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Exhibit: SDG&E-231

REBUTTAL TESTIMONY
OF KENNETH J. DEREMER
(SAFETY MANAGEMENT SYSTEM:
SAFETY, RISK, & ASSET MANAGEMENT)

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



May 2023

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**REBUTTAL TESTIMONY OF
KENNETH J. DEREMER
(SAFETY MANAGEMENT SYSTEM: SAFETY, RISK, AND ASSET MANAGEMENT)**

I. SUMMARY OF DIFFERENCES¹

Total O&M - Constant 2021 (\$000)			
	Base Year 2021	Test Year 2024	Change
SDG&E (Non-Shared)	12,074	15,762	3,688
Cal Advocates (Non-Shared)	12,074	13,586	1,512
SDG&E (Shared)	1,023	1,249	226
Cal Advocates (Shared)	1,023	1,249	226

Total Capital - Constant 2021 (\$000)					
	2022	2023	2024	Total	Difference
SDG&E	6,300	6,818	6,817	19,935	
CAL ADVOCATES	5,474	5,992	5,991	17,457	(2,478)

II. REVISED FORECASTS

As described further below, San Diego Gas & Electric Company (SDG&E) has made corrections to its TY 2024 forecast. The revised O&M (Shared & Non-Shared) forecasts are as follows:

Total O&M Revised Forecast - Constant 2021 (\$000)			
	Base Year 2021	Test Year 2024	Change
SDG&E (Non-Shared)	12,074	15,109	3,035
SDG&E (Shared)	1,023	1,239	216

As described further below, SDG&E is making corrections to its TY 2024 Capital forecast. The revised Capital costs are as follows:

Total Capital Revised Forecast - Constant 2021 (\$000)				
	2022	2023	2024	Total
SDG&E	2,200	2,373	2,377	6,945

¹ This section shows differences based on the forecast presented in my revised direct testimony.

1 **III. INTRODUCTION**

2 This rebuttal testimony regarding SDG&E’s request for Safety Management System
3 (SMS): Safety, Risk, and Asset Management addresses the following testimony from other
4 parties:

- 5 • The Public Advocates Office of the California Public Utilities
6 Commission (Cal Advocates) as submitted by Refat Amin
7 (Exhibit (Ex.) CA-14), dated March 27, 2023.
- 8 • Cal Advocates as submitted by Sophie Chia and Joyce Lee (Ex. CA-19),
9 dated March 27, 2023.
- 10 • The Utility Reform Network (TURN), as submitted by Garrick Jones
11 (Ex. TURN-10), dated March 27, 2023.
- 12 • Utility Consumers Action Network (UCAN) as submitted by Dr. Eric
13 Woychik, dated March 27, 2023.

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

19 This rebuttal addresses SDG&E’s proposed recovery of incremental costs to: 1) advance
20 the maturity of the Enterprise Safety Management System (SMS); 2) advance and sustain a
21 comprehensive program for Asset Management that aligns with SDG&E’s overall safety and risk
22 management programs; and 3) establish a Contractor Field Safety Management Overhead Pool to
23 support increased safety oversight. My rebuttal focuses on the need for additional resources and
24 funding to further implement, mature, and sustain these critical and emerging programs to reduce
25 safety risk for SDG&E infrastructure, employees, contractors, and the public, improve reliability,
26 and advance California energy policy objectives in direct alignment with recent Commission
27 decisions and directives.

28 This rebuttal also addresses business justification issues related to: 1) five technology
29 capital projects requested by the Asset Management department, and 2) the request of two
30 additional fleet vehicles requested by the Safety department.

1 Lastly, this rebuttal provides an update to forecasts in two areas: 1) Safety Management
2 Systems - O&M and 2) Contractor Field Safety Management Overhead Pool – Capital. These
3 forecasts are being updated based on errors that have been discovered in the calculations
4 originally provided in my direct testimony. Further explanation is contained in the applicable
5 sections of this rebuttal.

6 As described in my direct testimony, SDG&E began development and operationalization
7 of its company-wide Safety Management System in 2020.² SDG&E’s SMS further aligns and
8 integrates safety management, risk management, and asset management across the entire
9 Company by applying a holistic and integrative approach to safety and expanding beyond
10 “traditional” occupational safety principles to include enhanced focus on public safety, asset
11 safety, system safety, cyber safety, and psychological safety for improved safety performance
12 and safety culture. This approach has strong support from the Commission, the Office of Energy
13 Infrastructure, and the Commission’s Safety Policy Division.

14 **A. CAL ADVOCATES³**

15 Cal Advocates does not object to any specific initiative or activity requested in direct
16 testimony but recommends disallowances to the incremental O&M funding above 2021 recorded
17 levels needed for sustaining and advancing SDG&E’s safety management and asset management
18 systems.

19 The following is a summary of Cal Advocates’ positions on SDG&E’s Safety
20 Management System request:

- 21 • Proposes a \$903,000 disallowance to SDG&E’s non-labor costs.
- 22 • Bases its \$1.4 million estimate for TY 2024 on a forecast methodology
23 that “normalizes” SDG&E’s TY 2024 incremental forecast over the four-
24 year cycle.
- 25 • Recommends adjustments to recorded costs that Cal Advocates’ considers
26 to be one-time expenses in 2019 and 2020.

² Ex. SDG&E-31-R (Deremer) at KJD-7.

³ March 27, 2023, Public Advocates Office Report on Safety & Risk Management Systems, People and Culture Department, and Administrative and General, Ex. CA-14 (Amin).

1 The following is a summary of Cal Advocates' positions on SDG&E's Asset
2 Management request:

- 3 • Proposes a disallowance of \$1,273,000 in SDG&E's costs for Asset
4 Management. Embedded within that disallowance is a breakdown to the
5 following functional areas:
 - 6 ○ \$362,000 – Asset Data Systems and Records Management
 - 7 ○ \$577,000 – Asset Integrity Management Program
 - 8 ○ \$334,000 – Asset Risk and Accountability Reporting
- 9 • Proposes a disallowance of incremental Full Time Equivalents (FTEs) to
10 implement the Commission's regulatory and accounting requirements for
11 Risk Spend Accountability Reporting.
- 12 • Proposes a disallowance of incremental FTEs and non-labor costs that
13 support SDG&E's asset management system, including asset data
14 governance and management systems, and risk-informed asset
15 management decision-making tools.

16 The following is a summary of Cal Advocates' positions on SDG&E's Contractor Field
17 Safety Management Overhead Pool requests:

- 18 • Recommends a forecast of \$5.474 million in 2022, \$5.992 million in 2023,
19 and \$5.991 million in 2024.
- 20 • Recommends reducing SDG&E's TY forecast by \$0.826 million to
21 disallow a portion of the incremental costs.

22 **B. UTILITY CONSUMERS ACTION NETWORK (UCAN)⁴**

23 UCAN's testimony addresses SDG&E Information Technology (IT) capital projects.
24 Although my direct testimony supported the justification for several IT projects, the associated
25 costs are sponsored in SDG&E's IT Testimony.⁵ This rebuttal testimony addresses the overall
26 business justification issues, while the Information Technology rebuttal testimony (Ex. SDGE-
27 225) addresses the topic of technology obsolescence.

⁴ March 27, 2023, Prepared Direct Testimony of Dr. Eric Charles Woychik on behalf of UCAN, Ex. UCAN (Woychik).

⁵ Ex. SDG&E-25, Ch. 1-2 (Gordon/Ballard/Exon); Ex. SDG&E-225 (Gordon/Exon).

1 The following is a summary of UCAN's positions on SDG&E's capital projects
2 requested by Asset Management and sponsored by the IT witness area (Ex. SDG&E-25 and
3 Ex. SDG&E-225):

- 4 • Recommends reducing Capital forecast in 2024 for the following projects:
 - 5 ○ Field Mobility
 - 6 ○ Asset Investment Prioritization (AIP)
 - 7 ○ Work Management Enhancements
 - 8 ○ Field Hardware Replacement
 - 9 ○ GIS Modernization

10 **C. THE UTILITY REFORM NETWORK (TURN)⁶**

11 Although my direct testimony supported the justification for two Fleet Vehicle additions,
12 the associated costs are sponsored in SDG&E's Fleet Services direct testimony.⁷ This rebuttal
13 testimony will specifically address the overall business justification for the two fleet vehicle
14 additions for the Safety department, while SDG&E's Fleet Services rebuttal testimony will
15 (Exhibit SDGE-222) address the cost forecast.

16 The following is a summary of TURN's position on Fleet Services:

- 17 • Recommends a disallowance on Fleet Vehicle Additions.

18 **IV. REBUTTAL TO PARTIES' O&M PROPOSALS**

19 **A. NON-SHARED SERVICES O&M (REVISED)**

NON-SHARED O&M (Revised) - Constant 2021 (\$000)			
	Base Year 2021	Test Year 2024	Change
SDG&E	12,074	15,109	3,035
CAL ADVOCATES	12,074	13,586	1,512
SHARED O&M (Revised) - Constant 2021 (\$000)			
	Base Year 2021	Test Year 2024	Change
SDG&E	1,023	1,239	216
CAL ADVOCATES	1,023	1,249	226

20
⁶ March 27, 2023, Prepared Direct Testimony of Garrick Jones on Fleet Services and Compensation Benefits, on behalf of TURN, Ex. TURN-10.

⁷ Ex. SDG&E-22-R (Alvarez).

1 The following corrections, reflected in the total amounts in the table above, have
2 been made to SDG&E's Test Year for Non-Shared Services:

- 3 • Reduction of \$650,000 in 1SM001.000.
 - 4 ○ (\$225,000) Adjustment for costs associated with the development and
 - 5 implementation of a Management of Change (MOC) platform.
 - 6 ○ (\$225,000) Adjustment for costs associated with development and
 - 7 implementation of Data Analytics platform.
 - 8 ○ (\$200,000) Adjustment to remove non-recurring consulting costs incurred
 - 9 in BY 2021.
- 10 • Reduction of \$3,000 in 1SM005.000 to remove Affiliate Compliance Audit costs.

11 The following corrections have been made to SDG&E's Test Year for Shared Services:

- 12 • (\$10,000) Adjustment in 2100-0214.000 for Safety Barometer expense, SDG&E
- 13 requested \$60,000 for TY 2024; the correct amount is \$50,000.

14 **1. Safety Management System (SMS)**

15 **a. Cal Advocates**

16 **i. SDG&E's Updated Forecast of \$1,654,000 is Reasonable**
17 **and Necessary to Advance the Maturity of the**
18 **Enterprise SMS**

19 Cal Advocates' recommendation for SDG&E's Test Year O&M forecast for its Safety
20 Management System (SMS) is \$1.4 million,⁸ which is a \$903,000 reduction from SDG&E's TY
21 2024 forecast as presented in direct testimony. As described below, SDG&E is reducing its TY
22 2024 forecast from \$2,303,000 to \$1,654,000, which reduces the difference in SDG&E's forecast
23 versus Cal Advocates to \$254,000.

