

Company: San Diego Gas & Electric Company (U 902 E)
Proceeding: 2019 General Rate Case
Application: A.17-10-007/008 (cons.)
Exhibit: SDG&E-251

SAN DIEGO GAS & ELECTRIC COMPANY
REBUTTAL TESTIMONY OF KENNETH J. DEREMER
(ASSET MANAGEMENT)

JUNE 18, 2018

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



TABLE OF CONTENTS

I.	SUMMARY OF DIFFERENCES	1
II.	INTRODUCTION AND BACKGROUND	1
III.	REBUTTAL TO OSA AND ORA	4
A.	OSA.....	4
B.	ORA	7
1.	Asset Integrity Management (AIM) Program Highlights.....	11
2.	Ratepayers Benefit from a Comprehensive Asset Management Program.....	15
3.	Incremental AIM Functions versus Existing Operating Activities.....	17
4.	Planned Future Activities of the AIM Organization.....	19
IV	CONCLUSION.....	21
V	WITNESS QUALIFICATIONS.....	23

APPENDIX A – GLOSSARY OF TERMS

1 **SDG&E REBUTTAL TESTIMONY OF KENNETH J. DEREMER**
2 **(ASSET MANAGEMENT)**

3 **I. SUMMARY OF DIFFERENCES**

TOTAL O&M - Constant 2016 (\$000)			
	Base Year 2016	Test Year 2019	Change
SDG&E – As filed	--	\$4,610	\$4,610
ORA	--	\$0	\$0
OSA			

4
5 **II. INTRODUCTION AND BACKGROUND**

6 This chapter: (1) adopts the direct testimony of William Speer supporting San Diego Gas
7 & Electric Company’s (SDG&E) incremental cost forecasts necessary to implement and sustain
8 its newly formed asset management organization (Asset Management) and program;¹ and (2)
9 provides rebuttal testimony addressing issues raised regarding Asset Management in the
10 following testimony chapters sponsored by other parties:

- 11 • The Office of Safety Advocates (OSA) as submitted by Carolina Contreras
12 and Jenny Au (Ex. OSA-1), dated May 14, 2018.
- 13 • The Office of Ratepayer Advocates (ORA) as submitted by Tamara
14 Godfrey (Ex. ORA-05), dated April 13, 2018.

15 Specifically, this rebuttal addresses SDG&E’s proposed recovery of incremental costs to
16 establish a comprehensive program for asset management that aligns with our overall safety and
17 risk management programs and comports to the provisions of International Organization of
18 Standardization (ISO) 55000, as initially proposed in the direct testimony of William Speer (Ex.
19 SDG&E-15).

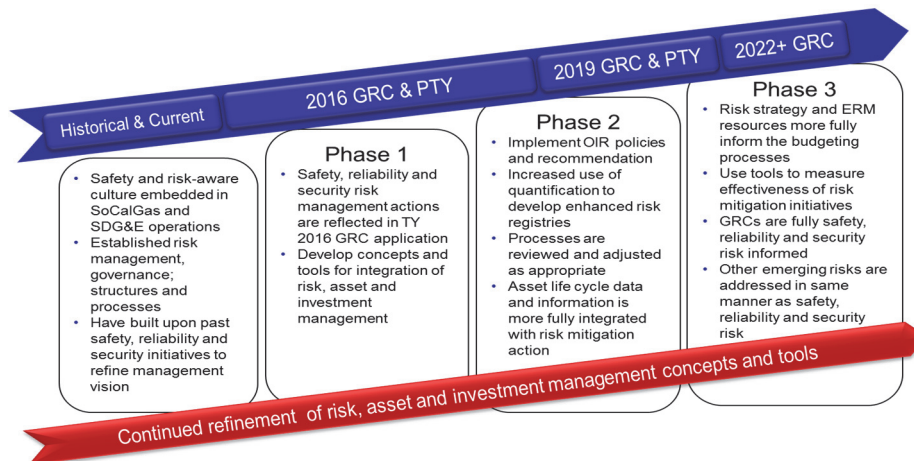
20 As a preliminary matter, the absence of a response to any particular issue in this rebuttal
21 testimony does not imply or constitute agreement by SDG&E with the proposal or contention
22 made by these or other parties. The forecasts contained in SDG&E’s direct testimony,
23 performed at the project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

¹ Ex. SDG&E-15-2R (Speer) at WHS-60-63; October 2017, Workpapers to Prepared Direct Testimony of William H. Speer on Behalf of San Diego Gas & Electric Company, Ex. SDG&E-15-WP (Ex. SDG&E-15-WP (Speer)) at 315-327.

At the time SDG&E filed its application, on October 6, 2017, SDG&E’s Asset Management organization was newly forming, such that SDG&E’s direct testimony regarding the organization described high-level goals, and paths toward achieving those goals. This is a similar position as SDG&E and SoCalGas (the Companies) were in with respect to the newly forming Enterprise Risk Management (ERM) organization in their test year (TY) 2016 General Rate Case (GRC). As the TY 2019 Risk Management and Policy testimony of Diana Day describes, “the Companies’ risk management programs and organizations were in their infancies” when their TY 2016 direct testimony was submitted (in 2014), and the Commission had not yet issued its “Risk Framework Decision,”² with its planned requirements to implement the Safety Model Assessment Proceeding (S-MAP), Risk Assessment Mitigation Phase (RAMP), and annual accountability reporting as part of the GRC process.³ By the time the Commission issued a final decision in the TY 2016 GRC, SoCalGas and SDG&E’s plans for integrating risk, asset, and investment management were following along the strategic planning trajectory shown in Ms. Day’s TY 2016 GRC testimony, which is provided in Ex. SCG-02-R/SDG&E-02-R and below, for reference:

Ex. SCG-02-R/SDG&E-02-R - Figure DD-3: TY 2016 GRC

**SoCalGas and SDG&E Strategic Planning Trajectory
(Integrating Risk, Asset and Investment Management)**



² D.14-12-025.

³ December 2017, Revised Prepared Direct Testimony of Diana Day, Ex. SCG-02/SDG&E-02-R (Ex. SCG-02/SDG&E-02-R (Day)) at DD-21.

