

Company: San Diego Gas & Electric Company (U 902 M)
Proceeding: 2024 General Rate Case
Application: A.22-05-015 /-016 (consolidated)
Exhibit: SDG&E-226

**REBUTTAL TESTIMONY OF
OMAR ZEVALLOS
(CYBERSECURITY)**

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



May 2023

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**REBUTTAL TESTIMONY OF
OMAR ZEVALLOS
(CYBERSECURITY)**

I. SUMMARY OF DIFFERENCES

| TOTAL O&M - Constant 2021 (\$000) | | | |
|--|---------------------------|---------------------------|---------------|
| | Base Year 2021 | Test Year 2024 | Change |
| SDG&E | 13,792 | 16,377 | 2,585 |
| CAL ADVOCATES | 13,792 | 13,845 | 307 |

| TOTAL CAPITAL - Constant 2021 (\$000) | | | | | |
|--|-------------|-------------|-------------|--------------|-------------------|
| | 2022 | 2023 | 2024 | Total | Difference |
| SDG&E | 8,424 | 9,660 | 9,660 | 27,744 | |
| CAL ADVOCATES | 8,424 | 9,660 | 9,660 | 27,744 | 0 |

II. INTRODUCTION

This rebuttal testimony (1) adopts the direct testimony of Lance Mueller and workpapers supporting San Diego Gas & Electric Company’s (SDG&E) request for Cybersecurity costs,¹ and (2) addresses the following testimony from other parties:

- The Public Advocates Office of the California Public Utilities Commission (Cal Advocates) as submitted by L. Mark Waterworth (Ex. CA-11), dated March 27, 2023.²

As a preliminary matter, the absence of a response to any particular issue in this rebuttal testimony does not imply or constitute agreement by SDG&E with the proposal or contention made by these or other parties. The forecasts contained in SDG&E’s direct testimony, performed at the project level, are based on sound estimates of its revenue requirements at the time of testimony preparation.

¹ Revised Prepared Direct Testimony of Lance R. Mueller (Cybersecurity) (August 2022) (Exhibit (Ex.) SDG&E-26-R (Mueller)); Workpapers to Prepared Direct Testimony of Lance R. Mueller on Behalf of San Diego Gas & Electric Company (May 2022) (Ex. SDG&E-26-WP (Mueller)); Revised Capital Workpapers to Prepared Direct Testimony of Lance R. Mueller on Behalf of San Diego Gas & Electric Company (August 2022) (Ex. SDG&E-26-CWP-R (Mueller)).

² Public Advocates Office Report on the Results of Operations for Southern California Gas Company and San Diego Gas & Electric Company Test Year 2024 General Rate Case, SCG and SDG&E Supply Management/Logistics & Supplier Diversity, Fleet Services, Real Estate & Facility Operations, Environmental Services, Information Technology, Cybersecurity; and SDG&E Clean Transportation (March 27, 2023) (Ex. CA-11 (Waterworth)).

1 SDG&E disagrees with Cal Advocates’ opposition to the incremental expenses for
2 SDG&E operations and maintenance (O&M). SDG&E seeks to strengthen, not weaken,
3 cybersecurity operations. Recruiting, hiring, and retaining skilled technical talent continues to
4 pose a challenge across all industries and the problem is increasingly becoming urgent within the
5 cybersecurity community. Evolving threats and an increased focus on vulnerable systems and
6 applications, make expedient and timely maintenance of such systems critically important to
7 cyber operations.

8 The requests for incremental O&M to support cybersecurity initiatives and operations
9 seeks to help close the gap between SDG&E’s current cyber capable workforce and our required
10 capacity, and to ensure appropriate support of technology capabilities is in place.

11 As stated in its Cybersecurity testimony, “[c]ybersecurity support services directly
12 contribute to San Diego Gas & Electric Company’s (SDG&E) ability to provide secure, safe, and
13 reliable service for customers while maintaining a safe work environment for employees by
14 managing cybersecurity risk.”³

15 **A. Cal Advocates**

16 The following is a summary of Cal Advocates’ positions:⁴

- 17 • Cal Advocates does not oppose SDG&E’s Non-Shared O&M forecasted
18 expenditures.
- 19 • Cal Advocates does not oppose SDG&E’s Test Year (TY) 2024 capital
20 expenditure forecasts.
- 21 • Cal Advocates recommends an overall \$2,532 million reduction from
22 SDG&E’s TY forecast of \$13,845 million for Shared O&M expenditures,
23 comprised of a \$1,632 million adjustment for SDG&E Labor and \$900
24 adjustment for Non-Labor based on Cal Advocates’ assertion that SDG&E
25 has not shown it met its 2022 forecasted labor and non-labor expenditures.
26

³ Ex. SDG&E-26-R (Mueller) at LRM-iii.

