BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of San Diego Gas & Electric Company (U902M) for Review of its Safety Model Assessment Proceeding Pursuant to Decision 14-12-025	Application 15-05-002 (Filed May 1, 2015)
And Related Matters	Application 15-05-003 Application 15-05-004 Application 15-05-005 (Consolidated)

(NOT CONSOLIDATED)

Application of San Diego Gas & Electric Company (U 902 M) for Authority, Among Other Things, to Update its Electric and Gas Revenue Requirement and Base Rates Effective on January 1, 2019.	Application 17-10-007 (Filed October 6, 2017)
And Related Matter	Application 17-10-008 (Filed October 6, 2017) (Consolidated)

(REVISED) 2019 SAFETY PERFORMANCE METRICS REPORT OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902 M)

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July 30, 2020

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(REVISED) 2019 SAFETY PERFORMANCE METRICS REPORT OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902 M)

In compliance with Decision (D.) 19-04-020, Safety Model Assessment Proceeding Phase Two Decision Adopting Risk Spending Accountability Report Requirements and Safety Performance Metrics For Investor-Owned Utilities (S-MAP Phase Two Decision), San Diego Gas & Electric Company (SDG&E) submits this revised inaugural annual Safety Performance Metrics Report (2019 SPMR).[1] This 2019 SPMR reports on the applicable 26 safety performance metrics to measure achieved safety improvements,[2] including how metrics are used

[1] In compliance with Decision (D.) 19-04-020, the S-MAP Phase Two Decision, this 2019 SPMR is being filed in and served on Application (A.) 17-10-007/008 (cons.), the "applicable GRC proceeding in which funding for the risk mitigation activities and spending was authorized," and on Application (A.) 15-05-002. D. 19-04-020 (issued May 6, 2019) at Ordering Paragraph 1, p. 61.

[2] Of the currently adopted safety performance metrics, 18 are applicable to SDG&E.

to improve safety training, take corrective action and support risk-based decision making; information on any metrics that may be linked to financial incentives; and a summary of how the reported data reflects progress against the risk mitigation and management goals in the Test Year (TY) 2019 General Rate Cases (GRCs) of Southern California Gas Company (SoCalGas) and SDG&E and the 2016 SoCalGas and SDG&E Risk Assessment Mitigation Phase (RAMP) filing. Attachment "A" constitutes the 2019 Safety Performance Metrics Report and Attachment "B" constitutes 10 years of monthly historical data, where available, for all applicable metrics.[3] This Report was timely filed in accordance with D.19-04-020, the S-MAP Phase Two Decision, however, errors in certain numbers were subsequently identified and this Report corrects those numbers.

Respectfully submitted,

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July 30, 2020

[3] The Commission's Safety and Enforcement Division staff, via the S-MAP Technical Working Group, instructed the utilities to provide metric data in a native file. Excel is not an accepted format for filing at the Commission, accordingly a PDF version of Attachment B will be filed and a native Excel version of Attachment B will be separately served on parties to the S-MAP proceeding, A.15-05-002 and SDG&E's Test Year 2019 GRC proceeding.

2019 Safety Performance Metrics Report

Original Submission March 30, 2020

Revised July 30, 2020

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2019 Safety Performance Metrics Report

March 30, 2020

I. Introduction/Overview

The Commission's *Phase Two Decision Adopting Risk Spending Accountability Report Requirements and Safety Performance Metrics for Investor-Owned Utilities and Adopting a Safety Model Approach for Small and Multi-Jurisdictional Utilities*[1] (S-MAP Phase Two Decision) requires the California investor-owned utilities (IOUs), including San Diego Gas & Electric Company (SDG&E or Company), to annually report on 26 safety performance metrics to measure achieved safety improvements.[2] SDG&E submits this inaugural Safety Performance Metrics Report in compliance with the Commission's directives in the S-MAP Phase Two Decision. For this 2019 report, SDG&E includes ten years of monthly historical data from January 1, 2010 through December 31, 2019, where such data exists, in the accompanying Excel file as Attachment B.[3]

While this is the first annual Safety Performance Metrics Report submitted under the new S-MAP Phase Two Decision requirements, SDG&E has been tracking safety-related metrics for numerous years and uses such metric data as part of its risk-based decision making and continuous improvement processes. Safety metrics provide a baseline for how well our organization is performing. Tracking both leading and lagging indicators and comparing

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1 Decision (D.)19-04-020 (issued May 6, 2019).