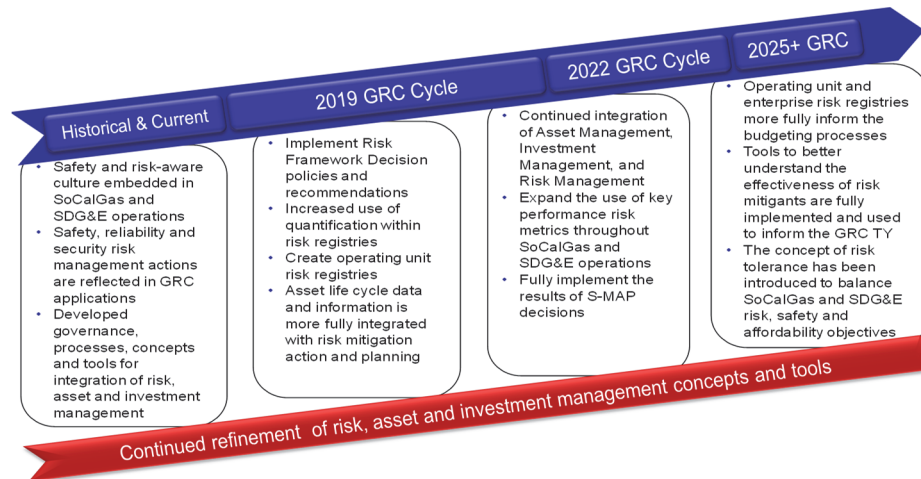
1 In its March 2015 report, submitted in SDG&E’s TY 2016 GRC, the Commission’s
 2 Safety and Enforcement Division (SED) recommended ISO 55000 compliance as part of
 3 SDG&E’s plans for maturing its risk management program:

4 Sempra should continue to evolve its Risk Management Program. Risk
 5 Management encompasses many interrelated programs and processes that cut
 6 across many different Business Functional Areas. Given constraints, an expedient
 7 way to validate the effectiveness of these processes in managing assets in a safe,
 8 reliable and efficient manner, would be for Sempra to demonstrate accredited 3rd
 9 party certification of compliance with the ISO [55001] Asset Management
 10 Standard.⁴

11 Ms. Day’s TY 2019 GRC testimony provides an updated trajectory demonstrating the
 12 Companies’ progress, future plans, and continued commitment to integrated risk, asset, and
 13 investment management:

14 **Ex. SCG-02-R/SDG&E-02-R - Figure DD-4: TY 2019 GRC**

15 **SoCalGas and SDG&E Strategic Planning Trajectory**
 16 **(Integrating Risk, Asset and Investment Management)**



⁴ A.14-11-003/-004 (cons.), “CPUC Safety and Enforcement Division Risk Assessment Section Staff Report on [SoCalGas and SDG&E] 2016-2018 Consolidated [GRC] Applications” (SED Report) at 43.

1 Consistent with SED’s recommendations and this strategic planning trajectory, Ms. Day
2 confirmed that “the Companies are committed to moving forward with a more formalized asset
3 management program,”⁵ specifically:

4 Many efforts are underway with regards to asset management and the Companies
5 are committed to moving forward with a more formalized asset management
6 program. This commitment is demonstrated through newly named Asset
7 Management Vice Presidencies with dedicated Asset Management organizations
8 at each company as well as initiatives to enhance our asset information systems
9 and analytics. Specifically, SoCalGas and SDG&E plan to implement API 1173
10 Public Safety Management System and ISO 55000 Asset Management standards,
11 respectively. Both of these efforts are multi-year initiatives that will strengthen
12 our risk, asset, and investment management processes.⁶

13 With this background, my rebuttal testimony adopts SDG&E’s direct testimony
14 supporting its incremental asset management cost request, previously sponsored by Mr. Speer,
15 and specifically responds to the issues raised by OSA and ORA’s recommendation to deny
16 SDG&E’s requested funding for incremental asset management costs. As part of this rebuttal,
17 my testimony provides updated information on the development of SDG&E’s asset management
18 program since the time SDG&E filed its TY 2019 GRC application. This updated information
19 provides further evidence of SDG&E’s continued commitment to evolving its Asset
20 Management organization in furtherance of its safety goals, as consistent with its direct
21 testimony and in contrast to OSA’s and ORA’s recommendations.

22 **III. REBUTTAL TO OSA AND ORA**

23 **A. OSA**

24 OSA issued its testimony on May 14, 2018, putting forth several recommendations
25 regarding the implementation of safety management processes and systems.⁷ My rebuttal
26 focuses on the specific OSA proposal recommending SDG&E adopt a safety management
27 system for its electric business that includes an asset management system that is certifiable under
28 American Petroleum Institute (API) 1173, instead of ISO 55000, as SDG&E proposes.⁸

⁵ Ex. SCG-02-R/SDG&E-02-R(Day) at DD-26.

⁶ *Id.* at DD-26-27.

⁷ May 14, 2018, Prepared Testimony of Carolina Contreras and Jenny Au on [SDG&E and SoCalGas] 2019 General Rate Case, Ex. OSA-1 (Ex. OSA-1 (Contreras)) at 2-20 - 2-24.

⁸ *See* Ex. OSA-1 (Contreras) at 2-4.

1 Specifically, OSA recommends that SDG&E should develop a safety management system (SMS)
2 framework to address electric operations, and present its proposal in the next GRC; and that
3 SDG&E's SMS framework should leverage the API 1173 framework's emphasis on safety
4 culture.⁹

5 SDG&E appreciates OSA's focus and attention on enhancing safety efforts at the utilities
6 in a systematic way. SDG&E shares this core belief and is committed to addressing safety as its
7 top priority. My rebuttal addresses the component of OSA's recommendation that relates to the
8 safe operation of utility assets through a comprehensive and integrated asset management
9 system. For the reasons described below, SDG&E believes that OSA's recommendations are
10 consistent with the spirit and objectives of SDG&E's asset management initiative, newly formed
11 organization, and planned conformance with ISO 55000.