⁴ Ex. CA-11 (Waterworth) at 71 – 82.

1 **III. GENERAL REBUTTAL**

2 As reflected in SDG&E’s prepared direct testimony, SDG&E created its Shared O&M
3 forecast after thorough review and consideration of current business conditions, cybersecurity
4 industry conditions, and the current threat landscape in the energy and utilities industry.⁵
5 SDG&E disagrees with Cal Advocate’s position that the TY2024 Cybersecurity Shared Labor
6 and Non-Labor forecast is unsupported. SDG&E also disagrees with Cal Advocate’s position
7 that SDG&E has not demonstrated it has a need for 6.8 FTEs and \$900k in Non-Labor in
8 TY2024.⁶

9 SDG&E continues to make critical investments to support cybersecurity activities and
10 capital and O&M labor costs to implement and maintain technology-based cybersecurity
11 activities. As outlined and discussed in the Cybersecurity testimony, Cybersecurity threats have
12 continued to evolve, increase, and become more complex and impactful year over year.
13 Adversaries continue to use an evolving and increasingly more sophisticated set of tools and
14 strategies to conduct attacks on the energy sector. Their suite of capabilities includes advanced
15 malware, complex phishing attacks, identification of non-public vulnerabilities, ransomware,
16 among others.⁷

17 Some of the fundamental operational activities required to support and effectively
18 manage cybersecurity capabilities include but are not limited to, the following investments:

- 19 • A security policy framework
- 20 • Risk management and assessments
- 21 • Compliance and vulnerability management
- 22 • Cybersecurity awareness and training
- 23 • Security assessment
- 24 • Business continuity and disaster recovery
- 25 • Access management
- 26 • Protective technologies (Network, User, Application)
- 27 • System authentication – public key infrastructure (PKI)

⁵ See generally Ex. SDG&E-26-R (Mueller).

⁶ Ex. CA-11 (Waterworth) at 72 – 75.

⁷ Ex. SDG&E-26-R (Mueller) at LRM-15.

- Security Operations Center
 - Monitor security-related activities in systems and applications
 - Anomaly detection
 - Security event detection and escalation
 - Monitor detection infrastructure systems to investigate security events
 - Incident response
 - Exercises/drills⁸

IV. REBUTTAL TO CAL ADVOCATES’ O&M PROPOSALS

A. Non-Shared Services O&M

| NON-SHARED O&M - Constant 2021 (\$000) | | | |
|---|---------------------------|---------------------------|---------------|
| | Base Year 2021 | Test Year 2024 | Change |
| SDG&E | 19 | 19 | 0 |
| CAL ADVOCATES | 19 | 19 | 0 |

Cal Advocates does not dispute SDG&E’s non-shared O&M forecasted costs.

B. Shared Services O&M

| SHARED O&M - Constant 2021 (\$000) | | | |
|---|---------------------------|---------------------------|---------------|
| | Base Year 2021 | Test Year 2024 | Change |
| SDG&E | 13,773 | 16,358 | 2,585 |
| CAL ADVOCATES | 13,773 | 13,826 | 53 |

1. Cal Advocates

Cal Advocates opposes SDG&E’s forecast, and states “Cal Advocates opposes SDG&E’s 2024 forecast related to i) non-hiring of forecasted personnel, ii) failure to spend any of its forecasted professional services costs.”⁹

Cal Advocates states that there is uncertainty whether SDG&E needs the incremental O&M funding, stating “[s]ince SDG&E failed to show any expenditures related to this 2022

⁸ *Id.* at LRM-3 – LRM-4.

⁹ Ex. CA-11 (Waterworth) at 71.

1 incremental increase, this creates a level of uncertainty whether SDG&E needs the incremental
2 funding or not.”¹⁰ SDG&E disagrees with this statement on several levels.