24 SDG&E's SMS is founded on a de-centralized organizational structure, meaning SDG&E
25 did not build out a full SMS organization but instead relies on a few key centralized resources
26 that facilitate and partner with the cross-functional operational teams and the SMS Governance

⁸ Ex. CA-14 (Amin) at 45, 48.

1 Team⁹ to implement and operationalize the SMS. SDG&E's TY 2024 forecast is for two
2 additional FTEs – for a total of four FTEs – dedicated to the oversight, implementation, and
3 advancement of SDG&E's SMS. Cal Advocates does not dispute SDG&E's requested
4 incremental labor forecast. However, Cal Advocates proposes disallowances in non-labor costs
5 that are critical to completing and maintaining key elements of the SMS, including training,
6 process implementation, data analytics, benchmarking, evaluation, and continuous improvement.
7 Given SDG&E's de-centralized SMS organizational structure, technology resources are crucial
8 to enable consistency in process implementation and information flow. SDG&E's incremental
9 request will further enhance and optimize existing safety programs by providing the tools to
10 collectively manage across the organization. As stated in direct testimony, "incremental costs
11 presented here include additional technology and resources to fully deploy and maintain the
12 enterprise-wide SMS for improved safety performance and safety culture."¹⁰

13 SDG&E has not sought nor received funding for SMS in prior GRCs. While SDG&E
14 prioritized internal resources to develop its SMS beginning in 2020, additional technology and
15 supporting resources are needed for effective and sustainable deployment to reduce employee,
16 contractor, and public safety risk, and advance State¹¹ and Commission¹² safety culture
17 objectives. SDG&E's TY 2024 forecast includes an incremental funding request to support these
18 activities.

⁹ The SMS Governance Team is a cross-functional team comprised of business leaders (generally at the Director level) representing SDG&E's employee safety, contractor safety, customer safety, public safety, operational safety, and system safety departments. The SMS Governance Team members serve as organizational representatives for each of the Five Pillars of Safety to solicit and provide stakeholder input, oversee development and implementation, make recommendations to SMS Executive Steering Team, and promote overall awareness and support throughout the organization.

¹⁰ Ex. SDG&E-31-R (Deremer) at KJD-23-24.

¹¹ Assembly Bill (AB) 1054 (Stats. 2019, Ch. 79, codified in Public Utilities Code Section 8489 (d)(4) directs the Commission's Wildfire Safety Division, now the Office of Energy Infrastructure Safety (OEIS), to conduct annual safety culture assessments of each electrical corporation. Senate Bill (SB) 901 (Stats. 2018, Ch. 626, codified in Public Utilities Code Section 8386.2) requires the Commission to establish a safety culture assessment for each electrical corporation, conducted by an independent third-party evaluator, at least every five years.

¹² See I.15-08-019; I.19-06-014; I.19-06-015; R.21-10-001. "These proceedings are predicated on events that require the Commission to evaluate how utilities prioritize safety and mitigate the safety risks of catastrophic events." (R.21-10-001, *Order Instituting Rulemaking to Develop Safety Culture Assessments for Electric and Natural Gas Utilities* (October 07, 2021) at 4.)

1 In direct testimony, Ex. SDG&E-31-R, Table KD-9, provides a summary view of
 2 SDG&E’s BY 2021 costs, TY 2024 forecasted costs, and incremental change. During the
 3 discovery process, SDG&E discovered an error in its TY 2024 forecasted costs and
 4 accompanying incremental change.¹³ SDG&E’s BY 2021 costs properly excluded incurred
 5 third-party consulting costs for the development of its SMS framework. Those costs, however,
 6 were inadvertently included in the TY 2024 forecast and have been removed in Revised Table
 7 KD-9, below. In addition, SDG&E’s TY 2024 forecast includes costs for development of
 8 software and technology resources to support a Management of Change process automation
 9 platform and data analytics capabilities. The full forecasted figures were included in TY 2024
 10 where they should have been allocated across the four-year cycle. SDG&E includes a Revised
 11 Table KD-9, below, to reflect these corrections. SDG&E’s revised TY 2024 forecast for its SMS
 12 is \$1.654 million; revised from the \$2.304 million shown in Table KD-9 of direct testimony.¹⁴
 13 The revised incremental change for SDG&E’s SMS is \$790,000 for TY 2024. SDG&E’s BY
 14 2021 and FTE figures remain unchanged.

15 **REVISED TABLE KD-9**
 16 **Non-Shared O&M Summary of Safety Management System Costs**

SAFETY, RISK & ASSET MANAGEMENT			
In 2021 \$ (000s)			
	BY 2021 Adjusted Recorded	Revised TY 2024 Estimate	Revised Incremental Change
ISM001.000 – Safety Management System	864	1,654	790
Total	864	1,654	790
FTEs	2.9	4.9	2

17 Cal Advocates recommends \$1.4 million for TY 2024 for SDG&E’s implementation,
 18 management, ongoing review, assessment, and continuous improvement of its company-wide
 19 Safety Management System. Cal Advocates’ proposal introduces a forecast methodology which
 20 “normalizes” SDG&E’s TY 2024 incremental forecast over the four-year cycle. Cal Advocates
 21 does not provide any justification for rejecting SDG&E’s forecast methodology in lieu of its
 22 own. Based on SDG&E’s Revised Table KD-9, above, further adjustment of SDG&E’s TY
 23 2024 forecast is not warranted. The above table corrects SDG&E’s forecasted costs to allocate

¹³ See Appendix B for PubAdv-SDGE-033, Response to question 1a.

¹⁴ Ex. SDG&E-31-R (Deremer) at KJD-23.

1 technology and software development costs across the four-year cycle. Further “normalizing”
2 these costs would be duplicative and unreasonable as SDG&E’s Revised Table KJD-9 already
3 allocates costs across the four-year cycle.

4 In support of its position, Cal Advocates points to SDG&E’s historical costs and a
5 decrease in recorded actuals between 2020 and 2021. As SDG&E explained in data responses,
6 historical costs were directly related to initial SMS assessment and development.¹⁵ Incurred
7 historical costs to develop SDG&E’s SMS are distinct from SDG&E’s TY 2024 request to
8 implement and mature its SMS. As a newly developed system, historical costs fluctuated as the
9 program was initiated and are not representative of full build-out of a mature SMS. Cal
10 Advocates’ position is contradictory in first stating that “SDG&E did not provide any
11 documentation or line-item detail that identified the activities related to the decrease in
12 spending”¹⁶ but then stating that “SDG&E states that the \$170,000 decrease is due to a third-
13 party consulting contract that was ceased in July 2021”¹⁷ SDG&E provided detail to Cal
14 Advocates in response to its data requests and has justified its request.

15 **ii. Cal Advocates’ Proposed Reduction to SDG&E’s 2019**
16 **and 2020 Costs Has No Bearing and Does Not Impact**
17 **SDG&E’s Base Year or Test Year Forecast**

18 Cal Advocates’ testimony indicates that it conducted an examination that addressed
19 SDG&E’s recorded historical data used in connection with forecasting the revenue requirement
20 in this GRC.¹⁸ Cal Advocates recommends adjustments to recorded costs for Risk Management
21 that it considers to be one-time expenses in 2019 and 2020.¹⁹ Specifically, Cal Advocates states
22 that SDG&E should have removed the following three transactions from its recorded A&G
23 expenses since they are non-recurring:

- 24 • \$268,378 - Vendor invoice for consulting milestone payment in 2019;
- 25 • \$224,454 – Invoice accrual for services provided in 2019; and

¹⁵ See Appendix B for PubAdv-SDGE-004, Response to question 2b and 3a; PubAdv-SDGE-033, Response to question 1g.

¹⁶ Ex. CA-14 (Amin) at 46.

¹⁷ *Id.* at 47; see also, Appendix B for PubAdv-SDGE-165, Response to question 1b.

¹⁸ Ex. CA-19 (Chia/ Lee).

¹⁹ *Id.* at 13-15.

- \$335,000 – Invoice accrual for services provide in 2020.²⁰

Although Cal Advocates recognizes that SDG&E used a BY 2021 forecast method, it appears to have a misunderstanding of the impact of a base year forecasting method as relates to historical spending prior to the base year. As provided for in direct testimony, SDG&E’s TY 2024 cost forecast was developed using BY 2021 incurred costs plus incremental activities.²¹ The 2019 and 2020 costs identified by Cal Advocates, listed above, were not included in SDG&E’s BY 2021 actuals and thus, were not factored into SDG&E’s TY 2024 forecast. SDG&E’s TY 2024 forecast includes incremental mitigation costs added to actual incurred 2021 costs. Because costs incurred in 2019 and 2020 were not factored into SDG&E’s forecasted test year, given the base year forecast methodology used, there is no purpose nor justification for removal of these incurred costs from SDG&E’s 2019 and 2020 historical expenses. Further, although the specific dollar figures reflected in the 2019 and 2020 are not considered recurring, similar costs are regularly incurred, and would vary year to year, as SDG&E appropriately utilizes consultants to provide specific expertise on risk matters driven by key regulatory directives. In short, SDG&E utilized a 2021 Base Year forecast and therefore, the three one-time transactions identified by Cal Advocates were not included and have no bearing on SDG&E’s TY 2024 GRC request.

iii. SDG&E’s SMS Proposal is In-Line with CPUC Directives

The Commission’s *Order Instituting Rulemaking to Develop Safety Culture Assessments for Electric and Natural Gas Utilities*²² (OIR) states that a strong safety culture is illustrated by “management practices that encourage trust, a non-punitive policy toward error, a commitment to reducing high-risk conditions, the use of data to understand the highest operational risks, and training on threat recognition and error avoidance are all critical to enabling a positive safety culture.”²³ Additionally, the OIR states that “[a]n organization with a mature safety culture is informed: it continually collects, analyzes, and disseminates information from incidents, near

²⁰ Ex. CA-19 (Chia, Lee) at 13-14.

²¹ Ex. SDG&E-31-R (Deremer) at 34.

²² R.21-10-001, *Order Instituting Rulemaking to Develop Safety Culture Assessments for Electric and Natural Gas Utilities* (October 13, 2021).

²³ *Id.* at 11.

1 misses, and proactive checks on the system.”²⁴ SDG&E’s SMS and request for incremental
2 funding to fully implement and mature its SMS are in-line with these principles and Commission
3 directives. As the Commission stated in the OIR, “Organizations implement organizational
4 safety management practices through a SMS to build and maintain a strong safety culture.”²⁵

5 In addition, the Commission has stated, “[a] Safety Management System (SMS) is a
6 systems approach implemented by organizations to mitigate the risk of organizational accidents
7 and better achieve safety by identifying hazards and ensuring adequate controls.”²⁶ Given
8 SDG&E’s de-centralized SMS organizational structure that is managed by a small, dedicated
9 team, technology resources are crucial to achieving SDG&E’s and the Commission’s vision for a
10 SMS. In developing its SMS, SDG&E has identified requirements for managing core risks and
11 precursor conditions, developed metrics and leading risk and safety indicators to measure
12 effectiveness and improvement, and established an organizational and governance structure with
13 clear roles, responsibilities, and accountability. SDG&E’s revised forecast is reasonable and
14 should be adopted.

