

Application of SAN DIEGO GAS & ELECTRIC)
COMPANY for authority to update its gas and)
electric revenue requirement and base rates)
effective January 1, 2028 (U 902-M))

Application No.: A.26-06-XXX

Exhibit No.: (SDGE-15-CWP)

CAPITAL WORKPAPERS TO
PREPARED DIRECT TESTIMONY
OF OMAR ZEVALLOS
ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

JUNE 2026



2028 General Rate Case - APPLICATION
INDEX OF WORKPAPERS

Exhibit SDGE-15-CWP - CYBERSECURITY

DOCUMENT	PAGE
Overall Summary For Exhibit No. SDGE-15-CWP	1
Category: A. CYBERSECURITY	2
..A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES	5
..B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES	24
..C09060 - RAMP - CYBER - SDGE - SENSITIVE DATA PROTECTION	47
..D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY	62
..E09060 - RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE	88
..F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES	105

Overall Summary For Exhibit No. SDGE-15-CWP

Area:	CYBERSECURITY
Witness:	Omar Zevallos

In 2025 \$ (000)

A. CYBERSECURITY

Adjusted-Forecast					
2026	2027	2028	2029	2030	2031
0	8,690	33,818	4,661	31,457	24,935
0	8,690	33,818	4,661	31,457	24,935

Total

Note: Totals may include rounding differences.

Area: CYBERSECURITY
 Witness: Omar Zevallos
 Category: A. CYBERSECURITY
 Workpaper: VARIOUS

Summary for Category: A. CYBERSECURITY

	In 2025\$ (000) Incurred Costs						
	Adjusted-Recorded	Adjusted-Forecast					
	2025	2026	2027	2028	2029	2030	2031
Labor	623	0	2,150	2,196	1,142	2,211	2,374
Non-Labor	31,881	0	6,540	31,622	3,519	29,246	22,561
NSE	0	0	0	0	0	0	0
Total	32,504	0	8,690	33,818	4,661	31,457	24,935
FTE	3.2	0.0	13.1	13.8	6.8	13.4	14.4

Workpapers belonging to this Category:

A09060 RAMP - CYBER - SDGE - PERIMETER DEFENSES

Labor	258	0	278	0	139	0	0
Non-Labor	8,045	0	1,360	2,740	674	5,280	7,920
NSE	0	0	0	0	0	0	0
Total	8,303	0	1,638	2,740	813	5,280	7,920
FTE	1.5	0.0	1.7	0.0	0.8	0.0	0.0

Unit Measure: Users Protected

Units	32,000	0	32,000	32,000	32,000	32,000	32,000
-------	--------	---	--------	--------	--------	--------	--------

B09060 RAMP - CYBER - SDGE - INTERNAL DEFENSES

Labor	202	0	936	521	0	0	252
Non-Labor	5,268	0	2,590	8,923	0	5,280	1,239
NSE	0	0	0	0	0	0	0
Total	5,470	0	3,526	9,444	0	5,280	1,491
FTE	0.7	0.0	5.7	3.6	0.0	0.0	1.5

Unit Measure: Users Protected

Units	32,000	0	32,000	32,000	0	32,000	32,000
-------	--------	---	--------	--------	---	--------	--------

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Category: A. CYBERSECURITY
Workpaper: VARIOUS

In 2025\$ (000) Incurred Costs

	Adjusted-Recorded	Adjusted-Forecast					
	2025	2026	2027	2028	2029	2030	2031
C09060 RAMP - CYBER - SDGE - SENSITIVE DATA PROTECTION							
Labor	0	0	0	0	0	0	0
Non-Labor	18,402	0	0	4,110	0	7,920	0
NSE	0	0	0	0	0	0	0
Total	18,402	0	0	4,110	0	7,920	0
FTE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unit Measure: Users Protected							
Units	32,000	0	0	32,000	0	32,000	0
D09060 RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY							
Labor	163	0	936	774	1,003	2,027	1,269
Non-Labor	166	0	2,590	7,319	2,845	1,945	7,880
NSE	0	0	0	0	0	0	0
Total	329	0	3,526	8,093	3,848	3,972	9,149
FTE	1.0	0.0	5.7	4.7	6.0	12.3	7.7
Unit Measure: Users Protected							
Units	32,000	0	32,000	32,000	32,000	32,000	32,000
E09060 RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT							
Labor	0	0	0	0	0	184	184
Non-Labor	0	0	0	2,740	0	6,181	902
NSE	0	0	0	0	0	0	0
Total	0	0	0	2,740	0	6,365	1,086
FTE	0.0	0.0	0.0	0.0	0.0	1.1	1.1
Unit Measure: Users Protected							
Units	0	0	0	32,000	0	32,000	32,000

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Category: A. CYBERSECURITY
Workpaper: VARIOUS

	In 2025\$ (000) Incurred Costs						
	Adjusted-Recorded	Adjusted-Forecast					
	2025	2026	2027	2028	2029	2030	2031
F09060 RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES							
Labor	0	0	0	901	0	0	669
Non-Labor	0	0	0	5,790	0	2,640	4,620
NSE	0	0	0	0	0	0	0
Total	0	0	0	6,691	0	2,640	5,289
FTE	0.0	0.0	0.0	5.5	0.0	0.0	4.1
Unit Measure: Users Protected							
Units	0	0	0	32,000	0	32,000	32,000

Note: Totals may include rounding differences.

Beginning of Workpaper Group
A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: A0906.0
Category: A. CYBERSECURITY
Category-Sub: 1. PERIMETER DEFENSES
Workpaper Group: A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES
Unit Measure: Users Protected

Summary of Results (Constant 2025 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast					
Years		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Labor	Zero-Based	818	428	-1	0	258	0	278	0	139	0	0
Non-Labor	Zero-Based	1,389	1,765	-194	0	8,045	0	1,360	2,740	674	5,280	7,920
NSE	Zero-Based	0	0	0	0	0	0	0	0	0	0	0
Total		2,207	2,193	-195	0	8,303	0	1,638	2,740	813	5,280	7,920
FTE	Zero-Based	2.6	1.0	0.0	0.0	1.5	0.0	1.7	0.0	0.8	0.0	0.0
Units	Zero-Based	32,000	32,000	32,000	32,000	32,000	0	32,000	32,000	32,000	32,000	32,000

Business Purpose:

The Perimeter Defenses program includes activities that the Companies take to protect the external access points of their internal information technology systems. Perimeter Defenses are designed to prevent attacks, protect the integrity of, and detect unauthorized access to the Companies' internal information technology systems.

Physical Description:

Modern perimeter defense focuses on securing the network edge with adaptive, layered controls rather than static barriers. Firewalls remain central, but next-generation implementations provide granular traffic filtering, application awareness, and intrusion prevention. Network segmentation is critical for isolating sensitive systems, reducing lateral movement, and enforcing zero trust principles. Web Application Firewalls protect web-facing applications by inspecting HTTP and HTTPS traffic to block attacks such as SQL injection, cross-site scripting, and session hijacking. DDoS mitigation ensures availability against volumetric and protocol-based floods through rate limiting, traffic shaping, and cloud-based scrubbing services. Automation and orchestration now enable real-time threat detection and response at the perimeter. These defenses integrate identity-aware access controls, hardened VPN configurations, and continuous monitoring to adapt to evolving threats. The perimeter is no longer a fixed boundary; it is a

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: A0906.0
Category: A. CYBERSECURITY
Category-Sub: 1. PERIMETER DEFENSES
Workpaper Group: A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES
Unit Measure: Users Protected

dynamic security layer combining segmentation, advanced firewalls, and automated threat mitigation to maintain resilience across hybrid and cloud environments. The non-labor capital costs for this category are primarily for the hardware and software materials for cybersecurity systems and contractor services. The labor capital costs for this category are for the employees assigned to design, build, and deploy the new systems.

Project Justification:

Perimeter defenses reduce the likelihood of successful external attacks against private networks by controlling and monitoring access at the network edge. This strategy limits entry to authorized users, decreases the chance that malicious code will penetrate the environment, and introduces barriers that slow or deter attackers. It also provides visibility into all ingress and egress points while enabling continuous real-time monitoring of perimeter activity. The funded activities under this area address risks such as data manipulation or integrity failures, infrastructure outages, unauthorized access, malicious software intrusions, cybersecurity control breakdowns, operational system disruptions, equipment loss or theft, and human error. By implementing strong perimeter defenses, organizations reduce the potential impact of data corruption, system unavailability, theft or destruction of assets, and exposure of sensitive business information including customer records.

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: A0906.0
Category: A. CYBERSECURITY
Category-Sub: 1. PERIMETER DEFENSES
Workpaper Group: A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES
Unit Measure: Users Protected

Forecast Methodology:

Labor - Zero-Based

A zero-based method was utilized to develop the labor forecast. A zero based forecast is accurate as rapidly changing cyber needs and lack of reliable historical averages require building costs from the ground up (zero-based), using current market quotes and SME estimates.

Non-Labor - Zero-Based

A zero-based method was utilized to develop the non-labor forecast. A zero based forecast is accurate as rapidly changing cyber needs and lack of reliable historical averages require building costs from the ground up (zero-based), using current market quotes and SME estimates.

NSE - Zero-Based

Not applicable.

Units - Zero-Based

Cybersecurity programs safeguard end user environments including workstations, mobile devices, identity platforms, and access controls. Each user represents an individual security footprint that requires ongoing identity lifecycle management (such as provisioning, authentication, and access administration) and continuous endpoint protection and monitoring. Using "users protected" as the unit appropriately ties costs to the scale of these activities. The underlying workload increases in direct proportion to the number of employees and contractors whose identities, devices, and access must be secured.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: A0906.0
Category: A. CYBERSECURITY
Category-Sub: 1. PERIMETER DEFENSES
Workpaper Group: A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES
Unit Measure: Users Protected

Summary of Adjustments to Forecast:

In 2025 \$ (000)																		
Years	Base Forecast						Forecast Adjustments						Adjusted-Forecast					
	2026	2027	2028	2029	2030	2031	2026	2027	2028	2029	2030	2031	2026	2027	2028	2029	2030	2031
Labor	0	273	0	135	0	0	0	5	0	4	0	0	0	278	0	139	0	0
NLbr	0	1,360	2,740	674	5,280	7,920	0	0	0	0	0	0	0	1,360	2,740	674	5,280	7,920
NSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1,633	2,740	809	5,280	7,920	0	5	0	4	0	0	0	1,638	2,740	813	5,280	7,920
FTE	0.0	1.7	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.8	0.0	0.0
Units	0	32,000	32,000	32,000	32,000	32,000	0	0	0	0	0	0	0	32,000	32,000	32,000	32,000	32,000

Forecast Adjustment Details

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2026 Total	0	0	0	0	0.0	0
2027	5	0	0	5	0.0	0
2027 Total	5	0	0	5	0.0	0
2028 Total	0	0	0	0	0.0	0
2029	4	0	0	4	0.0	0

Explanation: Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: A0906.0
Category: A. CYBERSECURITY
Category-Sub: 1. PERIMETER DEFENSES
Workpaper Group: A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES
Unit Measure: Users Protected