3 First, on March 13, 2023, SDG&E provided its 2022 recorded expenditures, in
4 compliance with *Administrative Law Judge’s Ruling Modifying The Procedural Schedule And*
5 *Partly Denying Sempra Utilities’ Joint Motion To Amend The Assigned Commissioner’s Scoping*
6 *Memorandum And Ruling*, dated December 6, 2022. Cal Advocates asserts, however, that
7 although SDG&E indicated that it was actively recruiting for Cybersecurity personnel in 2022,¹¹
8 because SDG&E did not reflect that it had actually hired the FTEs it forecasted for 2022 or
9 provide data on its 2022 non-labor recorded adjusted expenditures prior to the March 13, 2023
10 date ordered by the Administrative Law Judge to provide 2022 recorded data, and therefore
11 SDG&E has not met its burden of proof.¹² Cal Advocates appears to admit that notwithstanding
12 SDG&E’s timely provision of its 2022 recorded adjusted data on March 13, 2023 in accordance
13 with the December 6, 2022 ALJ Ruling and statement that it was prepared to respond to follow-
14 up data requests thereafter, Cal Advocates did not have sufficient time to obtain and review
15 SDG&E Cybersecurity’s 2022 O&M data before filing its testimony on March 27, 2023.¹³ This
16 should not change the result. The GRC forecast was developed according to the Rate Case Plan,
17 which does not contemplate the use of 2022 recorded data and the TY 2024 forecasts were not
18 developed using that information. SDG&E is not permitted to revise its forecasts using that data,
19 either up or down, once the application is filed. The 2022 recorded actual costs provide only
20 another data point for intervenors to consider. Cal Advocates has provided no support for its
21 recommendation to reduce SDG&E’s Test Year 2024 O&M forecast, and it should therefore be
22 disregarded.

23 Second, SDG&E has demonstrated there are serious, evolving cybersecurity threats that
24 need to be aggressively managed to protect customer and Company data. Cal Advocates fails to
25 recognize the rapidly expanding and dangerous nature of cyber threats and the critical

¹⁰ *Id.* at 73.

¹¹ *See id.* at 72 (citation omitted) (citing SDG&E response to PAO-SDGE-059-LMW, Q. 1, which states: “SDG&E has not hired the 6.8 FTEs. Recruitment for Cybersecurity personnel is currently underway and will continue through the year.”).

¹² *See id.* at 72 – 75.

¹³ *See id.* at 73 and 75.

1 infrastructure protection or Operational Technology (OT) cybersecurity needed to address the
2 added risk to our communities, that would result if SDG&E does not make these incremental
3 investments for critical support functions, to protect its customer information and sensitive data.

4 SDG&E plans to address the increasing risk through the planned capital investments
5 activities. Cal Advocates does not oppose SDG&E's Capital forecast yet fails to recognize that
6 the increased labor and non-labor O&M activities are directly correlated to increases in capital
7 activities, which Cal Advocates agrees is needed to respond to the current and evolving threat
8 landscape. The capital activities that SDG&E identifies in its Cybersecurity direct testimony
9 (Ex. SDG&E-26-R (Mueller)) will address the ongoing threats that the utility's systems face in
10 the areas of Threat Detection, Incident Response and OT cybersecurity but will be unachievable
11 if there is not enough labor to implement them. Cal Advocates proposed reductions to O&M
12 would eliminate the funding for additional internal and contracted labor needed to execute the
13 additional cyber activities, challenging SDG&E's ability to properly monitor and manage against
14 cyber threats.

15 The incremental increase of \$1.632 million for O&M labor is driven by and directly
16 relates to the increased capital investments putting upward pressure on the need to invest in
17 internal labor with an understanding of our systems, applications and the energy business. Within
18 the timeframe of 2022 to 2023, various conditions have continued to strain the availability of
19 skilled cybersecurity professionals. Across various industries, including energy and utilities there
20 remains high attrition rates of skilled cybersecurity professionals and SDG&E has found that the
21 marketplace for cybersecurity professionals remains extremely competitive, often challenging
22 critical services and public sectors by competing with higher salaries offered through privately
23 held and even start-up companies.

24 While there have been delays in procuring the needed resources, the hiring of skilled
25 resources in an increasingly geographically diverse cyber workforce, continues to be challenging
26 and has led the Company to take proactive measures such as temporarily filling these roles with
27 contractors (a non-labor expense). This is a model that is not sustainable and could increasingly
28 add risk to cybersecurity operations. Regardless, the Company is actively recruiting and hiring
29 staff to fill the needs of these cybersecurity capabilities and will continue in its active recruitment
30 of additional employees to meet the demands of the Capital activities described in direct
31 testimony and workpapers, in the interim using contracted labor to meet cybersecurity needs.