15 2. Asset Management

16 a. Cal Advocates

17 Cal Advocates proposes a reduction to SDG&E’s Non-Shared O&M Asset Management
18 forecast of \$1,273,000.²⁷ This proposed reduction ignores the critical need for SDG&E to
19 advance and sustain its Asset Management System, which is focused on increasing integrity of
20 asset data, deploying risk-informed asset investment decision-making, and providing data and
21 reporting for risk spend accountability in compliance with recent and evolving regulatory
22 requirements.

23 As discussed in direct testimony,²⁸ the Asset Management program integrates and aligns
24 the management of asset activities holistically, incorporating risk-informed data and new
25 regulatory requirements associated with risk-based decision making. Cal Advocates
26 recommends disallowing all incremental costs (except for annualization of one FTE), without

²⁴ *Id.* at 11-12.

²⁵ *Id.* at 13.

²⁶ *Id.*

²⁷ Ex. CA-14 (Amin) at 49.

²⁸ Ex. SDGE-31 (Deremer) at KJD-62.

1 providing specific or reasonable explanations for the recommended disallowance. Instead, Cal
2 Advocates claims that SDG&E has not adequately supported or justified its TY forecast and the
3 requested increase in expense relative to historical expenses. SDG&E disagrees with that
4 assertion and has provided extensive explanation on the evolution of the asset management
5 program in terms of recent historical and future spending in both direct testimony and data
6 responses.²⁹ Attached in Appendix B is an example of data requests received by SDG&E and
7 SDG&E's response.

8 For example, Cal Advocates requested that SDG&E provide justification and
9 documentation on Asset Management expenses and its forecasting methodology. SDG&E
10 responded by providing data on historical labor and non-labor costs, including a breakdown of
11 O&M expenses.³⁰ SDG&E also provided an explanation on the forecast calculation
12 methodology which incorporates the cost of developing, deploying, and maintaining an asset
13 management system over multiple year. SDG&E further provided an explanation of the different
14 elements of an asset management system including processes, asset plans, data systems and
15 decision-making tools to name a few. In addition to developing these items, costs must be
16 expended ongoing to update, enhance, maintain, govern, and evaluate each process, plan, system,
17 and tool.

18 Cal Advocates takes issue with SDG&E not providing specific "documentation" for
19 costs.³¹ Notably, at times Cal Advocates requested documentation for costs that either SDG&E
20 did not incur (*i.e.*, incurred one year, but not another year) or it had not yet incurred (*i.e.*,
21 forecasted to occur in the future).³² In these instances, SDG&E is not be able to produce a
22 specific document that would validate that any cost had not actually occurred or is yet to occur.
23 In addition, and as provided to Cal Advocates in response to data requests, the primary
24 documentation supporting SDG&E's request is my direct testimony and the associated
25 workpapers. In responding to Cal Advocates' data requests, SDG&E also provided detailed
26 descriptions of current and planned activities, overall program roadmap, regulatory directives
27 supporting current and incremental activities, and estimates (and the basis for those estimates)

²⁹ See Appendix B for PubAdv-SDGE-142, Response to question 11c.

³⁰ See Appendix B for PubAdv-SDGE-142-RA6, Response to question 1a.

³¹ Ex. CA-14 (Amin) at 50.

³² *Id.* at 46-47.

1 and recorded costs quantitatively supported in workpapers – all of which are used to develop and
2 support the TY 2024 forecast.³³

3 Cal Advocates also states that SDG&E’s asset management activities are not new.³⁴
4 While technically not new, Asset Management as a distinct and integrated organization was
5 launched in 2018 and continues to evolve. In addition, there are certain functional areas that are
6 new, having been recently added and will continue to be added considering new Commission
7 directives regarding risk spend accountability reporting. For the Asset Management
8 organization, much of the work in the 2018-2019 timeframe was utilized standing up the asset
9 management organization and data systems platform from a governance and programmatic
10 standpoint. During that time, SDG&E determined that it needed to invest in critical foundational
11 information tools and technology systems to enable the advancement of a risk-informed, data
12 driven asset management platform. Accordingly, a major portion of the labor and non-labor
13 resources within Asset Management were charged to capital in 2020-2021, which continues into
14 2023 as these asset management decision-making tools are developed and deployed. In addition,
15 up until 2023, SDG&E’s asset management efforts were almost entirely allocated to the electric
16 distribution and transmission business segments. Efforts to apply the Asset Management
17 platform to all business enterprises, including Gas Operations, IT, Facilities, and Clean Energy
18 programs started in 2023, but will ramp up more significantly in 2024. This expansion to other
19 business units is a key driver in the request for incremental funding for both the Asset Data
20 Systems and Asset Integrity Management areas. Additionally, SDG&E has implemented its
21 asset management systems in multiple phases as described in testimony.³⁵ During this
22 development phase, costs are largely charged to capital due to the nature of the work in
23 developing a capitalized asset, but beginning in 2024, the costs associated with activities to
24 implement a new system will begin to transition to O&M as the particular system is implemented
25 and needs to be converted into a different, but equally important maintenance phase.

26 The overall Cal Advocates recommended 2024 TY disallowances are broken out by
27 functional area below:

³³ See, e.g., Appendix B for PubAdv-SDGE-033-RA6, Response to question 7a.

³⁴ Ex. CA-14 (Amin) at 52.

³⁵ Ex. SDGE-31-R (Deremer) at KJD-62-63.

Constant 2021 (\$000)	Labor	Non-Labor	Total
Asset Data Systems & Records Management	141	221	362
Asset Integrity Management	194	383	577
Asset Risk & Accountability Reporting	330	4	334
Total Cal Advocates Proposed Reductions	665	608	1,273

i. Asset Data Systems & Records Management

Cal Advocates recommends a total disallowance of \$362,000 (\$141,000 labor and \$221,000 non-labor) to Asset Data Systems. The \$141,000 disallowance for labor includes a disallowance of 0.66 FTE that is needed for implementing and supporting the asset data systems for emerging lines of business.³⁶ Additionally, as described above and in direct testimony, existing labor resources currently charging to capital will need to transition to O&M as asset data systems mature and will be focused more on governance and maintenance. Cal Advocates proposes a \$221,000 non-labor reduction primarily consisting of a disallowance for cloud computing costs that are essential to the functionality of the asset data systems. These costs are critical for SDG&E to effectively manage and analyze millions of asset data records. The recommended disallowances by Cal Advocates would compromise SDG&E’s ability to execute and advance its critical asset data systems necessary to support current electric distribution and transmission operations, as well as to expand to other SDG&E business units.

The Asset Data Systems function consolidates and integrates asset data across disparate company systems, creates asset health and risk/impacts indices at an individual asset level, and develops dashboards for users to interact with the data. In 2024, as this initiative continues to develop and include assets across the enterprise, resources will be needed to support building the asset data for additional lines of business (Clean Energy, Gas Distribution, Smart Meter, Facilities, and IT) and additional funding required for cloud computing. Cloud computing costs are treated as O&M and are essential for placing asset data platforms into the cloud, where asset health modeling, asset risk analytics, and imaging capture can be best performed securely, efficiently, and at scale for over 100 million asset records.

³⁶ See Ex. SDGE-31-WP-R at 73-75.

1 ii. **Asset Integrity Management (AIM)**

2 Cal Advocates recommends a total disallowance of \$577,000 (\$194,000 labor and
3 \$383,000 non-labor) to the Asset Integrity Management program. The \$194,000 disallowance
4 for labor includes a disallowance of 0.44 FTE needed to support and advance critical asset
5 management programs, most notably SDG&E’s new investment prioritization system, to a more
6 mature and sustainable state, and effectively expand the system to cover all critical operating
7 units. As mentioned above for Asset Data Systems, existing labor resources currently charging
8 to capital will also need to transition to O&M as asset management systems mature and will be
9 focused more on governance and maintenance mode. The \$383,000 disallowance for non-labor
10 primarily reflects additional contractor resources needed to support ongoing maintenance,
11 governance, and organizational readiness activities for implementation of the Asset Integrity
12 Management program, including Asset Investment Prioritization (AIP), Risk Spend
13 Accountability Reporting (RSAR) process improvements, and cloud computing costs for the
14 asset investment prioritization software solution. These recommended disallowances are not
15 appropriate and would compromise SDG&E’s ability to execute and advance its risk informed
16 asset management platform and investment decision making tools needed to align with
17 regulatory policy directives, support current electric distribution and transmission operations, and
18 expand to other SDG&E business units.

19 For the Asset Integrity Management function, the current investment prioritization tool
20 lacks the capability to meet the more rigorous and complex regulatory reporting requirements
21 mandated in the Commission’s most recent Safety Model Assessment Proceeding (S-MAP)
22 decisions.³⁷ These requirements include forecasting, tracking, and reporting of units and costs
23 associated with risk activities that drive SDG&E’s risk-informed decision-making process. The
24 Commission is requesting more transparency and accountability in capital spending; therefore,
25 replacing the current system with the Copperleaf Portfolio Tool will provide the necessary data-
26 driven, risk informed, transparent, and consistent value-based capital investment prioritization
27 and support the Risk Assessment Mitigation Phase (RAMP), RSAR, and General Rate Case
28 (GRC) reporting requirements. The critical link of implementing an investment prioritization
29 system to align with the emerging regulatory directives on a risk-informed spending and

³⁷ See D.19-04-020, D.21-11-009; D.22-10-002; and D.22-12-027.

1 reporting is further discussed below. SDG&E is currently developing an investment
2 prioritization system and tool via Copperleaf to apply to all its business units. This system is
3 expected to be initially deployed during the third quarter of 2023 in a baseline (lower) maturity
4 form. Incremental resources charged to O&M will be needed to support that system as it is
5 functional and provide for SDG&E's ongoing ability to maintain the steady state as well as
6 advance the maturity of the tool.

7 **iii. Asset Risk & Accountability Reporting**

8 Cal Advocates recommends a total disallowance of \$334,000 (\$330,000 labor and \$4,000
9 non-labor) to Risk Spend Reporting. The \$330,000 disallowance for labor includes a
10 disallowance of 3 FTEs needed to coordinate SDG&E's RAMP and RSAR process
11 implementation and reporting requirements to manage compliance with the Commission's new
12 SMAP requirements. Four new SMAP decisions have been approved since SDG&E's last GRC
13 was filed. Compliance is driving upward cost pressure at SDG&E, which this new group is
14 intended to limit by administering a more coordinated, consistent, and cost-effective overall data
15 management process. The \$4,000 non-labor reduction reflects the normal non-labor office
16 expenses associated with the FTE disallowance. For the reasons stated above, SDG&E
17 maintains that these FTEs and their associated non-labor costs are well justified. Cal Advocates'
18 recommended disallowances are not reasonable and needed to promote SDG&E's compliance
19 with the Commission requirements of current and emerging regulatory directives for risk spend
20 accountability reporting.