12 OSA is correct that ISO 55000 is an asset management system, and API 1171 is a safety
13 management system for pipelines.¹⁰ However, OSA does not appear to have a complete view of
14 ISO 55000 as it relates to asset safety and risk and does not acknowledge the important
15 similarities between ISO 55000 and API 1173. Also, because SDG&E is largely an electric
16 distribution company, its electric distribution assets form the basis for its core operations.
17 Therefore, the safety of SDG&E's core operations directly depends upon safely and competently
18 managing its assets. SDG&E's asset management initiative, which is outlined in further detail
19 below, is directly aligned with and is a critical extension of SDG&E's enterprise risk
20 management program (as described in Ms. Day's direct testimony),¹¹ and is identified as a
21 RAMP activity addressing critical risks categories, including wildfire mitigation, electric
22 infrastructure integrity and records management, among others. As explained in direct
23 testimony, the Commission has recognized the importance of establishing a comprehensive asset
24 management program that comports with ISO 55000 in advancing and evolving risk
25 management and asset safety across business functional areas.¹²

⁹ *Id.*

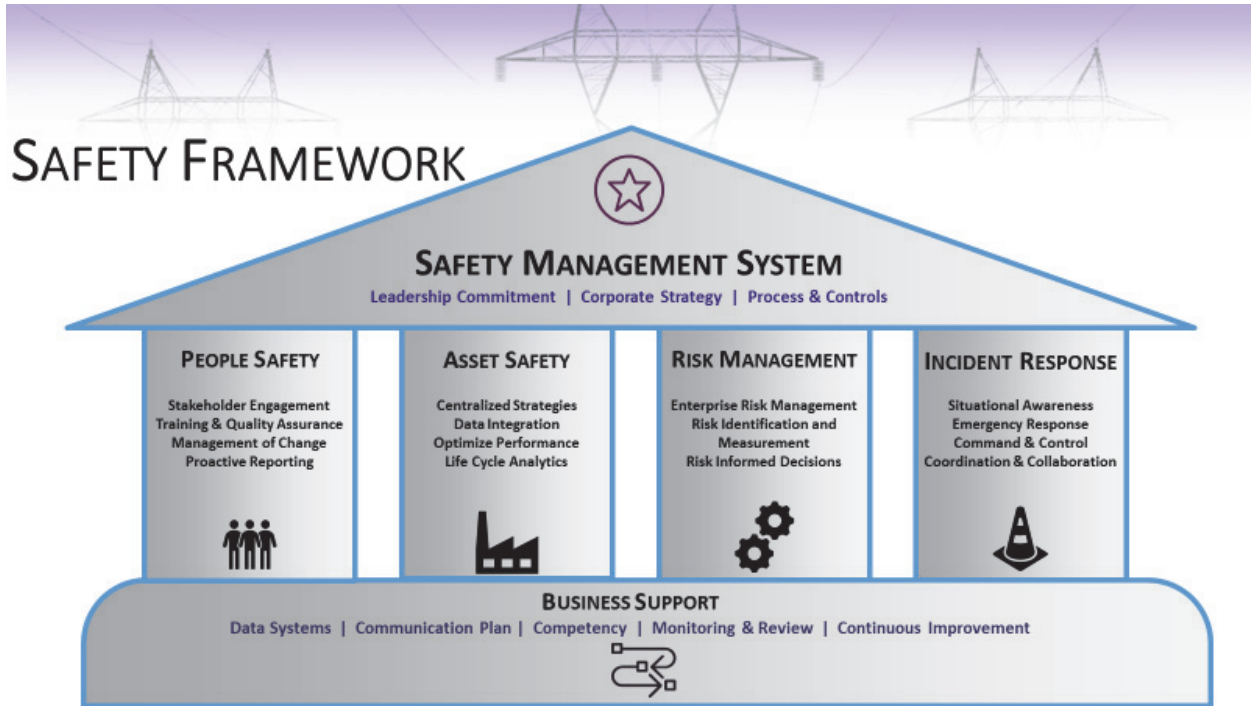
¹⁰ Ex. OSA-1 (Contreras) at 2-21.

¹¹ Ex. SCG-02/SDG&E-02(Day) at DD-26-27.

¹² Ex. SDG&E-15-2R (Speer) at WHS-60.

1 The management of asset safety and risk is a key pillar of SDG&E’s overall enterprise
2 safety system, as shown in the chart below:

3
4 **Figure KD-1 – Safety Framework**



5
6 Asset safety is a critical pillar in the overall safety management framework SDG&E
7 maintains and aligns directly with SDG&E’s enterprise risk management platform. The
8 implementation of a ISO 55000 asset program will be a key enhancement in advancing the safe
9 management and operation of SDG&E’s electric assets, and provides additional benefits as
10 described in the rebuttal to ORA below.

11 Because API 1173 is specifically for entities that operate pipelines, SDG&E’s electric
12 business would not be able to receive certification under the standard. ISO 55000 is a broader
13 standard that incorporates key elements of API 1173 in managing assets and ultimately drives the
14 mitigation of safety risk as the cornerstone of decision-making. It contains many of the key
15 tenets of API 1173, but makes more practical sense for SDG&E’s electric assets, since API 1173
16 is specifically geared for oil and gas pipeline operators. Key similarities between API 1173 and
17 ISO 55000 that would be required for specific certification under each standard include the
18 following:

- 1 • Asset plans must align with corporate strategy – where for SDG&E (and
- 2 SoCalGas), safety is the core value;
- 3 • Clear demonstration of top leadership commitment and engagement;
- 4 • Systematic approach to managing assets;
- 5 • *Plan – Do – Check – Act* work cycle;
- 6 • Incorporation of risk mitigation;
- 7 • Transparency and accessibility of data;
- 8 • Integration of communication and training;
- 9 • Management of information across asset life cycle; and
- 10 • Continuous improvement.

11 Most of the above similarities between the two standards were identified in OSA’s testimony as
12 important characteristics of API 1173, but it is also important to understand their application in
13 ISO 55000. It is estimated that about 80% of the key principles of API 1173 are included in ISO
14 55000. For example, a critical element to SDG&E’s current and future asset management
15 program (under ISO 55000) is the Corrective Maintenance Program (CMP), which is an asset
16 safety process deployed to provide oversight and structure around SDG&E’s inspection,
17 maintenance and repair of electric facilities in compliance with General Orders 95, 128 and
18 165.¹³ The fundamental provisions of SDG&E’s CMP directly align with the safety and
19 compliance objectives of API 1173.

20 For all of these reasons, although the details may differ, I believe that SDG&E’s proposal
21 should be considered consistent with the nature of OSA’s proposals.

22 **B. ORA**

23 ORA issued its report on electric distribution operations and maintenance (O&M) on
24 April 13, 2018, addressing, among other things, SDG&E’s asset management initiative and
25 organization.¹⁴ ORA recommends denying SDG&E’s request for incremental funding of

¹³ See December 2017, Revised Prepared Direct Testimony of Alan F. Colton, SDG&E-14-R (Ex. SDG&E-14-R (Colton)) at 46-47.