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
Explanation: Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.						
2029 Total	4	0	0	4	0.0	0
2030 Total	0	0	0	0	0.0	0
2031 Total	0	0	0	0	0.0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: A0906.0
Category: A. CYBERSECURITY
Category-Sub: 1. PERIMETER DEFENSES
Workpaper Group: A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES
Unit Measure: Users Protected

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Recorded (Nominal \$)*					
Labor	0	0	0	0	225
Non-Labor	0	0	0	0	8,045
NSE	0	0	0	0	0
Total	0	0	0	0	8,270
FTE	0.0	0.0	0.0	0.0	1.3
Units	0	0	0	0	0
Adjustments (Nominal \$) **					
Labor	475	287	-1	0	0
Non-Labor	928	1,355	-175	0	0
NSE	0	0	0	0	0
Total	1,403	1,642	-176	0	0
FTE	2.2	0.9	0.0	0.0	0.0
Units	32,000	32,000	32,000	32,000	32,000
Recorded-Adjusted (Nominal \$)					
Labor	475	287	-1	0	225
Non-Labor	928	1,355	-175	0	8,045
NSE	0	0	0	0	0
Total	1,403	1,642	-176	0	8,270
FTE	2.2	0.9	0.0	0.0	1.3
Units	32,000	32,000	32,000	32,000	32,000
Vacation & Sick (Nominal \$)					
Labor	72	42	0	0	33

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: A0906.0
Category: A. CYBERSECURITY
Category-Sub: 1. PERIMETER DEFENSES
Workpaper Group: A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES
Unit Measure: Users Protected

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	72	42	0	0	33
FTE	0.4	0.1	0.0	0.0	0.2
Units	0	0	0	0	0
Escalation to 2025\$					
Labor	272	99	0	0	0
Non-Labor	461	410	-19	0	0
NSE	0	0	0	0	0
Total	733	509	-19	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Recorded-Adjusted (Constant 2025\$)					
Labor	818	428	-1	0	258
Non-Labor	1,389	1,765	-194	0	8,045
NSE	0	0	0	0	0
Total	2,207	2,193	-195	0	8,303
FTE	2.6	1.0	0.0	0.0	1.5
Units	32,000	32,000	32,000	32,000	32,000

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: A0906.0
Category: A. CYBERSECURITY
Category-Sub: 1. PERIMETER DEFENSES
Workpaper Group: A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES
Unit Measure: Users Protected

Summary of Adjustments to Recorded:

		In Nominal \$(000)				
	Years	2021	2022	2023	2024	2025
Labor		475	287	-1	0	0
Non-Labor		928	1,355	-175	0	0
NSE		0	0	0	0	0
	Total	1,403	1,642	-176	0	0
FTE		2.2	0.9	0.0	0.0	0.0
Units		32,000	32,000	32,000	32,000	32,000

Detail of Adjustments to Recorded in Nominal \$:

Year	Labor	NLbr	NSE	Total	FTE	Units
2021	475	928	0	1,403	2.2	0
Explanation:	Cloud Access Security Broker (CASB) Services (T000022 - I/O 200552385, 200552386, 200552388, 200552389) is moving from 009060 to A09060.000.					
2021	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2021 Total	475	928	0	1,403	2.2	32,000

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: A0906.0
Category: A. CYBERSECURITY
Category-Sub: 1. PERIMETER DEFENSES
Workpaper Group: A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES
Unit Measure: Users Protected

Year	Labor	NLbr	NSE	Total	FTE	Units
2022	287	1,355	0	1,642	0.9	0
Explanation:	Cloud Access Security Broker (CASB) Services (T000022 - I/O 200552385, 200552386, 200552388, 200552389) is moving from 009060 to A09060.000.					
2022	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2022 Total	287	1,355	0	1,642	0.9	32,000
2023	-0.629	-175	0	-176	0.0	0
Explanation:	Cloud Access Security Broker (CASB) Services (T000022 - I/O 200552385, 200552386, 200552388, 200552389) is moving from 009060 to A09060.000.					
2023	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2023 Total	-0.629	-175	0	-176	0.0	32,000
2024	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: A0906.0
Category: A. CYBERSECURITY
Category-Sub: 1. PERIMETER DEFENSES
Workpaper Group: A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES
Unit Measure: Users Protected

Year	Labor	NLbr	NSE	Total	FTE	Units
2024 Total	0	0	0	0	0.0	32,000
2025	0	0	0	0	0.0	32,000
Explanation: Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.						
2025 Total	0	0	0	0	0.0	32,000

Note: Totals may include rounding differences.

**Beginning of Workpaper Sub Details for
Workpaper Group A09060**

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: A0906.0
Category: A. CYBERSECURITY
Category-Sub: 1. PERIMETER DEFENSES
Workpaper Group: A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES
Workpaper Detail: A09060.001 - A09060.001 - Perimeter Defenses On Premise License
Unit Measure: Users Protected

In-Service Date: 11/30/2028

Description:

This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	2,740	0	0	0
NSE	0	0	0	0	0	0
Total	0	0	2,740	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	32,000	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: A0906.0
Category: A. CYBERSECURITY
Category-Sub: 1. PERIMETER DEFENSES
Workpaper Group: A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES
Workpaper Detail: A09060.002 - A09060.002 - Perimeter Defenses On Premise License
Unit Measure: Users Protected

In-Service Date: 11/30/2030

Description:

This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	0	0	5,280	0
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>5,280</u>	<u>0</u>
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	32,000	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: A0906.0
Category: A. CYBERSECURITY
Category-Sub: 1. PERIMETER DEFENSES
Workpaper Group: A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES
Workpaper Detail: A09060.003 - A09060.003 - Perimeter Defenses Software
Unit Measure: Users Protected

In-Service Date: 04/30/2031

Description:

Investment in our enterprise licenses for our firewalls which function as our primary perimeter defense capability.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	0	0	0	7,920
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>7,920</u>
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0	32,000

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: A0906.0
Category: A. CYBERSECURITY
Category-Sub: 1. PERIMETER DEFENSES
Workpaper Group: A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES
Workpaper Detail: A09060.004 - A09060.004 - Perimeter Defenses On Premise Hardware
Unit Measure: Users Protected

In-Service Date: 12/31/2027

Description:

Enhancement replacement or upgrades to our core firewall infrastructure hardware. This hardware enables our primary line of defense against malicious traffic.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	278	0	0	0	0
Non-Labor	0	1,360	0	0	0	0
NSE	0	0	0	0	0	0
Total	0	1,638	0	0	0	0
FTE	0.0	1.7	0.0	0.0	0.0	0.0
Units	0	32,000	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: A0906.0
Category: A. CYBERSECURITY
Category-Sub: 1. PERIMETER DEFENSES
Workpaper Group: A09060 - RAMP - CYBER - SDGE - PERIMETER DEFENSES
Workpaper Detail: A09060.005 - A09060.005 - Perimeter Defenses On Premise Hardware
Unit Measure: Users Protected

In-Service Date: 12/31/2029

Description:

Enhancement replacement or upgrades to our core firewall infrastructure hardware. This hardware enables our primary line of defense against malicious traffic.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	139	0	0
Non-Labor	0	0	0	674	0	0
NSE	0	0	0	0	0	0
Total	0	0	0	813	0	0
FTE	0.0	0.0	0.0	0.8	0.0	0.0
Units	0	0	0	32,000	0	0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group A09060

San Diego Gas & Electric Company
2028 GRC - APPLICATION
Capital Workpapers

The supplemental workpaper includes a table that presents the composition of forecasted costs. Related projects are grouped by similar work types or business areas for clarity. The table further disaggregates costs by forecast year and provides a breakdown of labor and non-labor components, which together comprise the total forecast for this workpaper.

FORECAST YR	DESCRIPTION (PUBLIC)	MITIGATION	LABOR	NON-LABOR	TOTAL
2027	Enhancement, replacement or upgrades to our core firewall infrastructure hardware. This hardware enables our primary line of defense against malicious traffic.	PERIMETER DEFENSES	273,000	1,360,000	1,633,000
2028	This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's	PERIMETER DEFENSES	-	2,740,000	2,740,000
2029	Enhancement, replacement or upgrades to our core firewall infrastructure hardware. This hardware enables our primary line of defense against malicious traffic.	PERIMETER DEFENSES	135,000	674,000	809,000
2030	This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.	PERIMETER DEFENSES	-	5,280,000	5,280,000
2031	Investment in our enterprise licenses for our firewalls which function as our primary perimeter defense capability.	PERIMETER DEFENSES	-	7,920,000	7,920,000
Grand Total			408,000	17,974,000	18,382,000

Beginning of Workpaper Group
B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Unit Measure: Users Protected

Summary of Results (Constant 2025 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast					
Years		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Labor	Zero-Based	92	262	96	3	202	0	936	521	0	0	252
Non-Labor	Zero-Based	7,011	2,410	207	0	5,268	0	2,590	8,923	0	5,280	1,239
NSE	Zero-Based	0	0	0	0	0	0	0	0	0	0	0
Total		7,103	2,672	304	3	5,470	0	3,526	9,444	0	5,280	1,491
FTE	Zero-Based	0.5	1.4	0.6	0.0	0.7	0.0	5.7	3.6	0.0	0.0	1.5
Units	Zero-Based	32,000	32,000	32,000	32,000	32,000	0	32,000	32,000	0	32,000	32,000

Business Purpose:

Internal Defense program activities are designed to detect and prevent unauthorized users, those misusing authorized credentials and malicious software (i.e., malware) from propagating inside of the perimeter and moving within the IT system or into the OT system. The enhancements to the Companies' IT and OT systems' Access Management system reduces the risk to internal systems and the likelihood and impact of a Cybersecurity incident. The activities in this category are designed to detect unauthorized users from moving laterally or vertically within the IT system or into the OT system, which improves the ability to identify and respond to threats more quickly.

Physical Description:

The types of internal defense activities include efforts such as more effective endpoint security monitoring, enhancements in threat and vulnerability management, insider threats, incident management, third party and supply chain risk mitigation, and cloud security. Endpoint security solutions continuously monitor end-user devices to detect and respond to cyber threats like ransomware and malware. Threat and vulnerability management (TVM) is a combination of tools and processes that identify threats and vulnerabilities to reduce potential loss, damage or destruction of assets or data. Insider threats are a type of cybersecurity event where an insider employee or approved contract resource will use his or her authorized

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Unit Measure: Users Protected

access, wittingly or unwittingly, to do harm to the Department's mission, resources, personnel, facilities, information, equipment, networks, or systems. Incident management is the process used by Cybersecurity teams to respond to an unplanned event or service interruption and restore the service to its operational state. Third party risk is the potential threat presented to organizations' employee and customer data, financial information and operations from the organization's supply-chain and other outside parties that provide products and/or services and have access to privileged systems. Cloud security entails securing cloud environments against unauthorized use/access, distributed denial of service (DDOS) attacks, hackers, malware, and other risks. The non-labor capital costs for this category are primarily for the hardware and software materials for cybersecurity systems and contractor services. The labor capital costs for this category are for the employees assigned to design, build, and deploy the new systems.