21 The Asset Risk and Accountability Reporting group was established in the third quarter
22 of 2021 to improve efficiency of processes and systems used for SDG&E's RSAR, integration of
23 RAMP and GRC filings, and providing greater visibility of risk-based decision-making attributes
24 in SDG&E's various planning, accounting, and regulatory systems. This work will enable more
25 effective forecasting, tracking, and reporting of units and costs associated with risk activities,
26 allowing SDG&E to manage business activities more efficiently in a risk-informed manner and
27 meet the reporting requirements of several recent Commission's decisions. While not a
28 comprehensive list, recent decisions of important applicability include the following:

- 29 • D19-04-020 established annual accountability and safety reporting, including
30 forecasting, tracking, and reporting units of measure associated with risk
31 mitigation activities.

- 1 • D.21-11-009 clarified and changed certain technical aspects of the existing risk
2 assessment methodology.
- 3 • D.22-10-002 expanded RSAR reporting to include all authorized costs
4 cumulatively throughout each GRC cycle, not just annual costs associated with
5 safety, maintenance, and reliability.
- 6 • D.22-12-027 replaced the multi-attribute value framework (MAVF) with project
7 valuation assessment based on cost benefit analysis using standardized monetized
8 risk equivalencies.

9 As reflected in workpapers,³⁸ SDG&E's 2021 recorded FTE is only 0.4 FTE, reflecting a
10 manager position that was hired during the third quarter of that year to manage the program. Cal
11 Advocates does not object to SDG&E's request to add \$111,000 in funding to annualize this
12 position. However, Cal Advocates recommends disallowances of SDG&E's request for an
13 additional three FTEs that would be needed to fully implement, and support accounting solutions
14 needed to best effectuate new Commission requirements. Further, Cal Advocates did not object
15 to the funding request for an equivalent team at SoCalGas within its Risk Management function,
16 which included a total FTE request consistent with SDG&E's request.³⁹ Like SoCalGas,
17 SDG&E is subject to the same RSAR compliance requirements and will need an equivalent level
18 of resources and funding to execute on those directives. Using a continuously improving data
19 driven approach allows SDG&E to develop metrics to measure and monitor mitigation activity
20 effectiveness that best effectuates regulatory requirements.

21 3. Fleet Services

22 a. TURN

23 In its testimony addressing SDG&E's Fleet Services, TURN does not provide a specific
24 objection to the two Fleet Vehicle Additions associated with the employees included in my
25 testimony, but instead recommends that the Commission adopt a reduced Test Year forecast of
26 \$20.027 million for fleet costs based on its "concerns regarding the substantial increase in the
27 Lease and License Cost category that the utilities set forth as forecasts in the 2024 GRC."⁴⁰

³⁸ Ex. SDG&E-31-WP-R (Deremer) at 73.

³⁹ Ex. CA-14 (Amin) at 11.

⁴⁰ Ex. TURN-10 (Jones) at 4.

TURN states “the utilities routinely spend less and acquire fewer incremental vehicles than they forecast and are authorized for, and utility spending on vehicles is highly discretionary.”⁴¹ For SDG&E’s Safety department, SDG&E acquired the two forecasted Fleet Vehicle Additions in 2023, therefore refuting TURN’s position that the money is not spent. Included in testimony and workpapers is the request for two Vehicle Additions to the Fleet, the cost for which can be found in Ex. SDG&E-22-R, in support of Employee Safety Programs and Oversight, Workpaper 1SM002.000. While there are no incremental FTEs associated with this request, the Vehicle Additions to the Fleet were acquired this year to support two transferred Safety Advisors who support 24/7 emergency response and safety operations. These two vehicles are utilized by SDG&E’s internal Safety Advisors who travel to support various districts across SDG&E’s entire service territory. SDG&E’s Safety Advisors work on a rotational on-call schedule where they may be directly deployed to the field for various activities.

V. REBUTTAL TO PARTIES’ CAPITAL PROPOSALS

The table below reflects a summary of the differences between SDG&E’s submitted testimony and Cal Advocates testimony for the Field Contractor Safety Overhead Pool:

Total Capital - Constant 2021 (\$000)					
	2022	2023	2024	Total	Difference
SDG&E	6,300	6,818	6,817	19,935	
CAL ADVOCATES	5,474	5,992	5,991	17,457	2,478

As shown in the table below and described further, SDG&E has revised its 2022, 2023, and 2024 forecast:

Total Capital - Constant 2021 (\$000)					
	2022	2023	2024	Total	Difference
SDG&E (Submitted)	6,300	6,818	6,817	19,935	
SDG&E (Revised)	2,200	2,373	2,377	6,945	(12,990)

A. CONTRACTOR FIELD SAFETY MANAGEMENT OVERHEAD POOL

1. Cal Advocates

Cal Advocates supports SDG&E’s proposal to establish a Contractor Field Safety Management Overhead Pool, but recommends a forecast of \$5,991,000, or a \$826,000 reduction from SDG&E’s submitted forecast of \$6,817,000 in the TY 2024. In reviewing SDG&E’s 2022

⁴¹ Ex. TURN-10 (Jones) at 3.

1 recorded costs, SDG&E discovered that there was an error in the original forecast calculation
 2 presented in testimony.⁴² SDG&E’s original forecast included \$6.300 million, \$6.818 million,
 3 and \$6.817 million for Capital costs associated with the Contractor Field Safety Management
 4 Overhead Pool in 2022, 2023, and TY 2024 respectively. Cal Advocates recommends a forecast
 5 of \$5.474 million in 2022, \$5.992 million in 2023, and \$5.991 million in 2024. SDG&E’s
 6 revised forecast for the Contractor Field Safety Management Overhead Pool is \$2.200 million,
 7 \$2.373 million, and \$2.272 million in 2022, 2023 and TY 2024 respectively.

8 While the original forecast reflects the amount that would be charged to the total
 9 contractor safety management overhead pool, the forecast incorrectly included costs that should
 10 be excluded from the GRC portion of this overhead pool. Specifically, SDG&E’s original
 11 forecast inadvertently included overhead costs for CPUC-jurisdictional projects that were already
 12 directly charged to specific (larger) projects, as well as electric transmission projects allocated to
 13 FERC for ratemaking purposes. The Contractor Field Safety Management Overhead Pool table
 14 below shows the revised forecast of \$2.200 million, \$2.373 million, and \$2.272 million for
 15 Capital costs associated with the Contractor Field Safety Management Overhead Pool in 2022,
 16 2023, and TY 2024 respectively. SDG&E’s capital forecasts include costs for the purchase of
 17 new enterprise-wide schedule software system, and an expanded contractor safety oversight
 18 program. This program is necessary as current staffing levels cannot support the proactive
 19 measures taken to effectively support the increased need of safety oversight and to implement
 20 safety programs such as the Enterprise-wide Incident and Schedule Management, and Enhanced
 21 Verification of Class 1 Contractors. The revised forecast is accurate, and no further reduction
 22 should be taken based on Cal Advocates’ recommendations.

CONTRACTOR FIELD SAFETY MANAGEMENT OVERHEAD POOL									
2022-2024 Capital Expenditure Forecast									
Constant 2021 (\$000)									
	SDG&E ORIGINAL FORECAST			CAL ADVOCATES RECOMMENDED FORECAST			SDG&E REVISED FORECAST		
	2022	2023	2024	2022	2023	2024	2022	2023	2024
SAFETY	6,300	6,818	6,817	5,474	5,992	5,991	2,200	2,373	2,372
TOTAL	6,300	6,818	6,817	5,474	5,992	5,991	2,200	2,373	2,372

⁴² Ex. SDG&E-31-R (Deremer) at KJD-2, Table KD-2.

1 The Contractor Field Safety table below demonstrates the correlation between the
 2 increased need of safety oversight (represented by the increasing safety inspections and
 3 observations) and a decrease in recordable incidents, resulting in a visible reduction of TRIR
 4 (Total Recordable Incident Rates). The additional requested contractors and labor are required to
 5 support the proven increase in safety oversight and verification.

CONTRACTOR FIELD SAFETY					
(Hours Worked, # of Inspections/Observations & TRIR)					
YEAR	Contractor Hours	# of Inspections	# of Observations	# of Recordable Incidents	TRIR*
2019	5,564,364	5,878	159,193	33	1.19
2020	7,599,860	8,839	224,987	37	.97
2021	7,488,640	13,098	344,556	32	.85
2022	7,897,505	12,240	419,013	30	.76
2022 Q1	1,252,458	4,334	126,798	5	.80
2023 Q1	1,067,896	5,150	124,267	2	.37
<i>*TRIR – Total Recordable Incident Rate – Total Number of Recordable Cases X 200,000 divided by total contractor hours worked during the year</i>					
<i>**2022 Q1 numbers Same Time Last Year to 2023 Q1 YTD</i>					

6 **B. ASSET MANAGEMENT SPONSORED TECHNOLOGY CAPITAL**
 7 **PROJECTS**

8 **1. UCAN**

9 In its testimony, UCAN proposes disallowances to five Information Technology (IT)
 10 projects that directly support the Asset Management organization.⁴³ My direct and rebuttal
 11 testimonies provide the business justification for these projects, while the Information
 12 Technology direct and rebuttal testimony sponsors the costs. In its testimony, UCAN proposes
 13 broadly applied disallowances to these projects stating that the projects should be disallowed in
 14 at least some portion due to their lack of business justification and in failing to address
 15 technology obsolescence. UCAN appears to have limited its review to the workpapers and to
 16 have not taken into account the business justification that was described in testimony. The issue

⁴³ Ex. UCAN (Woychik) at 298-304.

1 of technology obsolescence is addressed in the Information Technology rebuttal testimony
2 (Ex. SDG&E-225 (Gordon/Exon)).

3 SDG&E disagrees that the five projects identified by UCAN lack business justification.
4 UCAN also asserts that SDG&E's focus is on its internal resource needs while largely ignoring
5 energy resources outside SDGE's immediate sphere.⁴⁴ While SDG&E is not clear on the
6 specific meaning of this statement, if UCAN is inferring that SDG&E's capital investments in
7 field operations and asset management technologies do not focus on the benefit to customers and
8 other external stakeholders, this is simply not true. On the contrary, these technological
9 investments are focused on the benefit to SDG&E's customers. SDG&E's capital investments
10 enable employees to perform their jobs, and these technology investments are critical to
11 supporting and enhancing public safety, service reliability, customer service, and advancing key
12 Commission policy objectives in the spaces of climate change, mitigation, and clean energy.
13 The business justification and customer benefits are further discussed for each project below.

