAL	
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	474,950	1.00	474,950
Electrical Engineering	20,000	1.00	20,000
Permitting/Planning/Inspections			
Plan Checks & Permits	30,000	1.00	30,000
Testing & Inspections	30,000	1.00	30,000
Construction			
Construction Services - Prava	3,041,144	1.05	3,193,202
Construction - Go Electric Microgrid / Solar	1,286,200	1.00	1,286,200
Low Voltage Cabling - Southland Electric	75,000	1.00	75,000
Enviromental & Safety Services			
Asbestos and Lead Sampling/Analysis	2,500	1.00	2,500
Soil Sampling/Analysis	5,000	1.00	5,000
Safety	5,000	1.00	5,000
Removal			
Asbestos and Lead Abatement	30,000	1.00	30,000
Real Estate & Planning			
Moving Costs	10,000	1.00	10,000
Signage (Interior)	10,000	1.00	10,000
Signage (Exterior)	10,000	1.00	10,000
Subtotal			5,181,852
Contingency @ 10%			518,185
Construction Cost Totals			5,700,037
Company CPM Labor			32,537
Company Support Labor			28,490
Contracted Labor			238,700
PM, Labor Cost Totals			299,727

Project Total	5,999,764
----------------------	------------------

		CAPITAL	
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor			
Program Management (<i>Company</i>)	85	112.20	9,537
Project Analyst (<i>Company</i>)	75	112.20	8,415
Business Analyst (<i>Company</i>)	75	112.20	8,415
Facilities Specialist (<i>Company</i>)	55	112.20	6,171
Company Support Labor			
Facility Mgr. (<i>Company</i>)	65	243.50	15,828
Environmental Site Rep. (<i>Company</i>)	65	97.40	6,331
Safety Site Rep. (<i>Company</i>)	65	97.40	6,331
Contracted Labor			
Project Management (<i>Outside Labor</i>)			214,578
Project Coordination (<i>Outside Labor</i>)	75	224.40	16,830
Document Control (<i>Outside Labor</i>)	65	112.20	7,293
Subtotal			299,727

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

**2021-000103 RBDC PV Expansion
Pre-Authorized Scoping Estimate**

	Item Description/ or Phase of Work	CAPITAL		Subtotal
		Unit Cost (or Lump Sum)	Quantity (or One)	
Architectural and Engineering				
	Electrical Engineering	20,000	1.00	20,000
	Geotechnical Engineering	30,000	1.00	30,000
	Reprographics	500	1.00	500
	Plan Checks & Permits	10,000	1.00	10,000
	Testing & Inspections	10,000	1.00	10,000
Construction				
	Construction Services	2,467,932	1.00	2,467,932
	Removal	1,500	1.00	1,500
Environmental & Safety Services				
	Asbestos and Lead Sampling/Analysis	4,000	1.00	4,000
	Soil Sampling/Analysis	9,500	1.00	9,500
Real Estate & Planning				
	Move Management	1,500	1.00	1,500
	Signage (Interior)	250	1.00	250
IT, Audio Visual & Security				
	Security & Surveillance (access control / Surveillance)	4,000	1.00	4,000
	Security Equipment	25,000	1.00	25,000
	Subtotal			2,584,182
	Contingency @ 20%			516,836
	Construction Cost Totals			3,101,019
	Company CPM Labor			29,966
	Company Support Labor			29,276
	Contracted Labor			202,739
	PM, Labor Cost Totals			261,981