Project Justification:

The activities funded under this area address the following: manipulated data or integrity failure, infrastructure or availability failure, access control or confidentiality failure, malicious software intrusions, cybersecurity control failures, operational system failures, equipment loss or theft, human error, data corruption or unavailability, theft or destruction of systems and data, and exposure of sensitive business information including customer records.

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Unit Measure: Users Protected

Forecast Methodology:

Labor - Zero-Based

A zero-based method was utilized to develop the labor forecast. A zero based forecast is accurate as rapidly changing cyber needs and lack of reliable historical averages require building costs from the ground up (zero-based), using current market quotes and SME estimates.

Non-Labor - Zero-Based

A zero-based method was utilized to develop the non-labor forecast. A zero based forecast is accurate as rapidly changing cyber needs and lack of reliable historical averages require building costs from the ground up (zero-based), using current market quotes and SME estimates.

NSE - Zero-Based

Not applicable.

Units - Zero-Based

Cybersecurity programs safeguard end user environments including workstations, mobile devices, identity platforms, and access controls. Each user represents an individual security footprint that requires ongoing identity lifecycle management (such as provisioning, authentication, and access administration) and continuous endpoint protection and monitoring. Using "users protected" as the unit appropriately ties costs to the scale of these activities. The underlying workload increases in direct proportion to the number of employees and contractors whose identities, devices, and access must be secured.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Unit Measure: Users Protected

Summary of Adjustments to Forecast:

In 2025 \$ (000)																		
Years	Base Forecast						Forecast Adjustments						Adjusted-Forecast					
	2026	2027	2028	2029	2030	2031	2026	2027	2028	2029	2030	2031	2026	2027	2028	2029	2030	2031
Labor	0	920	512	0	0	248	0	16	9	0	0	4	0	936	521	0	0	252
NLbr	0	2,590	8,923	0	5,280	1,239	0	0	0	0	0	0	0	2,590	8,923	0	5,280	1,239
NSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3,510	9,435	0	5,280	1,487	0	16	9	0	0	4	0	3,526	9,444	0	5,280	1,491
FTE	0.0	5.7	3.6	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	3.6	0.0	0.0	1.5
Units	0	32,000	32,000	0	32,000	32,000	0	0	0	0	0	0	0	32,000	32,000	0	32,000	32,000

Forecast Adjustment Details

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2026 Total	0	0	0	0	0.0	0
2027	16	0	0	16	0.0	0
2027 Total	16	0	0	16	0.0	0
2028	9	0	0	9	0.0	0

Explanation: Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.

Explanation: Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Unit Measure: Users Protected

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2028 Total	9	0	0	9	0.0	0
2029 Total	0	0	0	0	0.0	0
2030 Total	0	0	0	0	0.0	0
2031	4	0	0	4	0.0	0
Explanation: Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.						
2031 Total	4	0	0	4	0.0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Unit Measure: Users Protected

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Recorded (Nominal \$)*					
Labor	53	175	76	2	0
Non-Labor	4,683	1,850	187	0	0
NSE	0	0	0	0	0
Total	4,736	2,026	263	2	0
FTE	0.4	1.2	0.5	0.0	0.0
Units	0	0	0	0	0
Adjustments (Nominal \$) **					
Labor	0	0	0	0	176
Non-Labor	0	0	0	0	5,268
NSE	0	0	0	0	0
Total	0	0	0	0	5,444
FTE	0.0	0.0	0.0	0.0	0.6
Units	32,000	32,000	32,000	32,000	32,000
Recorded-Adjusted (Nominal \$)					
Labor	53	175	76	2	176
Non-Labor	4,683	1,850	187	0	5,268
NSE	0	0	0	0	0
Total	4,736	2,026	263	2	5,444
FTE	0.4	1.2	0.5	0.0	0.6
Units	32,000	32,000	32,000	32,000	32,000
Vacation & Sick (Nominal \$)					
Labor	8	26	11	0	26

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Unit Measure: Users Protected

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	8	26	11	0	26
FTE	0.1	0.2	0.1	0.0	0.1
Units	0	0	0	0	0
Escalation to 2025\$					
Labor	31	61	10	0	0
Non-Labor	2,328	560	21	0	0
NSE	0	0	0	0	0
Total	2,358	621	30	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Recorded-Adjusted (Constant 2025\$)					
Labor	92	262	96	3	202
Non-Labor	7,011	2,410	207	0	5,268
NSE	0	0	0	0	0
Total	7,103	2,672	304	3	5,470
FTE	0.5	1.4	0.6	0.0	0.7
Units	32,000	32,000	32,000	32,000	32,000

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Unit Measure: Users Protected

Summary of Adjustments to Recorded:

		In Nominal \$(000)				
	Years	2021	2022	2023	2024	2025
Labor		0	0	0	0	176
Non-Labor		0	0	0	0	5,268
NSE		0	0	0	0	0
	Total	0	0	0	0	5,444
FTE		0.0	0.0	0.0	0.0	0.6
Units		32,000	32,000	32,000	32,000	32,000

Detail of Adjustments to Recorded in Nominal \$:

Year	Labor	NLbr	NSE	Total	FTE	Units
2021	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2021	-0.046	0	0	-0.046	-0.1	0
Explanation:	Moving to correct workpaper in Cybersecurity B9060.					
2021	0.046	0	0	0.046	0.1	0
Explanation:	Adjustment made to correct an earlier adjustment applied to B09060.					

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Unit Measure: Users Protected

Year	Labor	NLbr	NSE	Total	FTE	Units
2021 Total	0	0	0	0	0.0	32,000
2022	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2022 Total	0	0	0	0	0.0	32,000
2023	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2023 Total	0	0	0	0	0.0	32,000
2024	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2024 Total	0	0	0	0	0.0	32,000
2025	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Unit Measure: Users Protected

Year	Labor	NLbr	NSE	Total	FTE	Units
2025	176	5,268	0	5,444	0.6	0
Explanation: Allocating to the correct mitigation.						
2025 Total	176	5,268	0	5,444	0.6	32,000

Note: Totals may include rounding differences.

**Beginning of Workpaper Sub Details for
Workpaper Group B09060**

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Workpaper Detail: B09060.001 - B09060.001 - Internal Defenses On Premise License
Unit Measure: Users Protected

In-Service Date: 11/30/2028

Description:

This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	2,740	0	0	0
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>0</u>	<u>2,740</u>	<u>0</u>	<u>0</u>	<u>0</u>
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	32,000	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Workpaper Detail: B09060.002 - B09060.002 - Internal Defenses On Premise License
Unit Measure: Users Protected

In-Service Date: 11/30/2030

Description:

This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	0	0	5,280	0
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>5,280</u>	<u>0</u>
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	32,000	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Workpaper Detail: B09060.003 - B09060.003 - Internal Defenses
Unit Measure: Users Protected

In-Service Date: 12/31/2027

Description:

IaaS and SAP Cloud Security focuses on protecting infrastructure-as-a-service environments and SAP workloads in the cloud. It includes identity management, encryption, access controls, threat detection, and compliance monitoring to safeguard data, ensure uptime, and prevent unauthorized access across virtualized and mission-critical enterprise systems.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	936	0	0	0	0
Non-Labor	0	0	0	0	0	0
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>936</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
FTE	0.0	5.7	0.0	0.0	0.0	0.0
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Workpaper Detail: B09060.004 - B09060.004 - Internal Defenses Software
Unit Measure: Users Protected

In-Service Date: 12/31/2027

Description:

IaaS and SAP Cloud Security focuses on protecting infrastructure-as-a-service environments and SAP workloads in the cloud. It includes identity management, encryption, access controls, threat detection, and compliance monitoring to safeguard data, ensure uptime, and prevent unauthorized access across virtualized and mission-critical enterprise systems.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	2,590	0	0	0	0
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>2,590</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	32,000	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Workpaper Detail: B09060.005 - B09060.005 - Internal Defenses Software
Unit Measure: Users Protected

In-Service Date: 04/30/2028

Description:

Investment in our enterprise licenses for our firewalls which function as our primary perimeter defense capability.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	5,280	0	0	0
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>0</u>	<u>5,280</u>	<u>0</u>	<u>0</u>	<u>0</u>
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Workpaper Detail: B09060.007 - B09060.007 - Internal Defenses
Unit Measure: Users Protected

In-Service Date: 12/31/2028

Description:

A security tool that protects users and data when they access cloud applications

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	521	0	0	0
Non-Labor	0	0	0	0	0	0
NSE	0	0	0	0	0	0
Total	0	0	521	0	0	0
FTE	0.0	0.0	3.6	0.0	0.0	0.0
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Workpaper Detail: B09060.008 - B09060.008 - Internal Defenses
Unit Measure: Users Protected

In-Service Date: 12/31/2031

Description:

A security tool that protects users and data when they access cloud applications

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	252
Non-Labor	0	0	0	0	0	0
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>252</u>
FTE	0.0	0.0	0.0	0.0	0.0	1.5
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Workpaper Detail: B09060.009 - B09060.009 - Internal Defenses Software
Unit Measure: Users Protected

In-Service Date: 12/31/2028

Description:

A security tool that protects users and data when they access cloud applications

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	903	0	0	0
NSE	0	0	0	0	0	0
Total	0	0	903	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: B0906.0
Category: A. CYBERSECURITY
Category-Sub: 2. INTERNAL DEFENSES
Workpaper Group: B09060 - RAMP - CYBER - SDGE - INTERNAL DEFENSES
Workpaper Detail: B09060.010 - B09060.010 - Internal Defenses Software
Unit Measure: Users Protected

In-Service Date: 12/31/2031

Description:

A security tool that protects users and data when they access cloud applications.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	0	0	0	1,239
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1,239</u>
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0	32,000

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group B09060

San Diego Gas & Electric Company
2028 GRC - APPLICATION
Capital Workpapers

The supplemental workpaper includes a table that presents the composition of forecasted costs. Related projects are grouped by similar work types or business areas for clarity. The table further disaggregates costs by forecast year and provides a breakdown of labor and non-labor components, which together comprise the total forecast for this workpaper.