¹⁴ April 13, 2018, ORA Report on Electric Distribution Expenses, Ex. ORA-05 (Ex. ORA-05 (Godfrey)) at 48-55.

1 \$4.610 million to establish an Asset Management group in its entirety, based on the following
2 arguments:

- 3 • ORA states that the funding for Asset Management should be done within
4 current funding levels (*i.e.*, reallocating and utilizing embedded historical
5 costs).
- 6 • SDG&E’s asset records management and maintenance functions are
7 routine and ongoing activities with historical costs already funded by
8 ratepayers.
- 9 • Groups subsequently transferred into the new Asset Management
10 organization (Compliance Management and Technology Solutions and
11 Reliability) are overlapping functions with the proposed Asset
12 Management group.
- 13 • SDG&E is not a start-up company and its historical expenses should
14 include labor costs for several groups that have been performing the same
15 or similar activities proposed for the Asset Management group.
- 16 • SDG&E’s testimony does not discuss or demonstrate the benefit to
17 ratepayers for funding asset management.

18 These arguments indicate a lack of understanding and appreciation of the purpose,
19 extensive effort and ratepayer benefits of SDG&E’s plan to implement a comprehensive and
20 integrated asset management program that will enhance the safety, performance and utilization
21 of SDG&E’s electric assets. SDG&E’s incremental cost request to establish a comprehensive
22 and integrated Asset Management organization and program is critical to SDG&E’s asset risk
23 strategy, as described in Ms. Day’s testimony and summarized in Section I. Moreover,
24 SDG&E’s plan to create a central asset management organization is consistent with key
25 Commission objectives, including the emphasis on asset safety that is the subject of OSA’s
26 testimony in this GRC proceeding.

27 This rebuttal testimony will address the following with respect to issues raised by ORA:

- 28 • Re-emphasize the critical need for and benefits of an integrated asset
29 management program incremental to what has previously been in place.
- 30 • Describe how the heightened focus and new requirements introduced by
31 the Commission in the areas of safety, risk quantification, analytics and

1 accountability reporting require that SDG&E develop a more robust and
2 integrated asset management system.

- 3 • Provide an update on the progress and development of SDG&E’s new
4 asset management program to date.
- 5 • Clarify the essential incremental resources and funding that are required to
6 fully implement and sustain the asset management program.

7 As a matter of policy, the Commission has endorsed and adopted funding for incremental
8 programs and initiatives that focus on the prioritization and enhancement of safety and risk
9 management. This is evident in the Commission’s adoption of a settlement that included
10 incremental funding for SDG&E to establish an Enterprise Risk Management organization in the
11 TY 2016 proceeding¹⁵ and their funding for PG&E to implement various certifiable asset
12 management programs.¹⁶

13 In the S-MAP applications currently before the Commission, ORA, SDG&E, OSA, and
14 numerous other parties recently jointly requested adoption of a settlement agreement adopting a
15 risk management methodology that relies on assessing risk by groups of assets with like
16 characteristics.¹⁷ The settling parties, including ORA, noted that this approach is consistent with
17 the Commission guidance to create and maintain asset-level risk models to provide the safe
18 operation and management of utility assets:

19 Moreover, the settlement is consistent with the Commission’s conclusion that the
20 utilities should “create risk models either at the asset level or structured by event
21 and rolling up into higher levels will take time, but the effort will contribute to
22 safety objectives over time.”¹⁸

23

¹⁵ D.16-06-054 at 144-45.

¹⁶ See, e.g., D.14-08-032, *passim*, authorizing funding for various PG&E asset management initiatives “to bring PG&E’s mapping and asset management into line with best industry practices.” *Id.* at 137.

¹⁷ A.15-05-002 (cons)., Joint Motion for Approval of Settlement Agreement Plus Request for Receipt into the Record of Previously Served Documents and for Expedited Comment Period of Pacific Gas and Electric Company (U-39 E), Southern California Edison Company (U-338 E), Southern California Gas Company (U-904 G), San Diego Gas & Electric Company(U-902 M), The Office of Ratepayer Advocates, The Utility Reform Network, and Energy Producers and Users Coalition and Indicated Shippers (filed May 2, 2018).

¹⁸ *Id.* at 19-20 (quoting D.16-08-018, COL 15).

1 To implement this type of asset-level risk model approach, which ORA has approved per the S-
2 MAP settlement agreement, SDG&E should implement an asset management program such as
3 ISO 55000.

4 As described in Mr. Speer's direct testimony and further below in this rebuttal, the
5 implementation of ISO 55000 would accomplish this mission. As previously mentioned, the
6 OSA recognizes the importance of a comprehensive asset safety system in its testimony filed in
7 this GRC; and SED recommended ISO 55000 compliance as part of SDG&E's plans for
8 maturing its risk management program. By rejecting funding for the ISO 55000 asset
9 management program, ORA fails to acknowledge these key policy objectives as well as the
10 extensive and comprehensive effort needed to establish such an initiative. Instead, ORA
11 suggests that simply through re-aligning the organization, SDG&E can build and sustain an asset
12 management program that is certifiable under ISO 55000.

13 ORA's testimony claims that SDG&E did not provide an adequate explanation as to how
14 the asset management organization is being developed nor what the benefits would be to
15 ratepayers. SDG&E acknowledges that during the time that the direct testimony in this GRC
16 was prepared, specific details were not known on the new program, as it was just commencing
17 formation. Again, this is similar to SDG&E's circumstances in the TY 2016 GRC, with respect
18 to the newly forming Enterprise Risk Management organization, and in light of the evolving
19 GRC risk framework in CPUC proceedings. But since the time of filing the TY 2019 GRC
20 application, and consistent with the strategic planning trajectories for risk, asset, and investment
21 management shown in Ms. Day's testimony: SDG&E has launched a formal asset management
22 initiative under the provisions of ISO 55000; and SDG&E has established incremental leadership
23 and program management positions for the asset management organization, with governance and
24 organization structures.

25 These recent, continuing developments serve as rebuttal to ORA's testimony, as they
26 reflect: (1) SDG&E's continued commitment to maturing its risk, asset, and investment
27 management integration; as well as (2) the fact that establishing an asset management initiative
28 and organization consistent with ISO 55000 requires incremental resources and change
29 management. My rebuttal to ORA below provides: (1) a description of SDG&E's developing
30 Asset Integrity Management (AIM) program; (2) its current state of development; and (3) how
31 SDG&E ratepayers benefit from AIM.