2 Not all metrics adopted in D.19-04-020 are applicable to SDG&E.

3 The Commission's Safety and Enforcement Division staff, via the S-MAP Technical Working Group, instructed the IOUs to provide metric data in the native file. Excel is not an accepted format for filing at the Commission; Attachment B is therefore being served on parties to the S-MAP proceeding, Application (A.)15-05-002 and SDG&E's Test Year 2019 GRC proceeding, A.17-10-007, as directed by the S-MAP Phase Two Decision.

historical results provides a baseline of safety and processes and offers the ability to identify opportunities for continuous improvement. Common metrics (*e.g.*, employee injury, controllable motor vehicle incidents, and near miss incidents) are tracked and analyzed and recommendations for safety performance improvements are made, including training, tools, equipment, processes and procedures.

A. Safety Organizational Structure

SDG&E has dedicated teams embedded in the organization whose roles revolve around management of safety-related risks. Currently, SDG&E has four groups that work together to identify and monitor safety risks. These groups include SDG&E's:

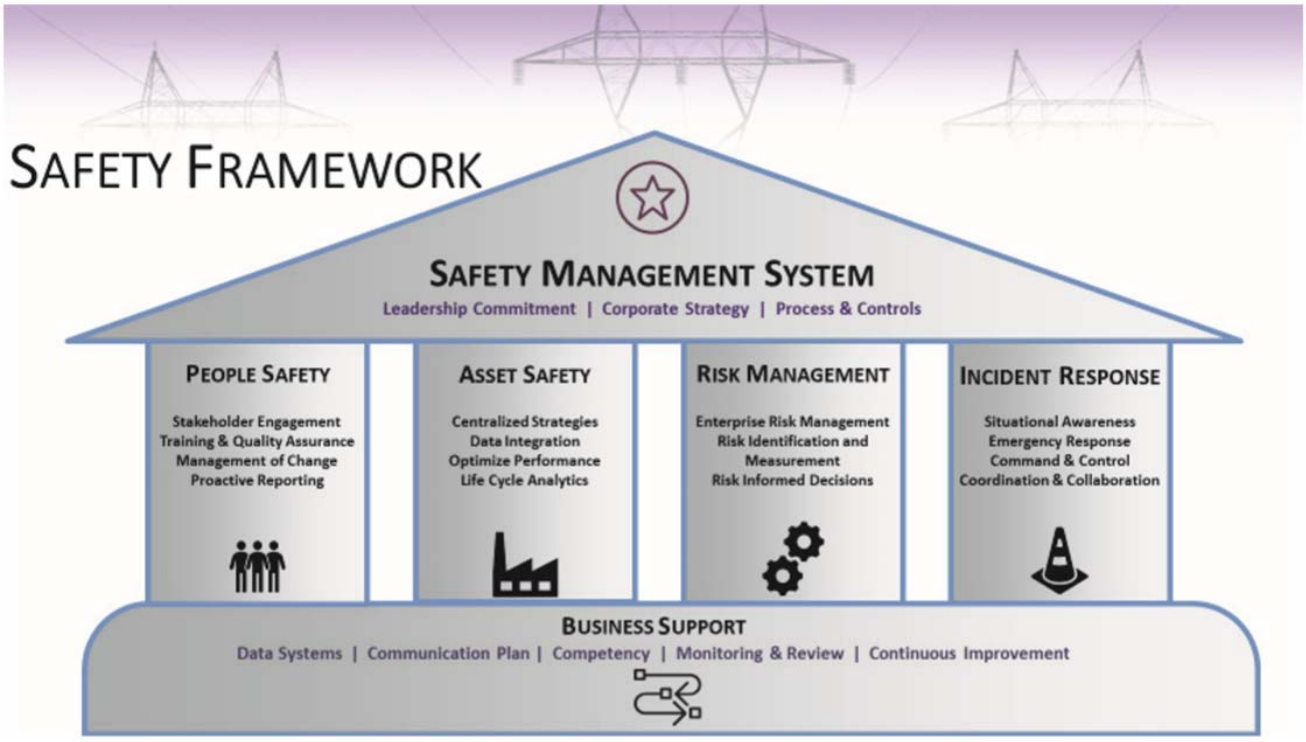
- Safety Department,
- Asset Management Organization,
- Enterprise Risk Management (ERM) Organization, and
- Emergency Management Department.