14 **a. Field Mobility Development Project**

15 UCAN recommends that the Field Mobility Development (00920AS) project forecast be
16 disallowed. UCAN does not provide any supporting evidence, does not raise any specific
17 objection to the business justification for Field Mobility Development, and does not discuss why
18 it believes the business justification is lacking.⁴⁵ SDG&E provided a strong business
19 justification for this request in direct testimony.⁴⁶ While UCAN takes issue with the IT Capital
20 forecast for Field Mobility Development, it fails to note that this project was completed in 2022,
21 is in service, is used and useful and that SDG&E has not forecasted IT Capital costs beyond
22 2022.

23 The deployment of the new tool in 2022-2023 was successful, allowing Electric
24 Supervisors to more effectively manage their work, including receiving work packages, capture
25 data electronically, sync data back to SAP, and utilize GIS tools in a consolidated application.
26 The automation of manual steps led to workflow optimization and streamlined processes. As
27 this project enables improved situational awareness and easier field user experience, the resulting

⁴⁴ Ex. UCAN (Woychik) at 304.

⁴⁵ Ex. UCAN (Woychik) at 298 and 300.

⁴⁶ Ex. SDGE-31-R (Deremer) at KJD-91.

1 impact facilitates enhanced safety and reliability within SDG&E's electric operating
2 organizations. Customers will benefit from a reduction in customer job cancellations, improved
3 transparency and accuracy of work, and an overall better customer experience.

4 **b. Asset Investment Prioritization (AIP)**

5 UCAN claims that the workpaper for Asset Investment Prioritization (00920E) does not
6 present an adequate justification for IT capital.⁴⁷ UCAN offers no analysis or explanation to
7 support its proposed reduction to the capital budget for this project in 2024 by \$3.96 million.⁴⁸
8 A reduction to the capital budget would result in lack of advancement and sustainment of
9 SDG&E's comprehensive Asset Management Program that aligns with the pillars of the safety
10 management system and comports to the provisions of International Organization of
11 Standardization (ISO) 55000, with the goal of supporting business units in assessing and
12 developing risk mitigation plans and prioritizing capital investments. This includes
13 implementation of a mature enterprise investment prioritization system to advance risk-informed
14 and data-driven process for capital investment decision-making. This reduction will also impact
15 the expansion of Asset Integrity Management Program's Operating Model activities to create
16 cross-functional alignment and accountability between all applicable operating groups.

17 SDG&E disagrees with UCAN's recommended disallowance. As described in direct
18 testimony, this project is needed because the "current investment prioritization tool lacks the
19 capability to meet the more rigorous and complex regulatory reporting requirements mandated in
20 S-MAP decisions. These requirements include forecasting, tracking, and reporting of units and
21 costs associated with risk activities that drive SDG&E's risk-informed decision-making process.
22 Regulatory agencies are requiring more transparency and accountability in capital spending;
23 therefore, replacing the current system with Copperleaf Portfolio will provide the necessary data-
24 driven, risk informed, transparent, and consistent value-based capital investment prioritization
25 and support RAMP, RSAR and GRC reporting requirements."⁴⁹ This project supports the
26 Commission and Company goals by providing SDG&E operating units a risk-informing software

⁴⁷ Ex. UCAN (Woychik) at 303-304.

⁴⁸ *Id.*

⁴⁹ Ex. SDGE-31-R (Deremer) at KJD-86.

1 solution that informs asset investment decision-making and provides a common value framework
2 for appraising capital investments at both a divisional and enterprise level.

3 The AIP system (aka Copperleaf tool) provides a critical link in implementing an
4 investment prioritization system that aligns with current and emerging regulatory directives for
5 risk-informed spend decision-making and reporting and is being implemented by other major
6 California utilities. This provides an important benefit to SDG&E customers so that utility
7 investments are delivering the optimal level of risk reduction within SDG&E's capital
8 investment portfolio needed to enhance public safety, improve reliability, and maintain utility
9 infrastructure in a cost-effective manner. Additionally, while providing a critical avenue to meet
10 these regulatory objectives, the AIP system also facilitates the ability to better understand and
11 quantify other customer value attributes, including customer experience and service, as well as
12 advancements towards clean energy, energy equity, and sustainability. AIP creates process
13 repeatability, measurement, and responsible stewardship towards achieving regulatory
14 objectives, risk reduction, economic benefits, and customer service levels. The composition of
15 the Copperleaf solution also adheres to ISO 55000 asset management standards and the
16 framework of Commission directives in recent RAMP and SMAP proceedings at the enterprise
17 level.

18 c. Work Management Enhancements

19 UCAN claims that the workpapers⁵⁰ for Work Management Enhancements (00920AH;
20 00920F) do not present an adequate justification for IT capital. UCAN proposes to reduce the
21 \$1.54 million capital budget in 2024 from \$1.97 million.⁵¹ UCAN offers no analysis or
22 explanation to support its proposed reduction to the capital budget for this project. The reduction
23 would result in the inability to maintain key technology systems that support ongoing business
24 processes.

25 SDG&E disagrees with UCAN and maintains that UCAN's claims are unsupported. The
26 Work Enhancements Project addresses necessary system upgrades, cybersecurity risk mitigation,
27 and system modification to promote changing business processes, and maintenance of core
28 technology systems, including Construction Planning & Design (CPD) and SAP (repository for

⁵⁰ UCAN references an incorrect workpaper number (920F.002), which does not exist. Ex. UCAN (Woychik) at 304.

⁵¹ *Id.*

1 customer and financial data). The CPD-related programs are utilized by approximately 1,000
2 SDG&E employees to help maintain the entire distribution construction work management
3 lifecycle, either directly or via integration, including Planning, Design, Scheduling, Job
4 reconciliation, and Accounting. This includes short-cycle, long-cycle, and emergency-related
5 job types. In addition to supporting operational and accounting functions, these systems also
6 provide support for regulatory and compliance-related processes, promoting safety and reliability
7 through better reporting capability, accurate accounting, better planning, and accuracy for work
8 execution in the field. Having these tools in place enables a more efficient delivery and
9 execution of work to our customers.

10 **d. Field Hardware Replacement**

11 UCAN takes issue with the capital forecast for Field Hardware Replacement (00920AM,
12 00920H) and proposes to eliminate the entire \$3.54 million capital budget.⁵² UCAN offers no
13 analysis or explanation to support its proposed reduction to the capital budget for this project.

14 The Field Hardware Replacement initiative replaces field computing devices at the end of
15 their useful lives. These hardware devices are essential for the field operations workforce to plan,
16 schedule, dispatch, and execute their work. This initiative employs device technology to move
17 away from manual and paperwork approach to gain performance efficiency and increased work
18 throughput to benefit serving customers in a safe, reliable, and timely manner. By providing
19 enabling devices to the field workforce, key capabilities and functionalities are unlocked,
20 including process automation and systems integration to maintain accurate, centrally accessible,
21 and updated data, while mitigating any likelihood of inadvertent process errors or misrouting of
22 work orders. These capabilities are critical during all modes of operations, including emergency
23 wildfire and storm events, heat wave and energy crisis, especially when safe and faster crew
24 response is expected, including accurate, reliable, and timely data collection, and reporting and
25 automated system alerts for situational awareness when assisting customers. Technology cannot
26 function without the device system, and devices reach their end of useful life impacted by factors
27 like life expectancy, asset degradation, non-supported products from vendors, and stricter
28 cybersecurity device requirements. Therefore, it is of utmost importance to effectively replace
29 the degraded field device hardware that is utilized by field personnel and thoughtfully

⁵² *Id.*

1 incorporate device asset management optimization. Failure to timely replace these devices at the
2 end of their useful life would have a significant negative impact on the SDG&E field operations'
3 ability to effectively perform their jobs and serve our customers.

4 **e. GIS Modernization**

5 UCAN claims that the workpapers for GIS Modernization (00920AW; 00920M) do not
6 present an adequate justification for IT capital. UCAN proposes eliminating the entire 2024 TY
7 capital budget of \$0.32 million.⁵³ UCAN offers no analysis or explanation to support its
8 proposed reduction to the capital budget for this project.

9 The business justification and benefits for funding the continued optimization and
10 upgrade of SDG&E's GIS technologies are described in my direct testimony.⁵⁴ SDG&E
11 disagrees with UCAN's claim that the GIS investments do not focus on the benefit of the
12 customer and external stakeholders. UCAN's recommended disallowances would undermine
13 SDG&E's ability to support regulatory needs, operational logistics, and emergency systems.
14 SDG&E's GIS platform is a foundational information system that provides geo-spatial
15 awareness of critical utility assets and infrastructure. It provides continuous situational
16 awareness to emergency management, field employees, and authorized external public safety
17 partners to facilitate employee and public safety, particularly in significant weather or emergency
18 events. GIS is used for analytics and enables internal employees to make decisions to help serve
19 new and existing customers and support the development and construction of infrastructure and
20 assets. One of the main drivers of this capital project is upgrading GIS systems to keep the
21 internal/external applications running properly to meet industry standard. GIS upgrades are
22 driven by cybersecurity vulnerabilities and technical debt. If not maintained, these technologies
23 present risks to the Company and community. Upgrades to GIS technologies is an investment in
24 future security, monitoring, analytics, automation, and data quality for all SDG&E internal and
25 external clients, but especially for those GIS systems that support key regulatory requirements
26 and/or critical emergency events. Maintenance of these systems will allow the teams to continue
27 supporting clients and provide key systems relied on to keep the electric and gas infrastructure
28 running properly and support employee and public safety.

⁵³ *Id.*

⁵⁴ Ex. SDG&E-31 (Deremer) at KJD-90-91.

1 **VI. CONCLUSION**

2 To summarize, the TY 2024 forecast cost associated with the Safety Management System
3 (SMS): Safety, Risk and Asset Management as presented in my testimony and defended within
4 this rebuttal are reasonable and should be adopted by the Commission. These costs are in
5 alignment with SDG&E's commitment toward sustaining safe and reliable service to customers.