1 **1. Asset Integrity Management (AIM) Program Highlights**

2 In March 2017, a Senior Vice President (SVP) of Asset Management was named to
3 oversee the planning, development and management of SDG&E’s portfolio of electric assets.
4 This position is an incremental position as the SVP’s previous position was backfilled. At that
5 time, several existing organizations in the areas of asset growth and development were
6 transferred into the new Asset Management division reporting to the SVP. This included Energy
7 Supply and Electric Procurement, Clean Transportation, Electric System Planning and Grid
8 Modernization, Growth and Technology Integration and Strategy Planning. These transfers had
9 no incremental impact to SDG&E’s total headcount, since they were simply transfers to the
10 newly formed Asset Management division for strategic alignment purposes. Subsequent to this
11 organizational event, in mid-2017, a new department called Asset Management was created
12 (separate from the transfers above), reporting to the SVP of Asset Management. At that time, a
13 new director (incremental) position was created. This new department is tasked with developing,
14 implementing and sustaining a comprehensive and integrated asset management program that
15 would comply with the tenets of ISO 55000 for SDG&E’s suite of electric distribution and
16 transmission (and eventually other) assets. Following the appointment of the new director, two
17 additional manager positions were incrementally added (*i.e.*, previous positions were backfilled)
18 during the third quarter of 2017. In conjunction with these two additions, the formal Asset
19 Integrity Management (AIM) initiative was officially launched in early 4th quarter 2017 and is
20 described below. A fifth incremental position in Asset Management was filled in May 2018,
21 bringing the total incremental positions already designated to AIM (within Asset Management)
22 to 5.

23 Safe and effective operation of utility assets requires awareness and management of many
24 linked activities with complex processes. While efforts may be applied individually to critical
25 activities, better asset safety and performance is achieved when viewing the linked activities and
26 processes together. The incremental functions requested to implement and maintain a
27 comprehensive and integrated asset management program under ISO 55000 are necessary to link
28 the management of asset activities holistically and support risk management and new regulatory
29 requirements associated with risk-based decision making. The table below provides the
30 breakdown of the incremental headcount needed to develop, implement and sustain the AIM
31 program launched in 2017, consistent with Mr. Speer’s direct testimony. The table separately

1 shows the incremental positions that have already been established for AIM and the new
2 incremental positions that still need to be hired as the program is further developed in 2018-
3 2019. Non-labor costs consisting of outside consulting is also needed to independently assess,
4 evaluate and advise on conformance with ISO 55000. These incremental costs are already being
5 incurred by SDG&E.

6 //
7
8 //
9
10 //

1
2
3

Table KD-1 - AIM – Incremental Activities in Central Organization to Achieve and Sustain ISO 55000 Conformance

<i>Asset Integrity Management (AIM) Activity (excludes records management function)</i>	<i>Incremental FTEs Hired</i>	<i>New Incremental FTEs</i>	<i>Total Incremental FTEs</i>
2017 – 2018 Foundational Activities:			
Executive Oversight (Chair of Steering Committee)	1		1
Program Leadership and Management– Strategy, Implementation and Governance (director, manager and advisor)	3	1	4
Information Systems -Assessment, Integration and Maintenance	1		1
Asset Plans – Development, Implementation and Monitoring		3	3
Process Implementation and Change Management		1	1
2019 Additional Activities to Achieve/Sustain ISO 55000:			
Analytics and Metrics – Development, Measurement, Integration and Monitoring		3	3
Evaluation and Reporting – Corrective Action and Continuous Improvement		3	3
Asset Management System – Information Requirements, Data Integration and Development/Maintenance of Central Database		4	4
Total FTE’s	5	15	20¹⁹

4
5
6

As previously stated, the AIM program was launched in the latter part of 2017 with the objective of developing a comprehensive, cohesive and sustainable asset management system for

¹⁹ Ties to 20 incremental FTE’s as reflected in Workpapers of William Speer. When combined with additional 11 FTE’s requested for records management, total incremental FTE’s requested for Asset Management is 31. (see Ex. SDG&E-15-WP (Speer) at 317-318).

1 electric assets that includes an integrated approach for governance, strategy, analytics and
2 continuous improvement. The tenets of AIM would align with that of ISO 55000, where
3 SDG&E could seek third-party certification. The initial scope of AIM is electric distribution and
4 transmission assets, which would take approximately three years to reach certification. Once
5 certifiable for electric distribution and transmission, SDG&E would expand AIM to cover other
6 assets within electric generation, customer operations, information technology, facilities and
7 fleet. As described in the direct testimony of Omar Rivera, SDG&E gas operating assets are
8 pursuing conformance under API 1173, unique to gas pipeline operations.²⁰

9 Since the initial filing of SDG&E's GRC application, the new Asset Management
10 organization has incrementally achieved several key milestones in the development of the AIM
11 program, each of which is a key requirement of the ISO 55000 framework. These milestones
12 include the following:

- 13 • Identification and development of organizational and governance
14 structure, including executive steering committee, program leadership,
15 asset ownership, subject matter experts and stakeholder engagement
16 strategy;
- 17 • Inventory of all electric distribution and transmission assets, and
18 identification of asset families and critical assets within each family;
- 19 • Drafting of overarching asset management policy and strategy that aligns
20 with company safety and risk objectives; and
- 21 • Inventory of information systems that support asset management and/or
22 contain asset data.

23 Key AIM activities currently in flight in 2018 include:

- 24 • Development of detailed life-cycle asset plans for each asset family within
25 electric distribution and transmission – 5 separate families;
- 26 • Identification/quantification of metrics used to measure asset risk and
27 performance

²⁰ October 6, 2017, Prepared Direct Testimony of Omar Rivera, Ex. SDG&E-05 (Ex. SDG&E-05 (Rivera)) at OR-14.

- Assessment of current asset information systems to determine gaps between current state and ISO 55000 compliant systems; and
- Based on assessment, develop roadmap for how to utilize current systems and integrate into central asset data warehouse to support data-driven decision making, which does not currently exist today.

2. Ratepayers Benefit from a Comprehensive Asset Management Program

ORA claims that SDG&E does not discuss the ratepayer benefits of a comprehensive asset management program and that the functions of such an endeavor are “routine.”²¹ SDG&E strongly disagrees with this claim.