FORECAST YR	DESCRIPTION (PUBLIC)	MITIGATION	LABOR	NON-LABOR	TOTAL
2027	IaaS and SAP Cloud Security focuses on protecting infrastructure-as-a-service environments and SAP workloads in the cloud. It includes identity management, encryption, access controls, threat detection, and compliance monitoring to safeguard data, ensure uptime, and prevent unauthorized access across virtualized and mission-critical enterprise systems.	INTERNAL DEFENSES	919,917	2,590,000	3,509,917
2028	This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.	INTERNAL DEFENSES	-	2,740,000	2,740,000
2028	A security tool that protects users and data when they access cloud applications	INTERNAL DEFENSES	512,339	903,258	1,415,597
2028	Investment in our enterprise licenses for our firewalls which function as our primary perimeter defense capability.	INTERNAL DEFENSES	-	5,280,000	5,280,000
2030	This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.	INTERNAL DEFENSES	-	5,280,000	5,280,000
2031	A security tool that protects users and data when they access cloud applications	INTERNAL DEFENSES	248,000	1,239,000	1,487,000
Grand Total			1,680,256	18,032,258	19,712,514

Beginning of Workpaper Group
C09060 - RAMP - CYBER - SDGE - SENSITIVE DATA PROTECTION

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: C0906.0
Category: A. CYBERSECURITY
Category-Sub: 3. SENSITIVE DATA PROTECTION
Workpaper Group: C09060 - RAMP - CYBER - SDGE - SENSITIVE DATA PROTECTION
Unit Measure: Users Protected

Summary of Results (Constant 2025 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast					
Years		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Labor	Zero-Based	184	282	28	0	0	0	0	0	0	0	0
Non-Labor	Zero-Based	7,061	17,868	204	0	18,402	0	0	4,110	0	7,920	0
NSE	Zero-Based	0	0	0	0	0	0	0	0	0	0	0
Total		7,245	18,150	231	0	18,402	0	0	4,110	0	7,920	0
FTE	Zero-Based	0.6	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Units	Zero-Based	32,000	32,000	32,000	0	32,000	0	0	32,000	0	32,000	0

Business Purpose:

The Sensitive Data Protection program helps reduce the risk of unauthorized access to and disclosure of the Companies' information by understanding where sensitive data is stored, how it is transmitted, and how it is used. This helps to further protect customer and Company information. The activities for this area will help the Companies continue the prudent management of sensitive data.

Physical Description:

Sensitive Data Protection focuses on safeguarding confidential information across all environments by implementing advanced controls and monitoring mechanisms. Core activities include strengthening identity and access management (IAM), deploying data loss prevention (DLP) solutions, using data discovery tools to locate sensitive information, and securing mobile endpoints. IAM ensures that only authorized users have appropriate access to systems and data through policy-driven authentication and authorization frameworks. DLP technologies identify and classify sensitive data, monitor its movement within and outside the organization, and enforce policies to prevent unauthorized disclosure. Data discovery tools, such as crawlers, scan the environment to locate and tag sensitive information, enabling better governance and compliance. Mobile device security applies controls to protect against unauthorized access or data leakage from smartphones and tablets, safeguarding credentials, financial

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: C0906.0
Category: A. CYBERSECURITY
Category-Sub: 3. SENSITIVE DATA PROTECTION
Workpaper Group: C09060 - RAMP - CYBER - SDGE - SENSITIVE DATA PROTECTION
Unit Measure: Users Protected

information, and other business-critical data. This control area reduces the risk of data breaches, unauthorized disclosure, and regulatory non-compliance by combining identity governance, data visibility, and endpoint protection into a unified strategy for sensitive information security. The non-labor capital costs for this category are primarily for the hardware and software materials for cybersecurity systems and contractor services. The labor capital costs for this category are for the employees assigned to design, build, and deploy the new systems.

Project Justification:

The activities funded under this area address critical risks that could compromise the confidentiality, integrity, and availability of sensitive information. These include unauthorized access or identity failures, data manipulation or integrity breaches, cybersecurity control breakdowns, and human error. They also mitigate threats such as data corruption, system unavailability, theft or destruction of assets, and exposure of confidential business information including customer records. By implementing these measures, the organization reduces the likelihood and impact of data breaches, regulatory non-compliance, and operational disruptions tied to sensitive information security.

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: C0906.0
Category: A. CYBERSECURITY
Category-Sub: 3. SENSITIVE DATA PROTECTION
Workpaper Group: C09060 - RAMP - CYBER - SDGE - SENSITIVE DATA PROTECTION
Unit Measure: Users Protected

Forecast Methodology:

Labor - Zero-Based

A zero-based method was utilized to develop the labor forecast. A zero based forecast is accurate as rapidly changing cyber needs and lack of reliable historical averages require building costs from the ground up (zero-based), using current market quotes and SME estimates.

Non-Labor - Zero-Based

A zero-based method was utilized to develop the non-labor forecast. A zero based forecast is accurate as rapidly changing cyber needs and lack of reliable historical averages require building costs from the ground up (zero-based), using current market quotes and SME estimates.

NSE - Zero-Based

Not applicable.

Units - Zero-Based

Cybersecurity programs safeguard end user environments including workstations, mobile devices, identity platforms, and access controls. Each user represents an individual security footprint that requires ongoing identity lifecycle management (such as provisioning, authentication, and access administration) and continuous endpoint protection and monitoring. Using "users protected" as the unit appropriately ties costs to the scale of these activities. The underlying workload increases in direct proportion to the number of employees and contractors whose identities, devices, and access must be secured.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: C0906.0
Category: A. CYBERSECURITY
Category-Sub: 3. SENSITIVE DATA PROTECTION
Workpaper Group: C09060 - RAMP - CYBER - SDGE - SENSITIVE DATA PROTECTION
Unit Measure: Users Protected

Summary of Adjustments to Forecast:

In 2025 \$ (000)																		
Years	Base Forecast						Forecast Adjustments						Adjusted-Forecast					
	2026	2027	2028	2029	2030	2031	2026	2027	2028	2029	2030	2031	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NLbr	0	0	4,110	0	7,920	0	0	0	0	0	0	0	0	0	4,110	0	7,920	0
NSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	4,110	0	7,920	0	0	0	0	0	0	0	0	0	4,110	0	7,920	0
FTE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	32,000	0	32,000	0	0	0	0	0	0	0	0	0	32,000	0	32,000	0

Forecast Adjustment Details

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2026 Total	0	0	0	0	0.0	0
2027 Total	0	0	0	0	0.0	0
2028 Total	0	0	0	0	0.0	0
2029 Total	0	0	0	0	0.0	0
2030 Total	0	0	0	0	0.0	0
2031 Total	0	0	0	0	0.0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: C0906.0
Category: A. CYBERSECURITY
Category-Sub: 3. SENSITIVE DATA PROTECTION
Workpaper Group: C09060 - RAMP - CYBER - SDGE - SENSITIVE DATA PROTECTION
Unit Measure: Users Protected

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Recorded (Nominal \$)*					
Labor	77	136	21	0	0
Non-Labor	3,582	383	3	0	0
NSE	0	0	0	0	0
Total	3,659	519	24	0	0
FTE	0.3	0.7	0.1	0.0	0.0
Units	0	0	0	0	0
Adjustments (Nominal \$) **					
Labor	30	53	1	0	0
Non-Labor	1,135	13,334	181	0	18,402
NSE	0	0	0	0	0
Total	1,165	13,387	181	0	18,402
FTE	0.2	0.4	0.0	0.0	0.0
Units	32,000	32,000	32,000	0	32,000
Recorded-Adjusted (Nominal \$)					
Labor	107	189	22	0	0
Non-Labor	4,717	13,717	183	0	18,402
NSE	0	0	0	0	0
Total	4,824	13,906	205	0	18,402
FTE	0.5	1.1	0.1	0.0	0.0
Units	32,000	32,000	32,000	0	32,000
Vacation & Sick (Nominal \$)					
Labor	16	28	3	0	0

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: C0906.0
Category: A. CYBERSECURITY
Category-Sub: 3. SENSITIVE DATA PROTECTION
Workpaper Group: C09060 - RAMP - CYBER - SDGE - SENSITIVE DATA PROTECTION
Unit Measure: Users Protected

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	16	28	3	0	0
FTE	0.1	0.2	0.0	0.0	0.0
Units	0	0	0	0	0
Escalation to 2025\$					
Labor	61	66	3	0	0
Non-Labor	2,344	4,151	20	0	0
NSE	0	0	0	0	0
Total	2,405	4,216	23	0	0
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Recorded-Adjusted (Constant 2025\$)					
Labor	184	282	28	0	0
Non-Labor	7,061	17,868	204	0	18,402
NSE	0	0	0	0	0
Total	7,245	18,150	231	0	18,402
FTE	0.6	1.3	0.1	0.0	0.0
Units	32,000	32,000	32,000	0	32,000

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: C0906.0
Category: A. CYBERSECURITY
Category-Sub: 3. SENSITIVE DATA PROTECTION
Workpaper Group: C09060 - RAMP - CYBER - SDGE - SENSITIVE DATA PROTECTION
Unit Measure: Users Protected

Summary of Adjustments to Recorded:

		In Nominal \$(000)				
	Years	2021	2022	2023	2024	2025
Labor		30	53	1	0	0
Non-Labor		1,135	13,334	181	0	18,402
NSE		0	0	0	0	0
	Total	1,165	13,387	181	0	18,402
FTE		0.2	0.4	0.0	0.0	0.0
Units		32,000	32,000	32,000	0	32,000

Detail of Adjustments to Recorded in Nominal \$:

Year	Labor	NLbr	NSE	Total	FTE	Units
2021	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2021	30	1,135	0	1,165	0.2	0
Explanation:	M365 service mgmt and governance (T000026 - I/O 200553280) is moving from 009070 to C09060.000					
2021 Total	30	1,135	0	1,165	0.2	32,000

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: C0906.0
Category: A. CYBERSECURITY
Category-Sub: 3. SENSITIVE DATA PROTECTION
Workpaper Group: C09060 - RAMP - CYBER - SDGE - SENSITIVE DATA PROTECTION
Unit Measure: Users Protected

Year	Labor	NLbr	NSE	Total	FTE	Units
2022	0	0	0	0	0.0	32,000
Explanation:	Users Protected.					
2022	0	13,262	0	13,262	0.0	0
Explanation:	Moving to correct workpaper in Cybersecurity C09060.					
2022	53	72	0	125	0.4	0
Explanation:	M365 service mgmt and governance (T000026 - I/O 200553280) is moving from 009070 to C09060.000					
2022 Total	53	13,334	0	13,387	0.4	32,000
2023	0	0	0	0	0.0	32,000
Explanation:	Users Protected.					
2023	0	98	0	98	0.0	0
Explanation:	Moving to correct workpaper in Cybersecurity 00906C.					
2023	0.873	83	0	84	0.0	0
Explanation:	M365 service mgmt and governance (T000026 - I/O 200553280) is moving from 009070 to C09060.000					
2023 Total	0.873	181	0	181	0.0	32,000
2024 Total	0	0	0	0	0.0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: C0906.0
Category: A. CYBERSECURITY
Category-Sub: 3. SENSITIVE DATA PROTECTION
Workpaper Group: C09060 - RAMP - CYBER - SDGE - SENSITIVE DATA PROTECTION
Unit Measure: Users Protected

Year	Labor	NLbr	NSE	Total	FTE	Units
2025	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2025	0	18,402	0	18,402	0.0	0
Explanation:	Moving Miicrosoft Agreement costs to correct workpaper in Cybersecurity C09060.					
2025 Total	0	18,402	0	18,402	0.0	32,000

Note: Totals may include rounding differences.