6 This concludes my prepared rebuttal testimony.
7

APPENDIX A
GLOSSARY OF TERMS

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GLOSSARY OF TERMS

ACRONYM	DEFINITION
AIM	Asset Integrity Management
AIP	Asset Investment Prioritization
Commission	California Public Utilities Commission
D.	Decision
GIS	Geographic Information System
GRC	General Rate Case
RAMP	Risk Assessment Mitigation Phase
RSAR	Risk Spend Accountability Reporting
SDG&E	San Diego Gas & Electric Company
SMS	Safety Management System
S-MAP	Safety Model Assessment Proceeding
SoCalGas	Southern California Gas Company
TY	Test Year

APPENDIX B

Data Requests and Responses

1. PAO-SDGE-004-RA6 Response to question 2b and 3a, submitted on 06/20/22
2. PAO-SDGE-033-RA6, Response to question 1a, 1g, and 7a submitted on 08/19/2022
3. PAO-SDGE-142-RA6 Response to question 1a and 11c, submitted on 01/04/2023
4. PAO-SDGE-165-RA6 Response to question 1b, submitted on 01/26/2023

Data Request Number: PAO-SDGE-004-RA6

Proceeding Name: A2205015_016 - SoCalGas and SDG&E 2024 GRC

Publish To: Public Advocates Office (PAO)

Date Received: 6/7/2022

Date Responded: 6/20/2022

SDG&E Response 2b.:

SDG&E understands PAO's request for "documentation that demonstrates SDG&E's forecast for additional positions/FTEs," to mean that PAO is seeking an explanation that supports the incremental forecasted FTEs in its Safety, Risk and Asset Management testimony and workpapers rather than actual documents. SDG&E further points out that the GRC presents base year and incremental personnel in the form of full time equivalents (FTE). An FTE is calculated by taking the total annual hours worked (straight-time and overtime hours) divided by the total annual hours in that year. With those clarifications, SDG&E's response is as follows:

SDG&E's TY 2024 SMS forecast includes two additional FTEs (for a total of four FTEs) dedicated to the implementation and management of its Safety Management System. SDG&E's SMS framework utilizes a de-centralized organizational structure that consists of safety representatives positioned throughout the Company and embedded in the business units and operating teams. However, a small team of dedicated SMS staff is needed to effectively coordinate, operationalize, manage and provide SMS program oversight.

From 2019 through 2021, SDG&E retained the services of a third-party consultant to support the development of its SMS. Once the SMS framework, operating model, and processes were developed, the consultant's services ceased in Q3 2021. With the program now in its initial launch phase, there is a need for an advisor and a data scientist to execute, sustain and provide performance measurement of the program, replacing in part some of the activities performed by the consultant. The duties of the two new employees are as follows:

- SMS Advisor – will report to the current Manager - SMS. The SMS advisor role will contribute to the effective deployment and ongoing management of SDG&E's SMS by:
 - providing support for SMS implementation and change management efforts to operationalize developed SMS processes company-wide.
 - serving as the primary point of contact with identified Business Unit safety representatives and regularly meeting with Business Unit representatives to deliver SMS messaging, materials, and training.
 - supporting validation and confirmation of compliance and adherence to SMS processes and procedures.
 - soliciting and collecting stakeholder feedback to measure and evaluate program effectiveness to identify opportunities for continuous safety improvement.
- Data Scientist – will report to the current Manager – SMS. The data scientist role will contribute to early risk identification, the ongoing management and evaluation of the SMS program, performance measurement and continuous improvement by:

Data Request Number: PAO-SDGE-004-RA6

Proceeding Name: A2205015_016 - SoCalGas and SDG&E 2024 GRC

Publish To: Public Advocates Office (PAO)

Date Received: 6/7/2022

Date Responded: 6/20/2022

- involving the application of various tools, data analysis, statistical techniques, algorithms, and machine learning principles to identify trends, patterns, and insights from raw data with an objective to identify risk early, uncover insights, and identify opportunities for safety improvements.

SDG&E Response 2c.:

The forecasted direct labor costs for the two incremental positions are included in the workpapers (Exhibit SDG&E-31-WP) at pages 7-9. The basis for the estimated labor costs was established by a Job Leveling Analysis performed by certified compensation professionals. The company uses market-based analysis, which levels jobs based on pay for similar jobs as determined by the competitive labor market.

Data Request Number: PAO-SDGE-004-RA6

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3. Referring to page KJD-7 of Exhibit (Ex.) SDG&E-31, SDG&E mentioned that it began operating within a Safety Management System (SMS) in 2020. Referring to table KD- 1 on page KJD-4 of Exhibit SDG&E-31, SDG&E's forecast of \$2.304 million for Safety Management System is an increase of \$1.440 million over its 2021 adjusted- recorded expense of \$864k. SDG&E listed five cost drivers behind SDG&E's 2024 forecast of \$2.304 million for Safety Management System on pages KJD-34 and KJD-35 of Exhibit (Ex.) SDG&E-31. Please respond to the following questions:

- a. Please provide the total cost incurred to operate SDG&E's SMS program in 2020 and 2021.
- b. Please explain in detail the specific drivers causing the increase of \$1.440 million or 167% increase in development of the Safety Management System.
- c. In an Excel spreadsheet, please provide all activities and associated amounts for the five cost drivers for Safety Management System that SDG&E calculated in its proposed TY 2024 expense forecast.

SDG&E Response 3:

SDG&E Response 3a.: The costs incurred to operate SDG&E's SMS program in 2020 and 2021 are included in the Safety Risk and Asset Management workpaper 1SM001.000 (Exhibit SDG&E-31-WP). Incurred costs, are comprised of:

- two FTEs dedicated to SMS program management, and
- third-party consulting fees for SMS program development. The third-party consulting contract concluded mid-year 2021.

SDG&E Response 3b.: SDG&E began operating within a company-wide Safety Management System framework in 2020. SDG&E's 2020 – 2021 incurred costs represent its initial investment to develop an SMS framework and operating model that better aligns the business, collectively manages all safety programs, and integrates risk and asset management across the company. The requested incremental costs are to operationalize this initial investment into an effective, sustainable system that identifies risk early and improves SDG&E's safety performance and safety culture. Thus, additional resources are needed. The specific activities that support the incremental cost forecasts are explained in detail in the testimony at pp. KJD-34 and KJD-35 and are summarized below:

1. Additional Staff (2 FTEs):

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1. Referring to Ex. SDG&E-31-WP, page 8, SDG&E TY 2024 forecast shows \$300k non-labor expense for Development and Implementation of a Strong Management of Change Platform and another \$300k for Integration of New Technology and Enhanced Data Analytics. SDG&E shows the calculation of non-labor expense in the explanation section: \$71.43 multiplied by 4200 employees, which is the same for each of these two cost categories. Referring to pg. KJD-27-28 of Ex. SDG&E-31, SDG&E provided the following explanation for the cost category "Integration of New Technology and Enhanced Data Analytics":

"This effort will be executed by consultants and require the purchase of licensed products. SDG&E seeks incremental funding to integrate new technology to enhance worker and/or system safety (e.g., data and analytic tools and communication tools) to measure the effectiveness of the SMS. In order to have an effective SMS, SDG&E will need to make an intentional and deliberate effort to reveal risks within its business operations, evaluate multiple risks and threats using "what if" scenarios, and predict potential failures that may occur in its infrastructure system."

Referring to pg. KJD-29 of Ex. SDG&E-31, SDG&E provided explanation on the cost category "Development and Integration of Strong Management of Change Platform" stating that, "The objective of this standardized MOC process is to reduce the possibility of introducing additional risk, or inadvertently increasing the risk, to public or employee health and safety, the environment, or the community as the result of a change."

From these explanations, Cal Advocates understand that each of these cost categories is intended to identify risks associated with changes to or the introduction of new technologies. Cal Advocates was not able to clearly understand SDG&E's explanation on the difference between these two cost categories based on the descriptions provided in the testimony.

Please respond to the following questions:

a. Provide documentation that explains whether the total forecast for the Development and Implementation of a Strong Management of Change Platform over the four-year rate case cycle is \$300k or is \$1.2 million. Also provide the documentation that explains the total forecast over the four-year rate case cycle for Integration of New Technology and Enhanced Data Analytics.

SDG&E Response 1a:

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SDG&E objects to this request as vague and ambiguous, specifically with regard to the request for “documentation”.

Subject to and without waiving its objections, SDG&E responds as follows:

As stated in Exhibit SDGE-31-WP-R at page 8 and in testimony, Exhibit SDGE-31-R, at KJD-27 – KJD-29:

The total non-labor forecast for the Development and Implementation of a Strong Management of Change (MOC) platform is \$300K over the four—year rate case cycle (not \$1.2 million). *SDG&E acknowledges that this was not accurately reflected in its testimony and workpapers and will make this correction at the next opportunity.*

- The non-labor forecast includes the software purchase or development and/or consultant fees to develop a software tool to automate the process to efficiently and consistently manage operational, organizational, and process change on an enterprise-wide basis. While SDG&E has not yet formally engaged third party consultants or vendors in the selection process, it has solicited input from previously contracted consultants specializing in technology advancements in development of the RAMP and GRC cost forecast.
- SDG&E currently does not have a software tool that consolidates the various MOC processes across one platform. SDG&E’s 2021 SMS Adjusted Recorded costs do not include technology or process automation software solutions. Since SDG&E’s SMS was not funded as part of its prior GRCs, SDG&E is now seeking funding for technology resources to effectively implement its SMS.
- SDG&E seeks to develop or license a software tool that will help identify risk and provide process automation to enable a safe transition process when change occurs. The “change” covered by this process includes activities (e.g., modifications to equipment or infrastructure; changes to process control and/or instrumentation; changes in critical operating limits; revisions or additions to standard operating procedures or emergency procedures) that could potentially impact the safe continuation of operations, employee, contractor, and public safety.
- Technology automation would provide a systematic approach to help safeguard workers from potential harm during the crucial period of transition or introduction of change.

The total non-labor forecast for the Integration of New Technology and Enhanced Data Analytics is \$300K over the four-year rate case cycle (not \$1.2 million). *SDG&E acknowledges that this was not accurately reflected in its testimony and workpapers and will make this correction at the next opportunity.* The non-labor forecast includes software purchase or development and/or consultant fees to integrate new technology for enhanced data analytics. SDG&E’s 2021 SMS Adjusted Recorded costs do not include technology or data analytic software solutions. SDG&E is now seeking funding for technology resources to effectively implement its SMS. While SDG&E has not yet formally engaged third party consultants or vendors in the selection process, it has

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solicited input from previously contracted consultants specializing in technology advancements in development of the RAMP and GRC cost forecast.

- A primary objective of SDG&E's SMS is to take a proactive and predictive approach to risk identification. SDG&E collects various key safety performance leading and lagging metric data and seeks resources and tools to allow for deeper data analytics to identify trends, observations, and correlations to identify opportunities for safety improvements.
- Introduction of new technology would allow for predictive analytics that use algorithms founded on solid safety principles to make SDG&E's collected safety data – e.g., Near Miss Reports, safety incident data, audits, assessments, safety observations – actionable.

b. Provide a detailed explanation of the calculation from Ex. SDG&E-WP-R, page 8, that shows what \$71.43 and 4200 employees means, and how those figures were derived, for each of these cost categories.