These groups collaborate to address the Company's safety risks. For instance, SDG&E's ERM organization identifies safety risks through its on-going risk management processes. These risks are shared with the operating units and Company leadership, including leaders of each organization referenced above, through the annual Enterprise Risk Registry process. SDG&E's Asset Management organization looks specifically at the health of assets and asset safety. Again, these findings are shared with the other three groups. Emergency Management, building upon and leveraging the work of the other three groups, develops policies, practices and processes to manage potential consequences, should a risk event occur. SDG&E's Safety department uses information gathered from the other groups to develop policies and practices that are

implemented throughout the entire Company. All four areas participate in meetings coordinated through ERM to confirm alignment of their efforts.

While these four groups currently collaborate and participate in joint meetings to align their efforts and promote safety across the Company, SDG&E also embeds safety practices into its operating groups. This is done in the form of safety procedures and policies that are driven across the Company. SDG&E's endeavor to implement an enterprise-wide Safety Management System (SMS), as discussed below, will further consolidate these groups and embed SDG&E's safety culture throughout all operations, gas, electric and support services, at all levels. The four pillars of SMS are demonstrated in Figure 1, below.

Figure 1 - Safety Framework



B. Safety Governance

SDG&E's safety efforts start at the top with appropriate safety governance. Governed by the Executive Safety Counsel and led by SDG&E's Chief Safety Officer, SDG&E has various safety committees to help inform and educate employees about safety issues throughout all levels of the Company and set meaningful and attainable safety goals throughout the organization. The safety committees also provide an opportunity to receive employee feedback on key safety issues. Company employees attend safety meetings, tailgates (*i.e.,* onsite safety meetings for field employees), and safety congresses, and are surveyed every two years to solicit their candid feedback.

SDG&E has processes, programs, and committees in place that encourage feedback on safety from employees on the management of risks and unsafe practices or incidents. To promote these principles throughout the Company, and to foster a culture of continuous safety improvement, SDG&E continuously strives for a work environment where employees at all levels can raise pipeline and electric infrastructure, customer safety, and employee safety concerns and offer suggestions for improvement. SDG&E encourages two-way formal and informal communication between the company and the public, employees and management, and contractors and the company, in order to identify and manage safety risks before incidents occur. The vision and emphasis on risk management begins at the top, with strong support for the risk management process. SDG&E has an open-door policy that promotes open communication between employees and their direct supervisors. In addition to these culture-based items, there are formal programs designed to encourage employees to speak up if they see unsafe behaviors, such as "Stop the Job." SDG&E also has a Safety Congress as well as safety meetings for field employees that provide safety training, share best practices and promote leadership and

employee engagement. If an employee does not feel comfortable reporting unsafe behaviors and incidents through the above-mentioned avenues, there are anonymous means to do so including the Ethics & Compliance Hotline, employee engagement surveys, and National Safety Council Culture Survey.

SDG&E management reviews results from a variety of safety metrics, including injuries, motor vehicle accidents, near miss incidents, safety observations, and is actively involved in evaluating risk and developing necessary action plans. Safety goals are set with continuous improvement in mind, by focusing on increasing current goals and developing new leading indicators. The number of safety observations performed and near miss reports submitted continue to increase in recent years. A new Company initiative, the Serious Injury and Fatality (SIF) Exposure Assessment Initiative, will focus on developing a SIF decision tree and decision logic, SIF exposure metrics and rates, identifying SIF precursors, using critical controls field verification check sheets, and strengthening corrective actions. Utilizing new technology in our fleet (*i.e.*, vehicle telematics) to improve employee safety will provide data analytics in real-time on driver behavior, fleet utilization, geo-fencing and vehicle health.

The Company has a continuous commitment to mitigating both occupational and process safety risk. SDG&E, all the way to the top levels including the Board of Directors, is deeply committed to the implementation of an enterprise-wide SMS. The SMS will be a company-wide effort throughout the various organizations involved in safety. As one SMS framework, SDG&E is proactively working towards the adoption and implementation of American Petroleum Institute (API) Recommended Practice (RP) 1173[4] and International Organization for

[4] API RP 1173 (July 2015).