**Beginning of Workpaper Sub Details for
Workpaper Group C09060**

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: C0906.0
Category: A. CYBERSECURITY
Category-Sub: 3. SENSITIVE DATA PROTECTION
Workpaper Group: C09060 - RAMP - CYBER - SDGE - SENSITIVE DATA PROTECTION
Workpaper Detail: C09060.001 - C09060.001 - Sensitive Data Protection On Premise Software
Unit Measure: Users Protected

In-Service Date: 11/30/2028

Description:

This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	4,110	0	0	0
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>0</u>	<u>4,110</u>	<u>0</u>	<u>0</u>	<u>0</u>
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	32,000	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: C0906.0
Category: A. CYBERSECURITY
Category-Sub: 3. SENSITIVE DATA PROTECTION
Workpaper Group: C09060 - RAMP - CYBER - SDGE - SENSITIVE DATA PROTECTION
Workpaper Detail: C09060.002 - C09060.002 - Sensitive Data Protection On Premise Software
Unit Measure: Users Protected

In-Service Date: 11/30/2030

Description:

This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	0	0	7,920	0
NSE	0	0	0	0	0	0
Total	0	0	0	0	7,920	0
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	32,000	0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group C09060

San Diego Gas & Electric Company
2028 GRC - APPLICATION
Capital Workpapers

The supplemental workpaper includes a table that presents the composition of forecasted costs. Related projects are grouped by similar work types or business areas for clarity. The table further disaggregates costs by forecast year and provides a breakdown of labor and non-labor components, which together comprise the total forecast for this workpaper.

FORECAST YR	DESCRIPTION (PUBLIC)	MITIGATION	LABOR	NON-LABOR	TOTAL
2028	This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.	SENSITIVE DATA PROTECTION	-	4,110,000	4,110,000
2030	This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.	SENSITIVE DATA PROTECTION	-	7,920,000	7,920,000
Grand Total			-	12,030,000	12,030,000

Beginning of Workpaper Group
D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Unit Measure: Users Protected

Summary of Results (Constant 2025 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast					
Years		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Labor	Zero-Based	23	15	9	470	163	0	936	774	1,003	2,027	1,269
Non-Labor	Zero-Based	402	485	1,876	3,560	166	0	2,590	7,319	2,845	1,945	7,880
NSE	Zero-Based	0	0	0	0	0	0	0	0	0	0	0
Total		425	499	1,885	4,030	329	0	3,526	8,093	3,848	3,972	9,149
FTE	Zero-Based	0.1	0.1	0.1	2.8	1.0	0.0	5.7	4.7	6.0	12.3	7.7
Units	Zero-Based	32,000	32,000	32,000	32,000	32,000	0	32,000	32,000	32,000	32,000	32,000

Business Purpose:

The OT Cybersecurity program focuses on securing the electric and gas control systems for the Companies . The OT environment is essential to critical business functions for the safe and reliable energy delivery to customers throughout the service territory. OT Cybersecurity requires a specialized approach in order to balance operational needs with cybersecurity risk.

Physical Description:

The Companies' cybersecurity program prioritizes operational technology activities , including the management of its existing technology assets, improving threat intelligence and vulnerability management, and securing the communication infrastructure. The Companies are focused on maintaining a secure operational environment to support safe, reliable gas and electric systems and services. The OT Cybersecurity activities protect Industrial Control Systems (ICS) and Supervisory Control and Data Acquisition (SCADA) such as ensuring proper network segmentation, multifactor authentication (MFA), secure remote connection capabilities, network anomaly detection, advanced security information and event management (SIEM) and analytics, environment network access control, environment endpoint detection response and malware defense. Multi-Factor Authentication (MFA) is a network authentication method that requires the user to provide two or more verification factors to gain access to a

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Unit Measure: Users Protected

resource such as an application, online account, or a private network. Network segmentation is a network security technique that divides a network into smaller, distinct sub-networks that enable network teams to compartmentalize the sub-networks and deliver unique security controls and services to each sub-network. SIEM captures event data from a wide range of sources across an organization's entire network. Logs and flow data from users, applications, assets, cloud environments, and networks is collected, stored and analyzed in real-time, giving cybersecurity teams the ability to automatically manage their network's event log and network flow data in one centralized location. Malware defense protects against intrusive software that is designed to damage and destroy computers and computer systems. Examples of common malware include viruses, worms, Trojan viruses, spyware, adware, and ransomware. The non-labor capital costs for this category are primarily for hardware and software.

Project Justification:

The activities funded under this area address the following: ransomware, infrastructure or availability failure, access control or confidentiality failure, malicious software intrusions, cybersecurity control failures, operational system failures, human error, disruption of energy flow systems, data corruption or unavailability, and serious injuries and fatalities.

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Unit Measure: Users Protected

Forecast Methodology:

Labor - Zero-Based

A zero-based method was utilized to develop the labor forecast. A zero based forecast is accurate as rapidly changing cyber needs and lack of reliable historical averages require building costs from the ground up (zero-based), using current market quotes and SME estimates.

Non-Labor - Zero-Based

A zero-based method was utilized to develop the non-labor forecast. A zero based forecast is accurate as rapidly changing cyber needs and lack of reliable historical averages require building costs from the ground up (zero-based), using current market quotes and SME estimates.

NSE - Zero-Based

Not applicable.

Units - Zero-Based

Cybersecurity programs safeguard end user environments including workstations, mobile devices, identity platforms, and access controls. Each user represents an individual security footprint that requires ongoing identity lifecycle management (such as provisioning, authentication, and access administration) and continuous endpoint protection and monitoring. Using "users protected" as the unit appropriately ties costs to the scale of these activities. The underlying workload increases in direct proportion to the number of employees and contractors whose identities, devices, and access must be secured.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Unit Measure: Users Protected

Summary of Adjustments to Forecast:

In 2025 \$ (000)																		
Years	Base Forecast						Forecast Adjustments						Adjusted-Forecast					
	2026	2027	2028	2029	2030	2031	2026	2027	2028	2029	2030	2031	2026	2027	2028	2029	2030	2031
Labor	0	920	761	971	1,993	1,249	0	16	13	32	34	20	0	936	774	1,003	2,027	1,269
NLbr	0	2,590	7,319	2,845	1,945	7,880	0	0	0	0	0	0	0	2,590	7,319	2,845	1,945	7,880
NSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3,510	8,080	3,816	3,938	9,129	0	16	13	32	34	20	0	3,526	8,093	3,848	3,972	9,149
FTE	0.0	5.7	4.7	6.0	12.3	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	4.7	6.0	12.3	7.7
Units	0	32,000	32,000	32,000	32,000	32,000	0	0	0	0	0	0	0	32,000	32,000	32,000	32,000	32,000

Forecast Adjustment Details

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2026 Total	0	0	0	0	0.0	0
2027	16	0	0	16	0.0	0
2027 Total	16	0	0	16	0.0	0
2028	13	0	0	13	0.0	0

Explanation: Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.

Explanation: Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Unit Measure: Users Protected

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2028 Total	13	0	0	13	0.0	0
2029	32	0	0	32	0.0	0
Explanation: Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.						
2029 Total	32	0	0	32	0.0	0
2030	34	0	0	34	0.0	0
Explanation: Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.						
2030 Total	34	0	0	34	0.0	0
2031	20	0	0	20	0.0	0
Explanation: Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.						
2031 Total	20	0	0	20	0.0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Unit Measure: Users Protected

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Recorded (Nominal \$)*					
Labor	13	10	7	399	142
Non-Labor	269	372	1,690	3,432	166
NSE	0	0	0	0	0
Total	282	382	1,697	3,831	308
FTE	0.1	0.1	0.1	2.4	0.9
Units	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
Units	32,000	32,000	32,000	32,000	32,000
Recorded-Adjusted (Nominal \$)					
Labor	13	10	7	399	142
Non-Labor	269	372	1,690	3,432	166
NSE	0	0	0	0	0
Total	282	382	1,697	3,831	308
FTE	0.1	0.1	0.1	2.4	0.9
Units	32,000	32,000	32,000	32,000	32,000
Vacation & Sick (Nominal \$)					
Labor	2	1	1	54	21

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Unit Measure: Users Protected

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	2	1	1	54	21
FTE	0.0	0.0	0.0	0.4	0.1
Units	0	0	0	0	0
Escalation to 2025\$					
Labor	8	3	1	17	0
Non-Labor	134	113	186	128	0
NSE	0	0	0	0	0
Total	141	116	187	145	0
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Recorded-Adjusted (Constant 2025\$)					
Labor	23	15	9	470	163
Non-Labor	402	485	1,876	3,560	166
NSE	0	0	0	0	0
Total	425	499	1,885	4,030	329
FTE	0.1	0.1	0.1	2.8	1.0
Units	32,000	32,000	32,000	32,000	32,000

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Unit Measure: Users Protected

Summary of Adjustments to Recorded:

In Nominal \$(000)					
Years	2021	2022	2023	2024	2025
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
Units	32,000	32,000	32,000	32,000	32,000

Detail of Adjustments to Recorded in Nominal \$:

Year	Labor	NLbr	NSE	Total	FTE	Units
2021	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2021 Total	0	0	0	0	0.0	32,000
2022	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Unit Measure: Users Protected

Year	Labor	NLbr	NSE	Total	FTE	Units
2022 Total	0	0	0	0	0.0	32,000
2023	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2023 Total	0	0	0	0	0.0	32,000
2024	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2024 Total	0	0	0	0	0.0	32,000
2025	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2025 Total	0	0	0	0	0.0	32,000

Note: Totals may include rounding differences.

**Beginning of Workpaper Sub Details for
Workpaper Group D09060**

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Workpaper Detail: D09060.001 - D09060.001 - Operational Technology (OT) Security Software
Unit Measure: Users Protected

In-Service Date: 04/30/2028

Description:

Investment in our enterprise licenses for our firewalls which function as our primary perimeter defense capability.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	3,520	0	0	0
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>0</u>	<u>3,520</u>	<u>0</u>	<u>0</u>	<u>0</u>
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	32,000	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Workpaper Detail: D09060.002 - D09060.002 - Operational Technology (OT) Security Software
Unit Measure: Users Protected

In-Service Date: 04/30/2031

Description:

Investment in our enterprise licenses for our firewalls which function as our primary perimeter defense capability.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	0	0	0	5,280
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>5,280</u>
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0	32,000

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Workpaper Detail: D09060.004 - D09060.004 - Operational Technology (OT) Security On Premise Hardware
Unit Measure: Users Protected

In-Service Date: 12/31/2028

Description:

Enhancement replacement or upgrades to our core firewall infrastructure hardware. This hardware enables our primary line of defense against malicious traffic.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	133	0	0	0
Non-Labor	0	0	654	0	0	0
NSE	0	0	0	0	0	0
Total	0	0	787	0	0	0
FTE	0.0	0.0	0.8	0.0	0.0	0.0
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Workpaper Detail: D09060.006 - D09060.006 - Operational Technology (OT) Security
Unit Measure: Users Protected

In-Service Date: 12/31/2027

Description:

Investments in security technologies platforms and services that enable security controls, visibility of threats and vulnerabilities within our operational technology ("OT") environments.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	936	0	0	0	0
Non-Labor	0	0	0	0	0	0
NSE	0	0	0	0	0	0
Total	0	936	0	0	0	0
FTE	0.0	5.7	0.0	0.0	0.0	0.0
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Workpaper Detail: D09060.007 - D09060.007 - Operational Technology (OT) Security
Unit Measure: Users Protected

In-Service Date: 12/31/2028

Description:

Investments in security technologies platforms and services that enable security controls, visibility of threats and vulnerabilities within our operational technology ("OT") environments.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	641	0	0	0
Non-Labor	0	0	0	0	0	0
NSE	0	0	0	0	0	0
Total	0	0	641	0	0	0
FTE	0.0	0.0	3.9	0.0	0.0	0.0
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Workpaper Detail: D09060.008 - D09060.008 - Operational Technology (OT) Security
Unit Measure: Users Protected

In-Service Date: 12/31/2029

Description:

Investments in security technologies platforms and services that enable security controls, visibility of threats and vulnerabilities within our operational technology ("OT") environments.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	1,003	0	0
Non-Labor	0	0	0	0	0	0
NSE	0	0	0	0	0	0
Total	0	0	0	1,003	0	0
FTE	0.0	0.0	0.0	6.0	0.0	0.0
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Workpaper Detail: D09060.009 - D09060.009 - Operational Technology (OT) Security
Unit Measure: Users Protected

In-Service Date: 12/31/2030

Description:

Investments in security technologies platforms and services that enable security controls, visibility of threats and vulnerabilities within our operational technology ("OT") environments.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	2,027	0
Non-Labor	0	0	0	0	0	0
NSE	0	0	0	0	0	0
Total	0	0	0	0	2,027	0
FTE	0.0	0.0	0.0	0.0	12.3	0.0
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Workpaper Detail: D09060.010 - D09060.010 - Operational Technology (OT) Security
Unit Measure: Users Protected

In-Service Date: 12/31/2031

Description:

Investments in security technologies platforms and services that enable security controls, visibility of threats and vulnerabilities within our operational technology ("OT") environments.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	1,269
Non-Labor	0	0	0	0	0	0
NSE	0	0	0	0	0	0
Total	0	0	0	0	0	1,269
FTE	0.0	0.0	0.0	0.0	0.0	7.7
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Workpaper Detail: D09060.011 - D09060.011 - Operational Technology (OT) Security Software
Unit Measure: Users Protected

In-Service Date: 12/31/2027

Description:

Investments in security technologies platforms and services that enable security controls, visibility of threats and vulnerabilities within our operational technology ("OT") environments.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	2,590	0	0	0	0
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>2,590</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	32,000	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Workpaper Detail: D09060.012 - D09060.012 - Operational Technology (OT) Security Software
Unit Measure: Users Protected

In-Service Date: 12/31/2028

Description:

Investments in security technologies platforms and services that enable security controls, visibility of threats and vulnerabilities within our operational technology ("OT") environments.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	3,145	0	0	0
NSE	0	0	0	0	0	0
Total	0	0	3,145	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Workpaper Detail: D09060.013 - D09060.013 - Operational Technology (OT) Security Software
Unit Measure: Users Protected

In-Service Date: 12/31/2029

Description:

Investments in security technologies platforms and services that enable security controls, visibility of threats and vulnerabilities within our operational technology ("OT") environments.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	0	2,845	0	0
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>0</u>	<u>0</u>	<u>2,845</u>	<u>0</u>	<u>0</u>
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	32,000	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Workpaper Detail: D09060.014 - D09060.014 - Operational Technology (OT) Security Software
Unit Measure: Users Protected

In-Service Date: 12/31/2030

Description:

Investments in security technologies platforms and services that enable security controls, visibility of threats and vulnerabilities within our operational technology ("OT") environments.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	0	0	1,945	0
NSE	0	0	0	0	0	0
Total	0	0	0	0	1,945	0
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	32,000	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: D0906.0
Category: A. CYBERSECURITY
Category-Sub: 4. OPERATIONAL TECHNOLOGY CYBERSECURITY
Workpaper Group: D09060 - RAMP - CYBER - SDGE - OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY
Workpaper Detail: D09060.015 - D09060.015 - Operational Technology (OT) Security Software
Unit Measure: Users Protected

In-Service Date: 12/31/2031

Description:

Investments in security technologies platforms and services that enable security controls, visibility of threats and vulnerabilities within our operational technology ("OT") environments.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	0	0	0	2,600
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2,600</u>
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group D09060

San Diego Gas & Electric Company
2028 GRC - APPLICATION
Capital Workpapers

The supplemental workpaper includes a table that presents the composition of forecasted costs. Related projects are grouped by similar work types or business areas for clarity. The table further disaggregates costs by forecast year and provides a breakdown of labor and non-labor components, which together comprise the total forecast for this workpaper.

FORECAST YR	DESCRIPTION (PUBLIC)	MITIGATION	LABOR	NON-LABOR	TOTAL
2027	Investments in security technologies, platforms and services that enable security controls, visibility of threats and vulnerabilities within our operational technology ("OT") environments.	OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY	919,917	2,590,000	3,509,917
2028	Enhancement, replacement or upgrades to our core firewall infrastructure hardware. This hardware enables our primary line of defense against malicious traffic.	OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY	131,000	654,000	785,000
2028	Investment in our enterprise licenses for our firewalls which function as our primary perimeter defense capability.	OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY	-	3,520,000	3,520,000
2028	Investments in security technologies, platforms and services that enable security controls, visibility of threats and vulnerabilities within our operational technology ("OT") environments.	OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY	630,000	3,145,000	3,775,000
2029	Investments in security technologies, platforms and services that enable security controls, visibility of threats and vulnerabilities within our operational technology ("OT") environments.	OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY	971,024	2,845,000	3,816,024
2030	Investments in security technologies, platforms and services that enable security controls, visibility of threats and vulnerabilities within our operational technology ("OT") environments.	OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY	1,993,154	1,945,000	3,938,154
2031	Investment in our enterprise licenses for our firewalls which function as our primary perimeter defense capability.	OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY	-	5,280,000	5,280,000
2031	Investments in security technologies, platforms and services that enable security controls, visibility of threats and vulnerabilities within our operational technology ("OT") environments.	OPERATIONAL TECHNOLOGY (OT) CYBERSECURITY	1,249,270	2,600,000	3,849,270
Grand Total			5,894,364	22,579,000	28,473,364

Beginning of Workpaper Group
E09060 - RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY
LIFECYCLE MANAGEMENT

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: E0906.0
Category: A. CYBERSECURITY
Category-Sub: 5. INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Group: E09060 - RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Unit Measure: Users Protected

Summary of Results (Constant 2025 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast					
Years		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Labor	Zero-Based	80	17	135	13	0	0	0	0	0	184	184
Non-Labor	Zero-Based	1,160	1,436	3,016	117	0	0	0	2,740	0	6,181	902
NSE	Zero-Based	0	0	0	0	0	0	0	0	0	0	0
Total		1,240	1,453	3,151	130	0	0	0	2,740	0	6,365	1,086
FTE	Zero-Based	0.4	0.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	1.1	1.1
Units	Zero-Based	32,000	32,000	32,000	32,000	0	0	0	32,000	0	32,000	32,000

Business Purpose:

A core discipline of a robust Cybersecurity program is the structured lifecycle management of technology platforms , including hardware and software, at defined intervals to minimize risks from obsolete systems. This approach ensures that security controls remain effective and that the environment is protected against vulnerabilities introduced by outdated technologies. Lifecycle management addresses both technology and security obsolescence. Security obsolescence occurs when cybersecurity tools, controls, or processes lose effectiveness or introduce new vulnerabilities . Legacy platforms can expose the environment to exploitation and lateral movement by threat actors. Failure to maintain current, supported technologies undermines the effectiveness of modern security investments due to compatibility gaps . Replacing legacy platforms is an essential risk management strategy. The investment in Infrastructure and Platforms Security Lifecycle Management is a core operational requirement for maintaining the security, reliability, and regulatory compliance of utility services, and is recognized as an essential component of responsible utility management.

Physical Description:

This mitigation area encompasses the systematic management of technology platforms and infrastructure to maintain secure, reliable, and resilient

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: E0906.0
Category: A. CYBERSECURITY
Category-Sub: 5. INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Group: E09060 - RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Unit Measure: Users Protected

utility operations. Activities include the scheduled replacement and upgrade of hardware, operating systems, middleware, and applications to ensure all components remain supported and protected against emerging threats. The program also covers continuous system maintenance, including configuration management, vulnerability remediation, and security patching, to sustain effective security controls throughout the lifecycle of each asset. Architecture and design efforts focus on ensuring high availability and service continuity for critical business systems, with redundancy and failover capabilities built into the environment. Investments in this area include acquisition of hardware and software for cybersecurity systems, integration of advanced security technologies, and deployment of platforms that support secure operations. Labor resources are dedicated to engineering, implementing, and maintaining these systems, with specialized teams responsible for lifecycle planning, risk assessment, and operational support.

Project Justification:

The activities funded under this area are designed to prevent and mitigate risks including unauthorized remote access and control, data manipulation or integrity failures, infrastructure or system outages, access control or confidentiality breaches, malicious software intrusions, cybersecurity control failures, operational system disruptions, interruption of energy flow, data corruption or loss, theft or destruction of systems and data, and exposure of sensitive company and customer information. These measures are essential for maintaining secure, reliable, and resilient utility operations.

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: E0906.0
Category: A. CYBERSECURITY
Category-Sub: 5. INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Group: E09060 - RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Unit Measure: Users Protected

Forecast Methodology:

Labor - Zero-Based

A zero-based method was utilized to develop the labor forecast. A zero based forecast is accurate as rapidly changing cyber needs and lack of reliable historical averages require building costs from the ground up (zero-based), using current market quotes and SME estimates.

Non-Labor - Zero-Based

A zero-based method was utilized to develop the non-labor forecast. A zero based forecast is accurate as rapidly changing cyber needs and lack of reliable historical averages require building costs from the ground up (zero-based), using current market quotes and SME estimates.

NSE - Zero-Based

Not applicable.