Project Total	3,363,000
----------------------	------------------

	Item Description/ or Phase of Work	CAPITAL		Subtotal
		Unit Cost (or Lump Sum)	Hours (or One)	
Company CPM Labor				
	Program Management (Company)	85	76.43	6,497
	Planning & Design Management (Company)	65	120.00	7,800
	Project Analyst (Company)	75	76.43	5,733
	Business Analyst (Company)	75	76.43	5,733
	Facilities Specialist (Company)	55	76.43	4,204
Company Support Labor				
	Facility Mgr. (Company)	65	228.00	14,820
	Move Coordinator (Company)	65	40.00	2,600
	Environmental Site Rep. (Company)	65	91.20	5,928
	Safety Site Rep. (Company)	65	91.20	5,928
Contracted Labor				
	Project Management (Outside Labor)			186,306
	Project Coordination (Outside Labor)	75	152.87	11,465
	Document Control (Outside Labor)	65	76.43	4,968
	Subtotal			261,981

2021-000194 RBDC Rooftop PV Upgrade Authorized Project Budget

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
Architectural and Engineering			
Electrical Engineering	12,000	1.00	12,000
Reprographics	500	1.00	500
Permitting/Planning/Inspections			
Plan Checks & Permits	4,000	1.00	4,000
Testing & Inspections	2,000	1.00	2,000
Construction			
Construction Services	1,426,888	1.10	1,569,577
Low Voltage Cabling	2,500	1.00	2,500
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	4,000	1.00	4,000
Removal			
Demolition & Removals	5,500	1.00	5,500
Subtotal			1,600,077
Contingency @ 10%			160,008
Construction Cost Totals			1,760,084
Company CPM Labor			10,312
Company Support Labor			14,099
Contracted Labor			127,651
PM, Labor Cost Totals			152,061

Project Total	1,912,145
----------------------	------------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	35.56	3,022
Project Analyst (Company)	75	35.56	2,667
Business Analyst (Company)	75	35.56	2,667
Facilities Specialist (Company)	55	35.56	1,956
Company Support Labor			
Facility Mgr. (Company)	65	120.50	7,833
Environmental Site Rep. (Company)	65	48.20	3,133
Safety Site Rep. (Company)	65	48.20	3,133
Contracted Labor			
Project Management (Outside Labor)			120,006
Project Site Safety (Outside Labor)	75	71.11	5,334
Document Control (Outside Labor)	65	35.56	2,311
Subtotal			152,061

2021-000186 Beach Cities PV Installation
Pre-Authorization Scoping Estimate

		CAPITAL	
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	28,440	1.00	28,440
Reprographics	3,000	1.00	3,000
Permitting/Planning/Inspections			
Plan Checks & Permits	8,500	1.00	8,500
Testing & Inspections	10,000	1.00	10,000
Construction			
Construction Services	555,786	1.00	555,786
Construction - Electrical	688,193	1.00	688,193
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	9,500	1.00	9,500
Real Estate & Planning			
Signage (Exterior)	2,500	1.00	2,500
Subtotal			1,305,919
Contingency @ 10%			130,592
Construction Cost Totals			1,436,511
Company CPM Labor			8,416
Company Support Labor			16,205
Contracted Labor			81,330
PM, Labor Cost Totals			105,950

Project Total	1,542,461
----------------------	------------------

		CAPITAL	
Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	29.02	2,467
Project Analyst (Company)	75	29.02	2,177
Business Analyst (Company)	75	29.02	2,177
Facilities Specialist (Company)	55	29.02	1,596
Company Support Labor			
Facility Mgr. (Company)	65	138.50	9,003
Environmental Site Rep. (Company)	65	55.40	3,601
Safety Site Rep. (Company)	65	55.40	3,601
Contracted Labor			
Project Management (Outside Labor)			75,090
Project Site Safety (Outside Labor)	75	58.04	4,353
Document Control (Outside Labor)	65	29.02	1,886
Subtotal			105,950

2021-0000115 Eastern PV Installation - Preliminary Action Plan
Authorized Project Budget