Standardization (ISO) 55000[5] in establishing an enterprise wide SMS covering electric operations in addition to gas. In 2017, following the formal release of API RP 1173, SDG&E voluntarily adopted and began to implement the foundational principles of safety management systems for its gas operations. While there is not currently an electric operations SMS similar to the well-vetted API RP 1173, SDG&E Electric Operations' culture largely aligns with the expectations and ten tenants of API RP 1173. Creation of an equivalent of API RP 1173 for electric utilities would be a first for the industry. The work to develop an API RP 1173-based electric operations SMS will align risk and asset management approaches to enhance proactive continuous improvements through risk mitigation based on predictive analysis rather than on experience of incidents or near-misses.

C. Compliance with S-MAP Phase Two Decision Directives

The S-MAP Phase Two Decision approved 26 Safety Performance Metrics (Version 1.0) and requires the IOUs to annually file the metrics and accompanying narratives in any future S-MAP proceedings and in their respective GRC proceedings. The S-MAP Phase Two Decision includes additional reporting requirements that entail describing how metrics are used to improve risk-based decision-making, corrective actions and/or enhanced training, and explaining whether any linkage to financial incentives creates a potential for bias in individual metrics. Sections II and III, below, provide additional detail on these requirements.

The S-MAP Phase Two Decision requested the Commission's Safety and Enforcement Division (SED) reconvene the S-MAP technical working group (TWG) to complete a proposal on SMS metrics and a revised version of an "Electric Overhead Conductor" Index and associated

[5] ISO 55000 (January 2014).

metrics. SDG&E is an active participant in the S-MAP TWG. The S-MAP Phase Two Decision also directed the IOUs to work with SED staff to develop a standardized Safety Performance Metrics Report format. SDG&E worked with SED staff (via the S-MAP TWG) prior to submittal of this inaugural Safety Performance Metrics report to develop a standardized template and an agreed upon format for submittal of this data.

For the Public Serious Injuries and Fatalities (Pub-SIF) metric, Metric No. 22, the S-MAP Phase Two Decision requires the IOUs to provide SED staff with their individual Public-SIF metric data 60 days prior to the due date for each annual Safety Performance Metrics Report.[6] SDG&E complied with this requirement and provided SED with a preview of its Pub-SIF data on January 31, 2020. After submission and review of SDG&E's draft Pub-SIF data, SED informed the IOUs on March 11, 2020 of the designated subcategories for final reporting in this Safety Performance Metrics report. SDG&E includes the designated subcategories for its 2019 Pub-SIF data in Section V.Q, below.

While SDG&E has been tracking many leading and lagging safety-related metrics for numerous years, there are some instances where the definition of the reportable Safety Performance Metric, as adopted by the S-MAP Phase Two Decision, differs from previous external reporting requirements, or data required by the metric has not previously been collected. SDG&E notes these nuances within each metric narrative included in Section V, below. SDG&E will continue to track the Safety Performance Metrics, as adopted, to build upon the data in future Safety Performance Metric Report submissions where ten years of monthly historical data is not yet available and will continue to improve and aim to streamline its data collection efforts.

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6 D.19-04-020 at 19.

Therefore, SDG&E notes that some of the data presented in this inaugural Safety Performance Metric Report should be considered preliminary and subject to further analysis and review.

SDG&E acknowledges that S-MAP and metric data collection is an iterative process and SDG&E will continue to work with SED, Commission staff, and stakeholders to revise and/or add metrics for future reports. SDG&E will continue to improve its data collection efforts, as outlined in SDG&E's November 27, 2019 RAMP submission.[7]

II. Metrics Overview (D.19-04-020, Ordering Paragraph 6D.)

A. Summary

The currently-approved Safety Performance Metrics (Version 1.0) contain four metrics in the "electric" category, nine metrics in the "gas" category, ten metrics in the "injuries" category, and three metrics in the "vehicle" category. Of these 26 metrics, 18 are currently applicable to SDG&E and included within this first Safety Performance Metrics Report. In addition to data for the 18 Safety Performance Metrics SDG&E provides the below narrative for the additional reporting requirements established in D.19-04-020. The below table is summary of SDG&E's annual Safety Performance Metric data for recent years (ten years of monthly historical data, where available, is included in the accompanying Excel file as Attachment B):

[7] Investigation (I.)19-11-010/-011 (cons.), Order Instituting Investigation into Southern California Gas Company's Risk Assessment and Mitigation Phase November 2019 Submission (November 7, 2019) [Pursuant to ALJ Lirag's Ruling of November 21, 2019, Proceedings I.19-11-010 and I.19-11-011 are Consolidated (November 21, 2019)]; *see* Chapter RAMP-G, Lessons Learned.