Units - Zero-Based

Cybersecurity programs safeguard end user environments including workstations, mobile devices, identity platforms, and access controls. Each user represents an individual security footprint that requires ongoing identity lifecycle management (such as provisioning, authentication, and access administration) and continuous endpoint protection and monitoring. Using "users protected" as the unit appropriately ties costs to the scale of these activities. The underlying workload increases in direct proportion to the number of employees and contractors whose identities, devices, and access must be secured.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: E0906.0
Category: A. CYBERSECURITY
Category-Sub: 5. INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Group: E09060 - RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Unit Measure: Users Protected

Summary of Adjustments to Forecast:

In 2025 \$ (000)																		
Years	Base Forecast						Forecast Adjustments						Adjusted-Forecast					
	2026	2027	2028	2029	2030	2031	2026	2027	2028	2029	2030	2031	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	181	181	0	0	0	0	3	3	0	0	0	0	184	184
NLbr	0	0	2,740	0	6,181	902	0	0	0	0	0	0	0	0	2,740	0	6,181	902
NSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	2,740	0	6,362	1,083	0	0	0	0	3	3	0	0	2,740	0	6,365	1,086
FTE	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
Units	0	0	32,000	0	32,000	32,000	0	0	0	0	0	0	0	0	32,000	0	32,000	32,000

Forecast Adjustment Details

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2026 Total	0	0	0	0	0.0	0
2027 Total	0	0	0	0	0.0	0
2028 Total	0	0	0	0	0.0	0
2029 Total	0	0	0	0	0.0	0
2030	3	0	0	3	0.0	0

Explanation: Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: E0906.0
Category: A. CYBERSECURITY
Category-Sub: 5. INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Group: E09060 - RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Unit Measure: Users Protected

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2030 Total	3	0	0	3	0.0	0
2031	3	0	0	3	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2031 Total	3	0	0	3	0.0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: E0906.0
Category: A. CYBERSECURITY
Category-Sub: 5. INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Group: E09060 - RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Unit Measure: Users Protected

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Recorded (Nominal \$)*					
Labor	46	11	107	11	0
Non-Labor	775	1,103	2,717	113	0
NSE	0	0	0	0	0
Total	821	1,114	2,824	124	0
FTE	0.3	0.1	0.3	0.1	0.0
Units	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
Units	32,000	32,000	32,000	32,000	0
Recorded-Adjusted (Nominal \$)					
Labor	46	11	107	11	0
Non-Labor	775	1,103	2,717	113	0
NSE	0	0	0	0	0
Total	821	1,114	2,824	124	0
FTE	0.3	0.1	0.3	0.1	0.0
Units	32,000	32,000	32,000	32,000	0
Vacation & Sick (Nominal \$)					
Labor	7	2	15	1	0

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: E0906.0
Category: A. CYBERSECURITY
Category-Sub: 5. INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Group: E09060 - RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Unit Measure: Users Protected

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Non-Labor	0	0	0	0	0
NSE	0	0	0	0	0
Total	7	2	15	1	0
FTE	0.1	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Escalation to 2025\$					
Labor	26	4	13	0	0
Non-Labor	385	334	299	4	0
NSE	0	0	0	0	0
Total	412	338	313	5	0
FTE	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0
Recorded-Adjusted (Constant 2025\$)					
Labor	80	17	135	13	0
Non-Labor	1,160	1,436	3,016	117	0
NSE	0	0	0	0	0
Total	1,240	1,453	3,151	130	0
FTE	0.4	0.1	0.3	0.1	0.0
Units	32,000	32,000	32,000	32,000	0

* After company-wide exclusions of Non-GRC costs

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

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: E0906.0
Category: A. CYBERSECURITY
Category-Sub: 5. INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Group: E09060 - RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Unit Measure: Users Protected

Summary of Adjustments to Recorded:

In Nominal \$(000)					
Years	2021	2022	2023	2024	2025
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
Units	32,000	32,000	32,000	32,000	0

Detail of Adjustments to Recorded in Nominal \$:

Year	Labor	NLbr	NSE	Total	FTE	Units
2021	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2021 Total	0	0	0	0	0.0	32,000
2022	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: E0906.0
Category: A. CYBERSECURITY
Category-Sub: 5. INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Group: E09060 - RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Unit Measure: Users Protected

Year	Labor	NLbr	NSE	Total	FTE	Units
2022 Total	0	0	0	0	0.0	32,000
2023	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2023 Total	0	0	0	0	0.0	32,000
2024	0	0	0	0	0.0	32,000
Explanation:	Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.					
2024 Total	0	0	0	0	0.0	32,000
2025 Total	0	0	0	0	0.0	0

Note: Totals may include rounding differences.

**Beginning of Workpaper Sub Details for
Workpaper Group E09060**

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: E0906.0
Category: A. CYBERSECURITY
Category-Sub: 5. INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Group: E09060 - RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Detail: E09060.001 - E09060.001 - Infrastructure and Platforms Security Lifecycle Management On Premise Hardware
Unit Measure: Users Protected

In-Service Date: 12/31/2030

Description:

Enhancement replacement or upgrades to our core firewall infrastructure hardware. This hardware enables our primary line of defense against malicious traffic.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	184	0
Non-Labor	0	0	0	0	901	0
NSE	0	0	0	0	0	0
Total	0	0	0	0	1,085	0
FTE	0.0	0.0	0.0	0.0	1.1	0.0
Units	0	0	0	0	32,000	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: E0906.0
Category: A. CYBERSECURITY
Category-Sub: 5. INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Group: E09060 - RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Detail: E09060.002 - E09060.002 - Infrastructure and Platforms Security Lifecycle Management On Premise Hardware
Unit Measure: Users Protected

In-Service Date: 12/31/2031

Description:

Enhancement replacement or upgrades to our core firewall infrastructure hardware. This hardware enables our primary line of defense against malicious traffic.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	184
Non-Labor	0	0	0	0	0	902
NSE	0	0	0	0	0	0
Total	0	0	0	0	0	1,086
FTE	0.0	0.0	0.0	0.0	0.0	1.1
Units	0	0	0	0	0	32,000

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: E0906.0
Category: A. CYBERSECURITY
Category-Sub: 5. INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Group: E09060 - RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Detail: E09060.003 - E09060.003 - Infrastructure and Platforms Security Lifecycle Management On Premise License
Unit Measure: Users Protected

In-Service Date: 11/30/2028

Description:

This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	2,740	0	0	0
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>0</u>	<u>2,740</u>	<u>0</u>	<u>0</u>	<u>0</u>
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	32,000	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: E0906.0
Category: A. CYBERSECURITY
Category-Sub: 5. INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Group: E09060 - RAMP - CYBER - SDGE - INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT
Workpaper Detail: E09060.004 - E09060.004 - Infrastructure and Platforms Security Lifecycle Management On Premise License
Unit Measure: Users Protected

In-Service Date: 11/30/2030

Description:

This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	0	0	5,280	0
NSE	0	0	0	0	0	0
Total	0	0	0	0	5,280	0
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group E09060

San Diego Gas & Electric Company
2028 GRC - APPLICATION
Capital Workpapers

The supplemental workpaper includes a table that presents the composition of forecasted costs. Related projects are grouped by similar work types or business areas for clarity. The table further disaggregates costs by forecast year and provides a breakdown of labor and non-labor components, which together comprise the total forecast for this workpaper.

FORECAST YR	DESCRIPTION (PUBLIC)	MITIGATION	LABOR	NON-LABOR	TOTAL
2028	This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.	INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT	-	2,740,000	2,740,000
2030	This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.	INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT	-	5,280,000	5,280,000
2030	Enhancement, replacement or upgrades to our core firewall infrastructure hardware. This hardware enables our primary line of defense against malicious traffic.	INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT	181,000	901,000	1,082,000
2031	Enhancement, replacement or upgrades to our core firewall infrastructure hardware. This hardware enables our primary line of defense against malicious traffic.	INFRASTRUCTURE AND PLATFORMS SECURITY LIFECYCLE MANAGEMENT	181,000	902,000	1,083,000
Grand Total			362,000	9,823,000	10,185,000

Beginning of Workpaper Group
F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: F0906.0
Category: A. CYBERSECURITY
Category-Sub: 6. EMERGING THREAT DEFENCES
Workpaper Group: F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES
Unit Measure: Users Protected

Summary of Results (Constant 2025 \$ in 000s):

Forecast Method		Adjusted Recorded					Adjusted Forecast					
Years		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Labor	Zero-Based	0	0	0	0	0	0	0	901	0	0	669
Non-Labor	Zero-Based	0	0	0	0	0	0	0	5,790	0	2,640	4,620
NSE	Zero-Based	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	6,691	0	2,640	5,289
FTE	Zero-Based	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	4.1
Units	Zero-Based	0	0	0	0	0	0	0	32,000	0	32,000	32,000

Business Purpose:

Emerging Threat Defenses enables preemptive risk mitigation against advanced cyber threats that exceed the detection and response capabilities of legacy systems. It supports enterprise resilience by reducing exposure to novel attack vectors, preserving operational continuity across IT/ OT domains, and supporting regulatory alignment with evolving threat landscapes. The program enhances strategic risk posture through intelligence-driven controls, minimizing financial, reputational, and safety impacts from high-complexity cyber events.

Physical Description:

The types of emerging threat defense activities include a range of specialized cybersecurity efforts designed to counter advanced , unconventional threats that traditional systems cannot reliably detect or contain. These activities are implemented across both IT and operational technology environments to support business continuity and reduce exposure to high-impact cyber risks. Key efforts include the deployment of AI-driven threat detection and response systems, which monitor network and system behavior in real time and automatically respond to suspicious activity. The program also develops and integrates quantum-resilient cryptographic protocols to protect sensitive data against future threats posed by quantum computing. To address unknown and rapidly evolving vulnerabilities , zero-day exploit containment platforms are used to isolate and neutralize threats

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: F0906.0
Category: A. CYBERSECURITY
Category-Sub: 6. EMERGING THREAT DEFENCES
Workpaper Group: F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES
Unit Measure: Users Protected

before they can spread. The program includes disinformation monitoring and countermeasures that track and mitigate coordinated campaigns targeting public-facing assets and stakeholder trust. These activities form a cohesive defense strategy that adapts to emerging threats and aligns with the organization's broader risk management objectives.

Project Justification:

The activities funded under this area address the following: manipulated data or integrity failure, infrastructure or availability failure, access control or confidentiality failure, malicious software intrusions, cybersecurity control failures, operational system failures, equipment loss or theft, human error, data corruption or unavailability, theft or destruction of systems and data, and exposure of sensitive business information including customer records.

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: F0906.0
Category: A. CYBERSECURITY
Category-Sub: 6. EMERGING THREAT DEFENCES
Workpaper Group: F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES
Unit Measure: Users Protected

Forecast Methodology:

Labor - Zero-Based

A zero-based method was utilized to develop the labor forecast. A zero based forecast is accurate as rapidly changing cyber needs and lack of reliable historical averages require building costs from the ground up (zero-based), using current market quotes and SME estimates.

Non-Labor - Zero-Based

A zero-based method was utilized to develop the non-labor forecast. A zero based forecast is accurate as rapidly changing cyber needs and lack of reliable historical averages require building costs from the ground up (zero-based), using current market quotes and SME estimates.

NSE - Zero-Based

Not applicable.