SDG&E Response 1b:

SDG&E developed this cost forecast based on subject matter input and historical costs from previous similar software development efforts for both the Management of Change platform and the Integration of New Technology and Enhanced Data Analytics system. To arrive at the cost per employee, SDG&E divided the estimated non-labor costs of \$300K by 4,200 which is the estimated number of employees that would utilize or otherwise benefit from the program's use. This was derived by looking at the current number of full-time employees at SDG&E and using that as a baseline estimated number of employees for the calculation which provides \$71.43 as an estimated cost per employee for the Implementation of a Strong Management of Change Program and the Integration of New Technology and Enhanced Data Analytics system.

c. Provide the description and differences between these two cost categories. The description on the differences should specify more than what is included in the testimony.

SDG&E Response 1c:

While these two separate cost categories have a common objective to identify and mitigate risk, they each target different specific safety risk areas.

Management of Change Platform: cost category is specific to software purchase or development to support efficient and consistent change management, such as changes that result from operational, organizational, technology, equipment, and/or process change. Within its Safety Management System, SDG&E has developed a process for safe continuation of operations when change is introduced which includes performing risk assessments and confirming that proper controls are in place before the change is introduced. The incremental costs support software development, licensing, and

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industry best practices and mandates from regulatory proceedings related to safety. SDG&E continues to strive to be the best in class and will continue on the path of continuous improvement. SDG&E's SMS is founded on further fostering a learning environment for continuous safety improvement. The cost categories that are newly proposed for TY 2024, satisfy the commitments made by SDG&E in the TY 2019 GRC and support SDG&E's goals of improved safety culture and improved safety performance.

Moreover, in its TY 2019 GRC, SDG&E expressed its intent to implement an SMS for both its gas and electric operations. In approving SDG&E's TY 2019 GRC, the CPUC set forth its "support... for the improvement of Applicants' safety management and safety performance." (D.19-09-051 at p. 23). The cost forecasts included in SDG&E's Safety Management System workpapers are to implement and manage its newly developed SMS.

As described in testimony (SDG&E-31), the incremental safety related activities proposed in the TY 2024 GRC are critical components of SDG&E's efforts to advance the systematic and integrated approach for executing safety programs across the organization. This includes enhancing the utilization of data, risk-informed tools, and metrics to increase safety culture, transparency, and drive continuous improvement while operating in a dynamic workplace and operating system. These advancing efforts are consistent with the Commission's directives to develop and implement safety management systems to accomplish these objectives. SDG&E's approach is modeled after the API 1173 standard, which is viewed as best in class for safety management in the petroleum industry and has been recognized by the Commission for application within the electric and gas utility industry.

g. Provide documentation that SDG&E's management prepared and relied upon that clearly explains and demonstrates specifically why SDG&E did not already utilize, perform, incorporate, or complete the proposed TY 2024 activities for its Safety Management System which will cause its expenses to increase by 167% relative to 2021 Adjusted Recorded if those proposed maintenance activities were important for safety performance and safety culture

SDG&E Response 1g:

SDG&E objects to this request under Rule 10.1 of the Commission's Rules of Practice and Procedure to the extent it seeks the production of information that is neither relevant to the subject matter involved in the pending proceeding nor is likely reasonably calculated to lead to the discovery of admissible evidence, specifically with regard to the request for "documentation that SDG&E's management prepared and relied upon". SDG&E also objects to this request as vague and ambiguous, specifically with regard to the request for "documentation that SDG&E's management prepared and relied upon". SDG&E also objects to this request on the grounds that it is unintelligible in that it misstates facts and/or assumes facts that do not exist.

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Subject to and without waiving its objections, SDG&E responds as follows:

When looked at in isolation, SDG&E understands that there appears to be a large incremental increase compared to 2021 Adjusted Recorded costs. However, SDG&E's SMS is a new safety initiative, not maintenance activities, and is aligned with SDG&E's and the CPUC's goals of improved safety culture and improved safety performance. SDG&E's 2021 Adjusted Recorded costs did not include costs for technology resources to effectively implement the SMS. Safety is a top priority of both SDG&E and the Commission and the amount requested is to invest in safety improvements for employees, contractors, and customers.

SDG&E began the strategic initiative to develop an SMS for both its gas and electric operations in 2019. This included hiring two full-time personnel in 2020 to manage the development and implementation of the SMS. Since then, SDG&E developed the framework, operating model, risk assessment methodologies, and processes necessary to satisfy the objectives of a SMS (aligned with the ten tenets of API 1173). SDG&E did not previously seek funding for its SMS and is seeking funding for the first time in its TY 2024 to support the technology and resources necessary to further implement the SMS. SDG&E's 2021 Adjusted Recorded costs do not include technology or process automation software solutions. Since SDG&E's SMS was not funded as part of its prior GRCs, SDG&E is now seeking funding for the technology, resources, and support to effectively fully implement its SMS. SDG&E expressed its intent to implement an SMS for both its gas and electric operations in its TY 2019 GRC and received CPUC support for moving forward in the TY 2019 GRC Decision (D.19-09-051 at p. 23). There are no TY 2024 "proposed maintenance activities" included within SDG&E's funding request relative to its Safety Management System.

SDG&E is actively engaged in the Commission's Safety Culture Rulemaking proceeding and shares the Commission's views on the importance of a strong safety culture. SDG&E is seeking funding as part of its TY 2024 GRC to support implementation of its SMS to continually improve its safety culture and safety performance.

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7. Referring to Ex. SDG&E-31-WP, page 73-75, SDG&E forecasted the majority of non-labor expenses for asset data foundation, asset data governance activities, asset integrity management program, cloud computing costs etc. Referring to Ex. SDG&E-31-WP, in page 74 of the workpaper, SDG&E forecasted \$58k in TY 2024 non-labor expense for cloud computing costs, and then again added \$60k in non-labor expense for cloud consumption costs, \$383k non-labor expense for cloud computing costs and other non-labor costs to support effective change management activities in page 75 of the workpaper. Please respond to the following questions:

a. Provide the detailed breakdown of expenses for TY 2022, TY 2023, TY 2024, and description of the costs: 1. Asset Data Foundation, 2. Asset Data Governance 3. Asset Integrity Management, and 4. Cloud Computing. The description and breakdown should not just specify what is included in the workpaper.

SDG&E Response 7a:

1.) Asset Data Foundation & Asset Data Governance Expenses

The Asset Data Foundation and Asset Data Governance are the two core activities within the Asset Data Systems & Records (ADS&R) team. The ADS&R team manages the development, implementation, and integration of enterprise asset data systems and tools that support the objectives of the broader Asset Integrity Management (AIM) program, including measuring asset performance and enabling data-driven, risk-informed decision making. The cloud computing costs associated with the systems and tools being developed by the ADS&R team are listed in section 4 below (Asset Data Foundation and Intelligent Image Processing).

The Asset Data Foundation program focuses on the consolidation of asset data across enterprise systems, including GIS, maintenance and inspection records, outage records, and weather data into a central data repository. The program utilizes advanced analytics, including machine learning to develop asset specific health models that can predict asset condition and asset impact/risk. The program also develops asset specific reports and dashboards that offer intuitive user interfaces with dynamic data that allows end engineering, operational and data science users to easily interpret and analyze the data.

The Data Governance program is responsible for implementing roles and responsibilities, along with processes and controls to manage critical asset data more effectively across SDG&E. To advance asset data governance, the program has developed processes and tools to define data quality of individual asset types integrated into the Asset Data Foundation. These processes include measuring the current state of the data in source systems, creating targets for improvement, and defining future opportunities of continuous improvement in the areas of data capture and data management within and across different source systems.

Direct/Unloaded 2021 \$\$	2022	2023	2024
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Non-labor costs to support the implementation of and business readiness of the asset data foundation and to establish and advance data governance activities. Includes change management, training, and platform support for SAP HANA and AWS.	\$100,000	\$100,000	\$100,000
Data Product Owner to support the asset data foundation for Gas, Smart Meter, Facilities, and IT. (0.22 FTE @ \$100k) plus \$2500 non-labor in 2023	\$0	\$24,500	\$22,000
Senior Data Analyst to support data governance activities (0.22 FTE @ \$100k)	\$0	\$22,000	\$22,000
Increase current ADS&R headcount to higher % O&M based upon changing responsibilities	\$0	\$75,000	\$75,000
Data Product Owner to support the asset data foundation for emerging lines of business (clean transportation, distributed energy resources) (0.22 FTE @ \$100k) plus \$2500 non-labor	\$0	\$0	\$24,500
Total:	\$100,000	\$221,500	\$243,500

2.) Asset Integrity Management Expenses

The SDG&E Asset Integrity Management (AIM) team advances the development and implementation of a comprehensive, integrated, and risk-informed Asset Management System (AMS), encompassing people, process, data, analytics, and technology. The AIM program links the management of asset activities holistically and supports regulatory requirements associated with risk-based decision making. More specifically, AIM directly links to risk mitigation by using identified and prioritized enterprise risks to inform asset management strategic and long-term risk planning.

The AIM team is building the AMS to comport to the provisions of International Organization of Standardization (ISO) 55000 to support regulatory direction on safety, wildfire mitigation, and electric system resilience and to reinforce an integrative approach to electric assets for governance, strategy, analytics, and continuous improvement. Conforming with ISO 550000 is in alignment with the Commission's Safety and Enforcement Division (SED) recommended ISO 55000 compliance as part of SDG&E's plans for maturing its risk management program. This demonstrates SDG&E's continued commitment to maturing its risk, asset, and investment management integration by enabling an asset-level risk model approach. The cloud management costs associated with the systems and tools being developed by the AIM team are listed in section 4 below (Repository for Investment Prioritization).

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Direct/Unloaded 2021 \$s	2022	2023	2024
Non-labor costs to fund change management activities to support implementation of Asset Integrity Management program	\$0	\$200,000	\$200,000
Increase current AIM headcount to higher % O&M based on changing responsibilities	\$0	\$145,000	\$145,000
ISO certification	\$0	\$200,000	\$0
Increase current consulting to higher % O&M based on changing responsibilities	\$0	\$147,000	\$147,000
Asset Strategy Advisor to support centralized asset management functions for Fleet, Facilities and IT (0.44 FTE @\$110k) plus \$2500 non-labor	\$0	\$0	\$50,900
Total:	\$0	\$692,000	\$542,900

Cloud Computing

Cloud management costs are utilization costs associated with building and maintaining SDG&E’s asset data in the cloud. There are numerous benefits to cloud data solutions, including cost efficiencies, scalability, processing power, speed of delivery, and reliability/redundancy. More specifically, these costs are associated with implementation and maintenance of the following capabilities, including the Asset Data Foundation, Investment Prioritization, and Intelligent Image Processing. These are separate but interrelated cloud data products whose existence enables risk-informed data-driven decision making.