In Mr Speer’s direct testimony, the benefits of the (now-called) AIM program are provided in detail. One such benefit is the alignment with SDG&E’s risk management program:

As SDG&E creates a greater focus on asset risk, we will expand the risk management organization to undertake more detailed risk assessments, using leading methods that allow for a more enhanced understanding of our assets, their risks and the most cost-effective risk mitigations.²²

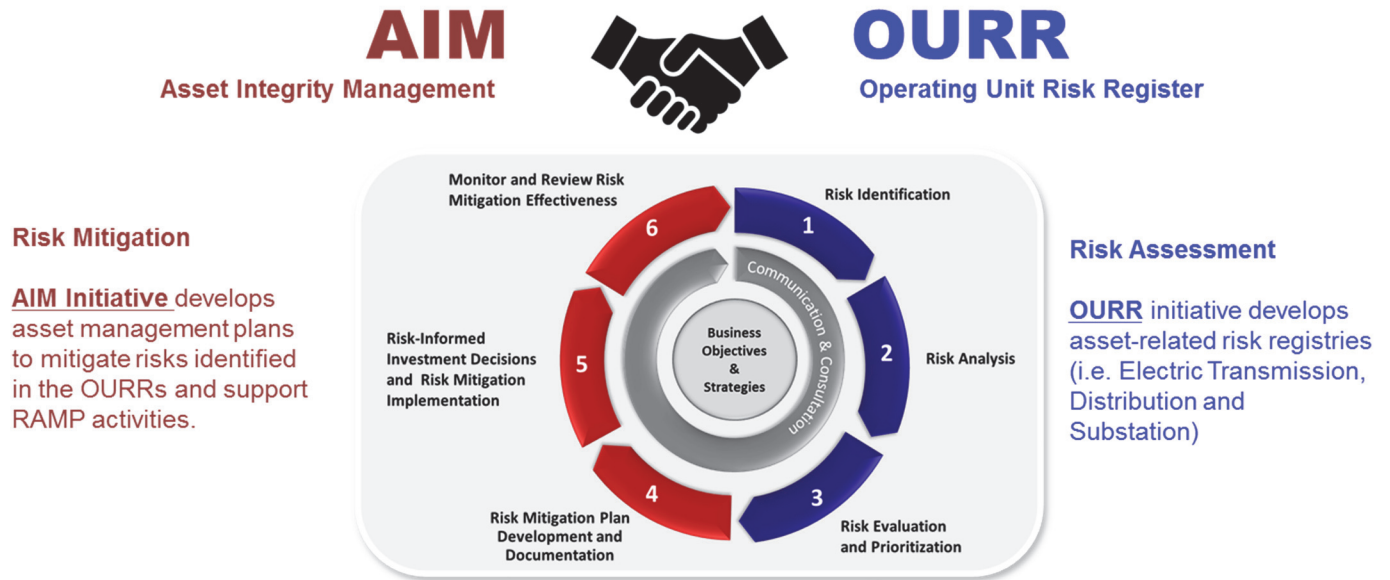
The benefits to ratepayers in mitigating safety risks have been well documented in recent regulatory proceedings and subsequent rulings, and has become a foundational policy at the Commission. For SDG&E to continue advancing our risk-informed platform, a more robust and cohesive asset management system, focused on utilizing lifecycle asset analytics to reduce safety risk for our most critical assets must be incorporated. The direct benefit of mitigating asset risk is the most important benefit to our customers, employees and the general public. While SDG&E currently maintains outstanding programs and initiatives focused on safety risk mitigation strategy, a centralized asset management team (with the integration of data) is an essential extension to provide oversight, leverage best practices across the organization, integrate asset data throughout asset lifecycle, develop consistent policies, strategies and procedures, establish consistent reporting and evaluation, and drive continuous improvement. This model has worked successfully at SDG&E for Employee Safety Programs (centralized coordination in Human Resources), Enterprise Risk Management (ERM) and Emergency Services/Incident

²¹ Ex. ORA-05 (Godfrey) at 49.

²² Ex. SDG&E-15-2R (Speer) at WHS-63: 18-21.

1 Response. The critical extension of asset management in alignment with what has been
2 established with ERM is illustrated in the table below.

3 **Figure 2 – Asset Management and Risk Management Alignment**



4 While the management of safety risk associated with our assets is the first priority of
5 AIM, there are clearly other ratepayer benefits derived from a centralized asset management
6 system. These are also mentioned in direct testimony,²³ and as highlighted below:

- 8 • Integration of asset records delivers enhanced consistency and traceability
9 of data both for internal and external reporting (e.g., future GRCs);
- 10 • Enhances operational performance in key Commission policy areas of
11 reliability and clean energy;
- 12 • Use of advanced analytics allows for optimization of asset utilization, with
13 goal of reducing/redeploying O&M costs and future capital investment. In
14 fact, recent research by Aberdeen Group has indicated that firms with
15 advanced asset management practices (top 20%), have experienced
16 approximately 11% reduction in annual O&M costs.²⁴

²³ See SDG&E-14-2R (Speer) at WHS-60-62; SDG&E-15-WP (Speer) at 315-327.

²⁴ Aberdeen Group, *Asset Management Performance: Blazing a Better Path to Operational Excellence* (November 2017).

- 1 • Enables better risk informed decision-making and capital investment
- 2 prioritization; and
- 3 • Provides a more adaptable model in a changing business environment –
- 4 changes include growth of electric vehicles, distributed energy resources
- 5 and energy storage.

6 Using electric transformers as an illustrative example, a comprehensive asset
7 management plan would be put into place that evaluates benefits, costs and risks of alternate
8 replacements strategies (consistent with RAMP): (1) Run to failure; (2) Replace based on age;
9 (3) Replace based on condition; or (4) Replace based on risk-analytical criteria. An assessment
10 would be made on the criticality level of the asset, and then the appropriate replacement strategy
11 would be incorporated based on the optimal determination of asset criticality, safety, risk
12 evaluation and cost/benefit.