Table 1- Summary of Applicable Metrics Adopted in D.19-01-020[8]

Category	Risk(s)	Metric	Units	2016	2017	2018	2019
Electric	Wildfire; Transmission Overhead Conductor; Distribution Overhead Conductor Primary	1. Transmission & Distribution (T&D) Overhead Wires Down[9]	Number of wire down events	111	100	95	109
	Wildfire; Transmission Overhead Conductor; Distribution Overhead Conductor Primary	2. Transmission & Distribution (T&D) Overhead Wires Down - Major Event Days[10]	Number of wire down events	142	135	96	112
	Wildfire; Overhead Conductor; Public Safety; Worker Safety	3. Electric Emergency Response	Percentage of time response is within 60 mins	61.97%	62.06%	63.00%	69.19%
	Overhead Conductor; Wildfire Public Safety; Worker Safety; Catastrophic Event Preparedness	4. Fire Ignitions	Number of ignitions	30	23	26	21
Gas	Transmission Pipeline Failure - Rupture with Ignition; Distribution Pipeline Rupture with Ignition (non-Cross Bore); Catastrophic Damage involving Gas Infrastructure (Dig-Ins)	5. Gas Dig-in	The number of 3rd party gas dig-ins per 1,000 USA tags/tickets	2.65	2.77	2.83	2.46

[8] Category, Risks, Metric Names and Units as provided in D.19-04-020, Attachment 1. Of the 26 reportable safety metrics adopted in D.19-04-020, 18 are applicable to SDG&E and are included herein. Ten years of monthly historical data, where available, is provided in accompanying Excel file labeled Attachment B.

[9] Metric No. 1 excludes down distribution secondary wires and "Major Event Days" (typically due to severe storm events) as defined by the Institute of Electrical and Electronics Engineers (IEEE).

[10] Metric No. 2 tracks the number of wire down events including secondary distribution wires and Major Event Days (whereas Metric No. 1 tracks only primary wire down events and excludes secondary wire and Major Event Days) . Instances of secondary damage are tracked; however, SDG&E has not previously tracked secondary wire down events. SDG&E began tracking this metric as of 2020 and will include such data in its annual Safety Performance Metrics Report submissions going forward.

Category	Risk(s)	Metric	Units	2016	2017	2018	2019
	Catastrophic Damage Involving High-Pressure Pipeline Failure	6. Gas In-Line Inspection	Miles Inspected[11]	100	60	1.2	50
	Distribution Pipeline Rupture with Ignition (non-Cross Bore)	8. Shut In The Gas Average Time – Mains	Average (median) time in minutes required to stop the flow of gas	N/A	1400.92	751.56	755.08
	Distribution Pipeline Rupture with Ignition (non-Cross Bore)	9. Shut In The Gas Average Time - Services	Average (median) response time in minutes required to stop the flow of gas	N/A	842.19	411.31	342.40
	Catastrophic Damage Involving Medium Pressure Pipeline Failure	10. Cross Bore Intrusions[12]	Number of cross bore intrusions per 1,000 inspections	N/A	N/A	N/A	N/A
	Distribution Pipeline Rupture with Ignition	11. Gas Emergency Response	Average response time in minutes (mean)	N/A	145.78	52.77	43.04
	Catastrophic Damage Involving High-Pressure Pipeline Failure	13. Percentage of the Gas System that can be Internally Inspected - the ratio of transmission pipe miles that can be inspected	Percentage	66%	67%	67%	67%

[11] Transmission pipelines are required to be assessed at an interval not to exceed seven years. Therefore, intervals may vary year-to-year over the seven-year inspection cycle and data should be viewed across the entire cycle. Ten years of historical data is included in the accompanying Excel file.

[12] SDG&E completed all sewer lateral inspections by 2012; only one cross bore intrusion was found and repaired. Monthly data for 2012 is included in the accompanying Excel file.