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Quantity (or One)	Subtotal
Architectural and Engineering			
Architectural and Engineering	105,120	1.00	105,120
Permitting/Planning/Inspections			
Plan Checks & Permits	10,000	1.00	10,000
Construction			
Construction Services - Nielsen	1,088,345	1.10	1,197,180
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	1,500	1.00	1,500
Soil Sampling/Analysis	1,500	1.00	1,500
Removal			
Demolition & Removals	2,500	1.00	2,500
Contaminated Soil Removal	15,000	1.00	15,000
Subtotal			1,332,800
Contingency @ 20%			266,560
Construction Cost Totals			1,599,359
Company CPM Labor			8,589
Company Support Labor			12,344
Contracted Labor			69,676
PM, Labor Cost Totals			90,608

Project Total	1,689,968
----------------------	------------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL Hours (or One)	Subtotal
Company CPM Labor			
Program Management (<i>Company</i>)	85	29.62	2,518
Project Analyst (<i>Company</i>)	75	29.62	2,221
Business Analyst (<i>Company</i>)	75	29.62	2,221
Facilities Specialist (<i>Company</i>)	55	29.62	1,629
Company Support Labor			
Facility Mgr. (<i>Company</i>)	65	105.50	6,858
Environmental Site Rep. (<i>Company</i>)	65	42.20	2,743
Safety Site Rep. (<i>Company</i>)	65	42.20	2,743
Contracted Labor			
Project Management (Outside Labor)			63,308
Project Site Safety (<i>Outside Labor</i>)	75	59.24	4,443
Document Control (<i>Outside Labor</i>)	65	29.62	1,925
Subtotal			90,608

San Diego Gas & Electric Company
2024 GRC - REVISED
Capital Workpapers

TBD Mission Control Photovoltaic System
Pre-Authorization Scoping Estimate

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL	
		Quantity (or One)	Subtotal
Architectural and Engineering			
CAD Services	1,678	1.00	1,678
Civil Engineering	20,000	1.00	20,000
Electrical Engineering	45,000	1.00	45,000
Geotechnical Engineering	20,000	1.00	20,000
Reprographics	500	1.00	500
Structural Engineering	20,000	1.00	20,000
Permitting/Planning/Inspections			
Plan Checks & Permits - N/A	8,000	1.00	8,000
Testing & Inspections - Allowance, If Desired	10,000	1.00	10,000
Construction			
Construction Services - Ground Mounted PV Arrays	1,305,000	1.00	1,305,000
Construction - Roof Mounted PV Arrays	630,000	1.00	630,000
Low Voltage Cabling - BMS	5,000	1.00	5,000
Environmental & Safety Services			
Asbestos and Lead Sampling/Analysis	2,500	1.00	2,500
Soil Sampling/Analysis	4,000	1.00	4,000
Removal			
Demolition & Removals	1,000	1.00	1,000
Misc HazMat Disposal - Allowance	5,000	1.00	5,000
Real Estate & Planning			
Signage (Exterior)	1,000	1.00	1,000
IT, Audio Visual & Security			
Security & Surveillance (access control / Surveillance)	25,000	1.00	25,000
Subtotal			2,103,678
Contingency @ 10%			210,368
Construction Cost Totals			2,314,046
Company CPM Labor			16,268
Company Support Labor			10,368
Contracted Labor			159,319
PM, Labor Cost Totals			185,954

Project Total	2,500,000
----------------------	------------------

Item Description/ or Phase of Work	Unit Cost (or Lump Sum)	CAPITAL	
		Hours (or One)	Subtotal
Company CPM Labor			
Program Management (Company)	85	56.10	4,768
Project Analyst (Company)	75	56.10	4,207
Business Analyst (Company)	75	56.10	4,207
Facilities Specialist (Company)	55	56.10	3,085
Company Support Labor			
Facility Mgr. (Company)	65	151.50	9,848
Environmental Site Rep. (Company)	65	4.00	260
Safety Site Rep. (Company)	65	4.00	260
Contracted Labor			
Project Management (Outside Labor)			147,257
Project Site Safety (Outside Labor)	75	112.20	8,415
Document Control (Outside Labor)	65	56.10	3,646
Subtotal			185,954