13 **3. Incremental AIM Functions versus Existing Operating Activities**

14 ORA’s testimony implies that the new asset management organization overlaps with
15 existing work, that asset records management and maintenance functions are routine, and that
16 on-going activities are already funded by ratepayers. ORA also states that “SDG&E should be
17 able to reorganize, consolidate and establish its Asset Management group with funding it is
18 currently receiving for asset and records management activities.”²⁵

19 In addition, ORA’s testimony references three separate tables of existing functions that
20 ORA believes overlap with the work of the new asset management group:

- 21 • Compliance Management;
- 22 • Technology Solutions and Reliability; and
- 23 • Electric Regional Operations (ERO).

24 Although the above groups currently have (and will continue to have) a critical touch
25 point with asset management, they are clearly separate and distinct in work scope and
26 responsibilities from that of the AIM team, for which SDG&E requests incremental funding.

27 **a. Compliance Management**

28 The Compliance Management group oversees, implements, manages and reports on
29 SDG&E’s electric distribution compliance programs in conjunction with relevant Commission

²⁵ Ex. ORA-05 (Godfrey) at 54:32-34.

1 directives, including General Orders 95, 128 and 165. The group maintains, updates and reports
2 on SDG&E's Corrective Maintenance Program (CMP), working with SDG&E's eight district
3 operating centers to schedule and report inspections, patrols and corrective actions under CMP
4 standards. Compliance Management also works directly with third-party communication
5 providers on requests and billing for attachments to SDG&E's poles. Because of its role in
6 overseeing and reporting on asset safety and maintenance plans for electric distribution assets,
7 this team was transferred from Electric Regional Operations (ERO) into Asset Management in
8 the third quarter of 2017, but continue to maintain their original duties. This critical compliance
9 function strategically aligns with Asset Management, but is outside the direct scope of the AIM
10 program.

11 **b. Technology Solutions and Reliability**

12 The Technology Solutions and Reliability group is responsible for providing information
13 systems support to technology systems, hardware and software applications used by personnel
14 out in the field and at operating sites. Internal business clients include ERO, Construction
15 Services, Project Management and Distribution and Grid Operations. Their scope includes
16 implementing, enhancing, supporting and troubleshooting approximately 33 system applications,
17 including SAP, GIS, PowerWorkz and Click, to name a few. Similar to Compliance
18 Management, this team was transferred (from ERO) into Asset Management in the third quarter
19 of 2017, due to a strategic alliance with the AIM program. The key asset management objective
20 is to achieve integration between legacy asset systems and new systems developed to establish a
21 central asset data repository. Technology Solutions and Reliability is and will continue to be a
22 separate critical systems support organization outside the direct work of the AIM program.

23 **c. Electric Regional Operations (ERO)**

24 The nature of the ERO organization is described in detail in Mr. Speer's Electric
25 Distribution O&M testimony. ERO contains a critical element of SDG&E's electric operating
26 activities, covering SDG&E's entire service territory. As stated in Mr. Speer's testimony, this
27 organization is responsible for executing inspection and maintenance plans under CPUC general
28 orders, restoration of service after outages, system repairs and troubleshooting, construction and
29 replacement of infrastructure and other customer issues as they arise.²⁶ As mentioned above, the

²⁶ See Ex. SDG&E-15-2R (Speer) at WHS-38-46.

1 Compliance Management and Technology Solutions and Reliability teams were formerly part of
2 this larger ERO organization, but transferred to Asset Management in 3rd quarter 2017 to achieve
3 enhanced alignment with the new AIM organization. The larger ERO organization, less
4 Compliance Management and Technology Solutions, remains as a stand-alone organization. The
5 Compliance Management and Technology Solutions teams will continue to provide critical
6 support to ERO. While ERO plays a pivotal role in executing the asset management plans,
7 particularly for maintenance and construction, they have clear and distinct responsibilities from
8 those of the incremental asset management organization.

9 **4. Planned Future Activities of the AIM Organization**

10 The table below provides a summary breakdown of the key planned activities of the
11 comprehensive asset management program. These activities are further delineated by the
12 responsibility of the incremental centralized AIM group necessary to comport with ISO 55000
13 and those responsibilities of existing SDG&E operating organizations outside of Asset
14 Management. The incremental functions and requirements of the AIM team comport with those
15 shown in Table KD-1 above.

16 //

17 //

18 //

1
2

Table KD-2 – Asset Management Activities: AIM Department versus Existing Organizations

<i>Asset Integrity Management (AIM) Activity</i>	<i>Central AIM Organization (Incremental)</i>	<i>SDG&E Functional Organization (Non-incremental)</i>
Executive oversight of AIM program	<u>Steering Committee Chair:</u> Set priorities, allocate resources, oversee accountability for Asset Management safety and other objectives, providing long-term asset vision and promote culture change.	<u>Steering Committee</u> Operating Unit Vice Presidents (excluding Chair) who own, operate and maintain critical assets
Core Leadership – Strategy, governance, asset plan development, and management.	Provide program leadership, guidance and support in development, monitoring, integration and enhancement of asset plans that focus on asset safety and other corporate objectives. Asset plans leverage best practices in the company and across the industry to achieve the long-term objectives.	<u>Engineering Operations</u> Ownership, implementation and execution of asset plans for specific operating organizations
Asset Planning and management to support the leadership team in implementation	Align asset planning throughout asset lifecycle to optimize asset performance. Coordinate between critical asset operating organizations. Engage all stakeholders across lifecycle of asset. Align safety and other projects to achieve long-term objectives.	<u>Engineering Planning & Design</u> Execution and implementation of asset planning, design and configuration
	Ensure that asset construction aligns with engineering and design.	<u>Construction Services</u> Physical construction and installation of assets
	Provide direction on procurement strategy that aligns with the asset plans.	<u>Supply Management</u> Develop, implement and execute procurement strategy that aligns with asset plans
	Establish governance, analytics, monitoring and reporting of the asset maintenance plans.	<u>Field Operations/Crews</u> Execute maintenance plans in accordance with asset strategies
	Determine risk-based criteria for assets to appraise and prioritize investments based on lifecycle plans. Perform sensitivity analysis to identify costs/benefits	<u>Financial Planning</u> Oversee overall capital budget process and report out monthly results versus plan
Information Systems and Records Mgmt – Data integration and centralization	Maintain and enhance integrated system for managing asset data and records to provide data transparency and accessibility to enable asset strategies that mitigate highest risk and optimize asset value.	<u>Information Technology Teams</u> Provide business and technical support to asset management data systems to support user functionality, information system performance and application accessibility.
Asset Safety Risk and Performance Analysis and Metrics	Develop and evaluate asset plans and alternatives to mitigate risks using criteria consistent with Enterprise Risk Management. Analyze how to optimize asset performance.	<u>Enterprise Risk Management</u> Identify and prioritize key risks and develop criteria for measuring and evaluating risk
Evaluation and Reporting – Continuous Improvement,	Monitor and manage effectiveness of asset management system and apply changes for continuous improvement. In partnership with other teams, develop accountability reports related to risk reduction on asset condition and performance.	<u>Asset Owners, Internal Audit</u> Support quality assurance and control function for each asset class.
Change Management and Communication	Implement change management to educate stakeholders and champion asset management culture across company through various communication forums.	