Units - Zero-Based

Cybersecurity programs safeguard end user environments including workstations, mobile devices, identity platforms, and access controls. Each user represents an individual security footprint that requires ongoing identity lifecycle management (such as provisioning, authentication, and access administration) and continuous endpoint protection and monitoring. Using "users protected" as the unit appropriately ties costs to the scale of these activities. The underlying workload increases in direct proportion to the number of employees and contractors whose identities, devices, and access must be secured.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: F0906.0
Category: A. CYBERSECURITY
Category-Sub: 6. EMERGING THREAT DEFENCES
Workpaper Group: F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES
Unit Measure: Users Protected

Summary of Adjustments to Forecast:

In 2025 \$ (000)																		
Years	Base Forecast						Forecast Adjustments						Adjusted-Forecast					
	2026	2027	2028	2029	2030	2031	2026	2027	2028	2029	2030	2031	2026	2027	2028	2029	2030	2031
Labor	0	0	886	0	0	659	0	0	15	0	0	10	0	0	901	0	0	669
NLbr	0	0	5,790	0	2,640	4,620	0	0	0	0	0	0	0	0	5,790	0	2,640	4,620
NSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	6,676	0	2,640	5,279	0	0	15	0	0	10	0	0	6,691	0	2,640	5,289
FTE	0.0	0.0	5.5	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	4.1
Units	0	0	32,000	0	32,000	32,000	0	0	0	0	0	0	0	0	32,000	0	32,000	32,000

Forecast Adjustment Details

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2026 Total	0	0	0	0	0.0	0
2027 Total	0	0	0	0	0.0	0
2028	15	0	0	15	0.0	0
2028 Total	15	0	0	15	0.0	0
2029 Total	0	0	0	0	0.0	0

Explanation: Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: F0906.0
Category: A. CYBERSECURITY
Category-Sub: 6. EMERGING THREAT DEFENCES
Workpaper Group: F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES
Unit Measure: Users Protected

Year	Labor (Zero-Based)	NLbr (Zero-Based)	NSE (Zero-Based)	Total	FTE	Units (Zero-Based)
2030 Total	0	0	0	0	0.0	0
2031	10	0	0	10	0.0	0
Explanation:	Reflects changes in connection with the compensation modernization initiative. Please refer to the Compensation and Benefits testimony, Ex. SCG-16/SDGE-20.					
2031 Total	10	0	0	10	0.0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: F0906.0
Category: A. CYBERSECURITY
Category-Sub: 6. EMERGING THREAT DEFENCES
Workpaper Group: F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES
Unit Measure: Users Protected

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
Recorded (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
Units	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
Units	0	0	0	0	0
Recorded-Adjusted (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
Units	0	0	0	0	0
Vacation & Sick (Nominal \$)					
Labor	0	0	0	0	0

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: F0906.0
Category: A. CYBERSECURITY
Category-Sub: 6. EMERGING THREAT DEFENCES
Workpaper Group: F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES
Unit Measure: Users Protected

Determination of Adjusted-Recorded (in thousands):

	2021	2022	2023	2024	2025
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
Units	0	0	0	0	0
Escalation to 2025\$					
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
Units	0	0	0	0	0
Recorded-Adjusted (Constant 2025\$)					
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
Units	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.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: F0906.0
Category: A. CYBERSECURITY
Category-Sub: 6. EMERGING THREAT DEFENCES
Workpaper Group: F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES
Unit Measure: Users Protected

Summary of Adjustments to Recorded:

In Nominal \$(000)					
Years	2021	2022	2023	2024	2025
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
Units	0	0	0	0	0

Detail of Adjustments to Recorded in Nominal \$:

Year	Labor	NLbr	NSE	Total	FTE	Units
2021 Total	0	0	0	0	0.0	0
2022 Total	0	0	0	0	0.0	0
2023 Total	0	0	0	0	0.0	0
2024 Total	0	0	0	0	0.0	0
2025	0	0	0	0	0.0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: F0906.0
Category: A. CYBERSECURITY
Category-Sub: 6. EMERGING THREAT DEFENCES
Workpaper Group: F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES
Unit Measure: Users Protected

Year	Labor	NLbr	NSE	Total	FTE	Units
Explanation: Using users protected as the metric ties costs directly to the scale of these activities, which grow proportionally with the number of employees and contractors.						
2025 Total	0	0	0	0	0.0	0

Note: Totals may include rounding differences.

**Beginning of Workpaper Sub Details for
Workpaper Group F09060**

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: F0906.0
Category: A. CYBERSECURITY
Category-Sub: 6. EMERGING THREAT DEFENCES
Workpaper Group: F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES
Workpaper Detail: F09060.001 - F09060.001 - Emerging Threat Defenses
Unit Measure: Users Protected

In-Service Date: 12/31/2028

Description:

This initiative enhances the company's cybersecurity posture by leveraging intelligence communities, trusted partnerships, and advanced analytics to strengthen awareness of emerging cyber threats. Through collaboration with industry and government threat-sharing networks, combined with the use of automation and artificial intelligence, the company proactively identifies and mitigates potential risks before they impact operations. By improving threat visibility, response, and prevention, this initiative supports system reliability, safeguards sensitive data, and reinforces the safety and resilience of critical infrastructure that serves the public.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	901	0	0	0
Non-Labor	0	0	0	0	0	0
NSE	0	0	0	0	0	0
Total	0	0	901	0	0	0
FTE	0.0	0.0	5.5	0.0	0.0	0.0
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: F0906.0
Category: A. CYBERSECURITY
Category-Sub: 6. EMERGING THREAT DEFENCES
Workpaper Group: F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES
Workpaper Detail: F09060.002 - F09060.002 - Emerging Threat Defenses
Unit Measure: Users Protected

In-Service Date: 12/31/2031

Description:

This initiative enhances the company's cybersecurity posture by leveraging intelligence communities, trusted partnerships, and advanced analytics to strengthen awareness of emerging cyber threats. Through collaboration with industry and government threat-sharing networks, combined with the use of automation and artificial intelligence, the company proactively identifies and mitigates potential risks before they impact operations. By improving threat visibility, response, and prevention, this initiative supports system reliability, safeguards sensitive data, and reinforces the safety and resilience of critical infrastructure that serves the public.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	669
Non-Labor	0	0	0	0	0	0
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>669</u>
FTE	0.0	0.0	0.0	0.0	0.0	4.1
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: F0906.0
Category: A. CYBERSECURITY
Category-Sub: 6. EMERGING THREAT DEFENCES
Workpaper Group: F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES
Workpaper Detail: F09060.003 - F09060.003 - Emerging Threat Defenses Software
Unit Measure: Users Protected

In-Service Date: 12/31/2028

Description:

This initiative enhances the company's cybersecurity posture by leveraging intelligence communities, trusted partnerships, and advanced analytics to strengthen awareness of emerging cyber threats. Through collaboration with industry and government threat-sharing networks, combined with the use of automation and artificial intelligence, the company proactively identifies and mitigates potential risks before they impact operations. By improving threat visibility, response, and prevention, this initiative supports system reliability, safeguards sensitive data, and reinforces the safety and resilience of critical infrastructure that serves the public.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	4,420	0	0	0
NSE	0	0	0	0	0	0
Total	0	0	4,420	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	32,000	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: F0906.0
Category: A. CYBERSECURITY
Category-Sub: 6. EMERGING THREAT DEFENCES
Workpaper Group: F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES
Workpaper Detail: F09060.004 - F09060.004 - Emerging Threat Defenses Software
Unit Measure: Users Protected

In-Service Date: 12/31/2031

Description:

This initiative enhances the company's cybersecurity posture by leveraging intelligence communities, trusted partnerships, and advanced analytics to strengthen awareness of emerging cyber threats. Through collaboration with industry and government threat-sharing networks, combined with the use of automation and artificial intelligence, the company proactively identifies and mitigates potential risks before they impact operations. By improving threat visibility, response, and prevention, this initiative supports system reliability, safeguards sensitive data, and reinforces the safety and resilience of critical infrastructure that serves the public.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	0	0	0	4,620
NSE	0	0	0	0	0	0
Total	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>4,620</u>
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0	32,000

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: F0906.0
Category: A. CYBERSECURITY
Category-Sub: 6. EMERGING THREAT DEFENCES
Workpaper Group: F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES
Workpaper Detail: F09060.005 - F09060.005 - Emerging Threat Defenses On Premise License
Unit Measure: Users Protected

In-Service Date: 11/30/2028

Description:

This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	1,370	0	0	0
NSE	0	0	0	0	0	0
Total	0	0	1,370	0	0	0
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	0	0

Note: Totals may include rounding differences.

Area: CYBERSECURITY
Witness: Omar Zevallos
Budget Code: F0906.0
Category: A. CYBERSECURITY
Category-Sub: 6. EMERGING THREAT DEFENCES
Workpaper Group: F09060 - RAMP - CYBER - SDGE - EMERGING THREAT DEFENSES
Workpaper Detail: F09060.006 - F09060.006 - Emerging Threat Defenses On Premise License
Unit Measure: Users Protected

In-Service Date: 11/30/2030

Description:

This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.

Forecast In 2025 \$(000)

Years	2026	2027	2028	2029	2030	2031
Labor	0	0	0	0	0	0
Non-Labor	0	0	0	0	2,640	0
NSE	0	0	0	0	0	0
Total	0	0	0	0	2,640	0
FTE	0.0	0.0	0.0	0.0	0.0	0.0
Units	0	0	0	0	32,000	0

Note: Totals may include rounding differences.

Supplemental Workpapers for Workpaper Group F09060

San Diego Gas & Electric Company
2028 GRC - APPLICATION
Capital Workpapers

The supplemental workpaper includes a table that presents the composition of forecasted costs. Related projects are grouped by similar work types or business areas for clarity. The table further disaggregates costs by forecast year and provides a breakdown of labor and non-labor components, which together comprise the total forecast for this workpaper.

FORECAST YR	DESCRIPTION (PUBLIC)	MITIGATION	LABOR	NON-LABOR	TOTAL
2028	This initiative enhances the company's cybersecurity posture by leveraging intelligence communities, trusted partnerships, and advanced analytics to strengthen awareness of emerging cyber threats. Through collaboration with industry and government threat-sharing networks, combined with the use of automation and artificial intelligence, the company proactively identifies and mitigates potential risks before they impact operations. By improving threat visibility, response, and prevention, this initiative supports system reliability, safeguards sensitive data, and reinforces the safety and resilience of critical infrastructure that serves the public.	EMERGING THREAT DEFENSES	886,000	4,420,000	5,306,000
2028	This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.	EMERGING THREAT DEFENSES	-	1,370,000	1,370,000
2030	This enterprise technology agreement provides secure productivity, collaboration, and cloud services that are essential to daily business and operational functions. It enhances cybersecurity through advanced identity management, data protection, and threat detection capabilities, helping safeguard sensitive information and critical systems. By improving system reliability, communication, and continuity of operations, this platform supports the company's commitment to safety, security, and resilient infrastructure.	EMERGING THREAT DEFENSES	-	2,640,000	2,640,000
2031	This initiative enhances the company's cybersecurity posture by leveraging intelligence communities, trusted partnerships, and advanced analytics to strengthen awareness of emerging cyber threats. Through collaboration with industry and government threat-sharing networks, combined with the use of automation and artificial intelligence, the company proactively identifies and mitigates potential risks before they impact operations. By improving threat visibility, response, and prevention, this initiative supports system reliability, safeguards sensitive data, and reinforces the safety and resilience of critical infrastructure that serves the public.	EMERGING THREAT DEFENSES	658,706	4,620,000	5,278,706
Grand Total			1,544,706	13,050,000	14,594,706