Direct/Unloaded 2021 \$s	2022	2023	2024
(CC 2100-4064) Maintenance costs for investment prioritization tool that supports asset management’s objective of driving risk-informed data-driven decision-making	\$20,000	\$26,667	\$33,333
(CC 2100-4060) Maintenance of the asset data foundation	\$33,333	\$46,000	\$58,000
(CC 2100-4061) Maintenance costs to support asset management’s advancement of intelligent image processing (IIP) capabilities.	\$30,000	\$60,000	\$60,000
Total:	\$83,333	\$132,667	\$151,333

b. Explain whether all these proposed TY activities specified above are new or never performed for asset management. If all proposed TY activities and initiatives are new,

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never performed or implemented for Asset Management, clearly state so and explain why the proposed projects were never required or necessary before 2022 to ensure safety and reliability of its operating system and to ensure asset management to support the safe, clean and reliable delivery of energy to customers. If SDG&E did perform these activities during 2019-2021 for asset management, state so and provide the adjusted recorded expenses (2019-2021) associated with each activity.

SDG&E Response 7b:

SDG&E also objects to this request on the grounds that it is unintelligible in that it misstates facts and/or assumes facts that do not exist.

Subject to and without waiving the foregoing objections, SDG&E responds as follows

SDG&E disagrees with the inference that SDG&E's asset management, asset compliance, business technology and data management oversight was in any way lacking in the 2019-2021 timeframe.

The proposed Incremental activities specified above are new to the Asset Management organization. To date, the costs associated with activities within the Asset Management organization have been primarily allocated to capital to support the development and deployment of new tools and technology that support the strategic objective of the Asset Management program. As the systems/tools are deployed and matured, SDG&E enters into more of a maintenance phase with the shift in the nature of the costs to O&M. This accounting shift is represented in the 2024 forecasts, which includes both the maturing and maintenance phase of the electric distribution portion of the asset management system – transitioning to O&M, as well as the new development of other business units, such as gas operations, facilities, and information technology – which will initially be as capital and eventually transition to O&M.

The proposed projects/activities are required as SDG&E's risk, asset, and investment management organization evolves, and aligns with the Commission's Safety and Enforcement Division (SED) recommended compliance with International Organization of Standardization (ISO) 55000 per Order Instituting Investigation I.19-06-015 at page 21.¹ These activities reinforce an integrative approach to electric assets for governance, strategy, analytics, and continuous improvement, and support regulatory direction on safety, wildfire mitigation, and electric system resilience.

c. In a table format, provide the historical costs 2017-2021 for these or similar projects (if any): 1. Asset Data Foundation, 2. Asset Data Governance 3. Asset Integrity Management, and 4. Cloud Computing.

SDG&E Response 7c:

¹ I.19-06-015: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M322/K232/322232178.PDF>

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Please provide the following:

1. Referring to Ex. SDG&E-31-WP-R, pages 71 and 72, SDG&E provided the forecast explanations and Summary of Results table for Asset Management. The following excerpts are from Ex. SDG&E-31-WP-R, pages 71 and 72:

Forecast Explanations:

Labor - Base YR Rec

The forecast method developed for this cost category is Base Year Recorded Plus Incremental Increases. For labor, base year provides an appropriate baseline in comparison to future targets for the organization. Incremental labor increases from the base year are requested in order to completed additional initiatives.

Non-Labor - Base YR Rec

The forecast method developed for this cost category is Base Year Recorded Plus Incremental Increases. For non-labor, base year provides an appropriate baseline in comparison to future targets for the organization. Incremental non-labor increases from the base year are requested in order to completed additional initiatives.

Summary of Results:

		In 2021\$ (000) Incurred Costs						
		Adjusted-Recorded					Adjusted-Forecast	
Years	2017	2018	2019	2020	2021	2022	2023	2024
Labor	164	265	282	238	337	447	984	1,111
Non-Labor	11	682	323	391	368	641	1,147	986
NGE	0	0	0	0	0	0	0	0
Total	175	928	605	627	693	988	2,111	2,077
FTE	0.8	1.9	2.2	1.9	2.5	3.1	6.0	6.1

Referring to SDG&E’s response to Cal Advocates data request PAO-SDGE-033-RA6, Q5f, SDG&E stated regarding its 2024 forecast that “As the systems/tools are deployed and further evolve, SDG&E will enter into the maintenance phase with costs shifting from Capital to O&M.” Please answer the following questions:

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- a. SDG&E's recorded expenses increased by \$753k between 2017 and 2018, from \$175k to \$928k. Provide documentation that explains this increase and that identifies the line-item detail associated with the increase in expenses related to the \$753k.

SDG&E Response 1a:

The centralized Asset Management organization was established during the second half of 2017. The costs in 2017 reflect the initial mid-year formation and launch of the new team, which represent primarily internal labor. The increase in 2018 reflects a third-party consultant that was brought in to assist with the assessment of the asset management system and the development of the initial asset management strategy, plans, and evaluation of supporting asset data systems that would be needed to advance overall asset management objectives. In addition, please see separately attached PAO-SDGE-142-RA6_Q1a.

ATTACHMENT - PAO-SDGE-142-RA6_Q1a

SDG&E's recorded expenses increased by \$753k between 2017 and 2018, from \$175k to \$928k. Provide documentation that explains this increase and that identifies the line-item detail associated with the increase in expenses related to the \$753k.

Question 1a:

Cost Type	2017	2018	Delta
Labor ST	164	265	102
Computer	2	1	(1)
Consulting/Contract Labor	0	627	626
Event	-	2	2
Meals & Entertainment	3	12	8
Office Supplies	1	2	1
Purchased Services	-	1	1
Tele Communication	2	3	1
Training	-	1	1
Travel	1	14	13
Total	174	927	753

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11. Referring to SDG&E's response to Cal Advocates data request PAO-SDGE-033-RA6, Q.7c, Cal Advocates asked SDG&E to provide the historical costs 2017-2021 for these or similar projects (if any): 1. Asset Data Foundation, 2. Asset Data Governance 3. Asset Integrity Management, and 4. Cloud Computing. The following excerpt is from SDG&E's response to Cal Advocates data request PAO-SDGE-033-RA6, Q.7c,

The following excerpt is from SDG&E's response to Cal Advocates data request PAO-SDGE-033-RA6, Q.7a represents Asset Integrity Management forecasts:

For Asset Integrity Management, SDG&E's recorded expenses were relatively flat between 2019 and 2021 averaging \$349k for the three-year period. SDG&E's 2023 forecast is \$692k, almost double than the three-year average expense for Asset Integrity Management.

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c. Provide documentation that explains and demonstrates how SDG&E's forecast method best represents a reasonable estimate of annual costs for Asset Integrity Management program.

SDG&E Response 11c:

The basis and explanation for the forecast methodology is provided in testimony (provide page reference). SDG&E considers the base year forecast to be the most reasonable forecast methodology for the Asset Integrity Management program, as well as the entirety of Asset Management, because this is a relatively new organization that continues to evolve and grow due to emerging business needs and regulatory requirements. The Asset Management historical recorded costs represent ramping up costs to support the development of the new organization. The base year plus incremental costs forecast methodology reflects the necessary growth, evolution and maturity of the AIM program that is not captured by simply using historical averaging of costs incurred during the development years. Using the base year of 2021 plus forecasted incremental costs provides a clear and most applicable means to forecast the Asset Management workgroups. Using historical averaging (e.g. three or five-year) is more appropriate for a already mature organization where year-to-year ebbs and flows can be balanced. That is not the case for the Asset Management organization.

As stated in testimony (Exhibit SDG&E-31-R) at page 70 and 71,

...the base year provide an appropriate baseline in comparison to future targets for the organization. Incremental labor increases from the base year are requested to complete additional initiatives. This method was used, as opposed to historical averages, due to the evolving nature of the Asset Management department and to specifically account for increased FTEs need to support increased workload due to the expanding scope of the Asset Management organization.

Data Request Number: PAO-SDGE-165-RA6

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Date Received: 1/11/2023

Date Responded: 1/26/23

1. Referring to Ex. SDGE-31-WP-R, page 5, SDG&E provided the forecast explanations and Summary of Results table for the Safety Management Systems category in Safety, Risk and Asset Management Systems department. The following excerpt is from the SDGE-31- WP-R, page 5:

Summary of Results:

Years	In 2021\$ (000) Incurred Costs								
	Adjusted-Recorded					Adjusted-Forecast			
	2017	2018	2019	2020	2021	2022	2023	2024	
Labor	82	104	131	243	381	471	558	616	
Non-Labor	9	5	8	790	483	287	788	1,687	
NSE	0	0	0	0	0	0	0	0	
Total	92	109	138	1,034	864	758	1,346	2,303	
FTE	0.8	0.8	1.0	1.7	2.9	3.6	4.9	4.9	

SDG&E states “The forecast method developed for this cost category is Base Year Recorded Plus Incremental Increases. For labor, base year provides an appropriate baseline in comparison to future targets for the organization. Incremental labor increases from the base year are requested in order to complete the proposed initiatives. This is a new program with less 5 years of cost history. Therefore, a Base Year forecast plus incremental increases is appropriate since the program is not fully built out and did not incur consistent costs over the past three to five years to support an Average cost forecast.”

Please respond to the following questions:

a. Explain how SDG&E calculated the \$2.30 million expense for TY 2024 for the Safety Management Systems category in Safety, Risk and Asset Management Systems department. Provide supporting documentation that can verify these expense forecasts.

SDG&E Response 1a:

SDG&E calculated the \$2.30 million expense for TY 2024 for its Safety Management System by taking its base year incurred costs and adjusting for the forecasted incremental costs needed to implement the additional mitigation activities outlined in SDG&E’s RAMP and in this GRC testimony (*see* Exhibit SDG&E-31-R, Table KD-10).

SDG&E’s Test Year forecast includes additional SMS dedicated support (2 additional FTEs for a total of 4.9 FTEs) focused on effective and sustainable implementation of the SMS framework, operationalization of the developed SMS processes with associated training, communication and support, ongoing review and data analysis, as well as the following incremental risk mitigation activities that were included in SDG&E’s 2021 RAMP filing to fully develop its Safety Management System with necessary technological resources and support to provide continuous safety improvement:

Data Request Number: PAO-SDGE-165-RA6

Proceeding Name: A2205015_016 - SoCalGas and SDGE 2024 GRC

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Question 1-Continued

b. SDG&E's recorded expenses continuously decreased by \$170k between 2020 and 2021, from \$1.034 million to \$864k in 2021. Provide documentation that explains the decrease and identifies the line-item detail associated with the decrease in expense related to the \$170k from 2020 to 2021.

SDG&E Response 1b:

In Exhibit SDG&E-31-WP-R, Workpaper 1SM001.000 shows a \$170k reduction in Safety Management System incurred costs from 2020 to 2021. The main driver for this reduction is the third-party consulting contract to develop the initial SMS strategic framework, operating model and risk assessment methodologies ceased in July 2021.

SDG&E's 2020 incurred costs include a full 12-months of the third-party consulting contract. 2021 incurred costs include only a partial year of the third-party consulting contract resulting in a \$170k decrease.