3

1 Contrary to ORA's assertion that the new centralized asset management organization is
2 duplicative, routine and business as usual, Table KD-2 above demonstrates the distinction of the
3 responsibilities of the incremental asset management team and that of the existing operating
4 divisions, who will continue to maintain the responsibility of asset ownership, implementation of
5 asset strategies and execution of asset plans. Although SDG&E is not a start-up company, as
6 ORA correctly points out, the creation of a central asset management clearly has incremental
7 responsibilities, necessary to develop, implement and sustain a comprehensive and integrated
8 asset management program that complies with the tenets of ISO 55000. SDG&E's AIM initiative
9 is a critical extension of its risk management platform as it relates to mitigating risks associated
10 with its approximately \$10 billion of net assets in service. It also directly aligns with
11 Commission priorities to enhance safety and the mitigation of asset safety risks. This is evident
12 in the new RAMP requirements recently set forth by the Commission, including the mandate to
13 incorporate risk-informed criteria within the GRC and establish accountability reporting to
14 monitor and evaluate the effectiveness of such efforts.

15 Although SDG&E has implemented several advanced initiatives over recent years that
16 effectively incorporate risk-informed criteria in managing assets, some gaps remain to reach a
17 truly comprehensive asset management system that advances our risk management strategy to
18 reach Commission objectives and ISO 55000 requirements, particularly in the areas of the
19 integration of asset strategies, plans and systems and the accessibility and transparency of asset
20 data, risk and performance evaluation. The centralized asset management team was created to
21 launch the AIM program to specifically address the enhancements needed to advance SDG&E's
22 asset management practices into alignment with ISO 55000. The incremental funding requested
23 in Mr. Speers' testimony, as updated in this rebuttal, is essential to carry out this objective and
24 deliver the intended value to ratepayers in the areas of enhancing asset safety, mitigating asset
25 risk, optimizing asset performance and improving economic value of assets.

26 **IV CONCLUSION**

27 For reasons stated above, SDG&E's request to develop, implement and maintain an asset
28 safety and management program that comports to ISO 55000 is appropriate for SDG&E electric
29 assets. Our AIM initiative, aligned to ISO 55000 and subsequently launched shortly after the
30 filing of SDG&E's 2019 GRC application, addresses asset risk and safety as the highest priority,
31 increases the integration and transparency of asset data, and establishes more formalized and

1 objective analytics to optimize asset performance. As described above, ISO 55000 has many
2 similarities with API 1173, which is specific to pipeline operators, including SoCalGas and
3 SDG&E gas operations. Incorporating the tenets of ISO 55000 for electric operations will
4 provide SDG&E with close alignment to API 1173 for electric assets, while allowing opportunity
5 for specific certification which would not be possible under API 1173. Because the development
6 and maintenance of a ISO 55000 asset management program is comprehensive and incremental
7 to what is currently in place, additional resources and funding, as outlined in the direct testimony
8 of Mr. Speer and supplemented in this rebuttal, is critical to achieve the identified objectives and
9 ratepayer benefits.

10 This concludes my prepared rebuttal testimony.

1 **V WITNESS QUALIFICATIONS**

2 My name is Kenneth J. Deremer and my business address is 8330 Century Park Court,
3 San Diego, California 92123. I am currently employed by SDG&E as the Director of Asset
4 Management. My current responsibilities include the development, implementation and
5 oversight of SDG&E's asset management policies, procedures and plans. I assumed my current
6 position in June 2017. Prior to this, I served as the Director of Financial Planning and
7 Regulatory Accounts where I was responsible for the preparation, analysis and oversight of
8 SDG&E's multi-year financial planning process and regulatory account and cost recovery
9 mechanisms since May 2011. Previously, I served as Director of Financial Analysis since
10 January 2009, where my responsibilities included overseeing the financial evaluation of major
11 projects, the development and implementation of financing strategies and the oversight of
12 regulatory account and cost recovery mechanisms for SDG&E and SoCalGas. Previously, I was
13 the Director of Tariffs and Regulatory Accounts since May 2007, where my responsibilities
14 included the implementation and oversight of the utilities' tariffs and regulatory compliance
15 process. Prior to May 2007, I served as the Regulatory Accounts Manager since April 2002. In
16 that position, I managed the process for implementing and maintaining regulatory accounts.

17 Over the past years, I have served testimony in several regulatory proceedings, including
18 the General Rate Case, Cost of Capital and Electric Commodity Cost Recovery (*i.e.*, ERRA). I
19 am also sponsoring SDG&E's proposed Post-Test-Year Ratemaking proposal in this TY 2019
20 GRC proceeding.

21 I have been employed by SDG&E and Sempra Energy since 1991. In addition to my
22 work experience described above, I worked from 1999 through 2002 as a Regulatory Tariff
23 Administrator and held various positions in the Financial Reporting Department.

24 I received a Bachelor's of Science in Business Administration from the University of
25 California, Riverside in June 1987. I also received a Master's in Business Administration, with
26 an emphasis in Finance, from the University of California, Riverside in December 1989.

27 I have previously testified before this Commission.

APPENDIX A
GLOSSARY OF TERMS

AIM	Asset Integrity Management
API	American Petroleum Institute
CMP	Corrective Maintenance Program
ERM	Enterprise Risk Management
ERO	Electric Regional Operations
GRC	General Rate Case
ISO	International Organization of Standardization
O&M	Operations and Maintenance
ORA	Office of Ratepayer Advocates
OSA	The Office of Safety Advocates
RAMP	Risk Assessment Mitigation Phase
SDG&E	San Diego Gas & Electric Company
SED	Safety and Enforcement Division
S-MAP	Safety Model Assessment Proceeding
SMS	Safety Management System
SVP	Senior Vice President
TY	Test Year