1 The incremental increase for O&M non-labor of \$0.953 million, directly relates to
 2 technology product maintenance activities and the previously use of contract labor. A primary
 3 component driving non-labor cost increases is due to costs required by product, application and
 4 tool providers to ensure operational stability of their technologies. These costs support providing
 5 required professional services tied to maintenance of their products, and ensure SDG&E is using
 6 the most current version of the products utilized to protect the systems and capabilities.
 7 SDG&E’s ability to keep systems up to date, ensures that its cybersecurity tools do not become
 8 obsolete or end up adding increased risks due to their own vulnerabilities (e.g., software that has
 9 not been patched/updated to current version and may be exploited by threat actors).

10 The Commission should disregard Cal Advocates recommendation and find that
 11 SDG&E’s forecast for additional Cybersecurity O&M labor and non-labor (contract and
 12 professional services) is reasonable and should be adopted in its entirety. Cal Advocates
 13 recommended reduction of \$2,532 million to O&M activities would severely underfund
 14 Cybersecurity’s important on-going activities.

15 **V. REBUTTAL TO PARTIES’ CAPITAL PROPOSALS**

| TOTAL CAPITAL - Constant 2021 (\$000) | | | | | |
|--|-------------|-------------|-------------|--------------|-------------------|
| | 2022 | 2023 | 2024 | Total | Difference |
| SDG&E | 8,424 | 9,660 | 9,660 | 27,744 | |
| CAL ADVOCATES | 8,424 | 9,660 | 9,660 | 27,744 | 0 |

16 **A. Capital Costs**

17 Cal Advocates does not dispute SDG&E’s requested Cybersecurity capital expenditures
 18 for TY2024.

19 **VI. CONCLUSION**

20 SDG&E believes safety, reliability, and sustainability are inextricably linked and
 21 fundamental to the Company’s ability to continue to successfully operate. The cybersecurity
 22 operations are directly tied to these aspects of providing safe, reliable energy while protecting
 23 customer information and ensuring compliance with regulation.

24 Cal Advocates did not oppose SDG&E’s forecast for capital expenditures, however,
 25 SDG&E’s request for incremental operations and maintenance supports the need to recruit, hire
 26 and retain skilled cybersecurity talent who will, maintain systems, applications and capabilities
 27 critical to securing the business and enable SDG&E to stay ahead of threat actors by mitigating
 28 vulnerabilities.

1 SDG&E has demonstrated that its forecasted costs are not excessive, rather a requirement
2 based on current business conditions, cybersecurity industry trends and threats currently facing
3 the energy and utilities industry. Cal Advocates provides no support for its recommendation to
4 substantially reduce SDG&E's TY 2024 forecast. Nor has it shown that operations and
5 maintenance costs are not rising in the face of evolving cybersecurity threats, or that SDG&E
6 does not need to increase the number of skilled, experienced and knowledgeable FTEs as
7 described here and in SDG&E's testimony and workpapers.

8 SDG&E has demonstrated that:

- 9 • SDG&E's TY 2024 O&M forecast is reasonable;
- 10 • SDG&E's TY 2024 Capital forecast is reasonable; and
- 11 • Costs associated with the Cybersecurity operations and maintenance
12 forecasts are supported by the Company's need to recruit, hire and retain
13 skilled cybersecurity workforce, and to operationally maintain its systems,
14 applications and capabilities.

15 This concludes my prepared rebuttal testimony.

1 **VII. WITNESS QUALIFICATIONS**

2 My name is Omar Zevallos. My business address is 8680 Balboa Ave., San Diego, CA
3 92123. My title is Director, Network & Cybersecurity Technology Services. As the Director of
4 Network & Cybersecurity Technology Services, I am responsible for overseeing all aspects of
5 these critical services across SDG&E, SoCalGas, and Corporate Center.

6 Previous to my current role, I have had leadership positions including Field Engineer,
7 Operations and Engineering Manager for Electric Regional Operations, Manager of Energy
8 Management Systems, Manager of OT Networks, and Sr. Group Product Manager. I am also a
9 US Navy veteran and a licensed Professional Engineer in the State of California.

10 I am a graduate of San Diego State University, where I earned a Bachelor of Science in
11 Electrical Engineering, and Norwich University, where I received a Master of Science Degree in
12 Organizational Leadership.

13 I have not previously testified before the Commission.

APPENDIX A
GLOSSARY OF TERMS

| ACRONYM | DEFINITION |
|----------------|--|
| Commission | California Public Utilities Commission |
| D. | Decision |
| GRC | General Rate Case |
| PKI | Public Key Infrastructure |
| SDG&E | San Diego Gas & Electric Company |
| SoCalGas | Southern California Gas Company |
| TY | Test Year |