Category	Risk(s)	Metric	Units	2016	2017	2018	2019
		internally to all transmission pipe miles[13]					
Injuries	Employee Safety	14. Employee Serious Injuries and Fatalities	Number of Serious Injuries/ Fatalities	1/0	0/0	0/0	1/0
	Employee Safety	15. Employee Days Away, Restricted and Transfer (DART) Rate	DART Cases times 200,000 divided by employee hours worked	1.20	1.07	1.23	1.01
	Contractor Safety	18. Contractor OSHA Recordables Rate	OSHA recordable times 200,000 divided by contractor hours worked associated with work for the reporting utility	1.22	0.92	0.94	1.19
	Contractor Safety	20. Contractor Serious Injuries / Fatalities	Number of work-related injuries or illnesses associated with work for the reporting utility	2/0	0/0	1/0	2/0

[13] Southern California Gas Company (SoCalGas) and SDG&E own and operate an integrated natural gas system. This metric represents the percentage of the gas system that can be internally inspected, otherwise known as in-line inspection or "piggable." All of SDG&E's transmission pipeline is inspected in accordance with 49 CFR Part 192 Subpart O, which identifies in-line inspection, pressure test, and direct assessment.

Category	Risk(s)	Metric	Units	2016	2017	2018	2019
	Contractor Safety	21. Contractor Lost Workday Case Rate	Number of Lost Workday (LWD) cases incurred for contractors per 200,000 hours worked associated with work for the reporting utility	N/A	0.26	0.14	0.40
	Public Safety	22. Public Serious Injuries and Fatalities	Number of Serious Injuries/ Fatalities	2/2	4/1	3/1	2/0
Vehicle	Aviation Safety; Helicopter Operations; Public Safety; Worker Safety; Employee Safety	23. Helicopter/ Flight Accident or Incident	Number of accidents or incidents (as defined in 49 CFR Section 830.5 "Immediate Notification")	0	1	0	0

B. Examples of Improved Training and Corrective Actions

A key objective of the Commission in adopting S-MAP safety metrics is not just tracking but improving the utilities' safety performance.[14] The S-MAP Phase Two Decision therefore requires the IOUs to provide examples of how data contained in this report is used to improve employee and/or contractor training and to take corrective actions aimed at minimizing top risks or risk drivers. While this is the first-submitted Safety Performance Metrics Report, SDG&E has

[14] D.19-04-020 at 28.

been focused on safety metrics, taking corrective actions, and improving training courses throughout the Company's long history. SDG&E's strong safety culture and commitment to further developing processes and programs is designed to manage employee, contractor, customer, and public safety risks.

SDG&E's continuous improvement efforts begin with the continuous assessment of risks identified through the ERM and Asset Management processes. The observations and information captured through the ERM and Asset Management work are used to develop the strategic risk mitigations. The mitigations are implemented through operating and functional units. The implementation status, results and lessons learned are then captured through on-going managerial oversight throughout all layers of management. The results of these oversight efforts are reviewed with the Executive Safety Council and SDG&E's leadership on a regular basis.

SDG&E management reviews results from a variety of safety metrics, including injuries, motor vehicle accidents, near miss incidents, safety observations, and is actively involved in evaluating risk and developing necessary action plans. SDG&E has a healthy safety culture that encourages continuous improvement based on feedback from the front lines and from findings from investigations of incidents and near misses. Safety goals are set with continuous improvement in mind, by focusing on increasing current goals and developing new leading indicators. The work to develop an API 1173-based electric operations SMS will align risk and asset management approaches to enhance proactive continuous improvements through risk mitigation based on predictive analysis rather than on experience of incidents or near-misses.

The Commission has stated that "[a]n effective safety culture is a prerequisite to a utility's positive safety performance record,"[15] and defines "safety culture" as follows:

> An organization's culture is the collective set of that organization's values, principles, beliefs, and norms, which are manifested in the planning, behaviors, and actions of all individuals leading and associated with the organization, and where the effectiveness of the culture is judged and measured by the organization's performance and results in the world (reality). Various governmental studies and federal agencies rely on this definition of organizational culture to define "safety culture." [16]

The Commission has further stated that, under the above definition, a positive safety culture includes a "[a] clearly articulated set of principles and values with a clear expectation of full compliance," and "[e]ffective communication and continuous education and testing."[17] SDG&E fully agrees and has developed values, goals, and practices for a safety culture by advancing its programs, policies, procedures, guidelines, and best practices to improve the safety of its operations.[18] As such, SDG&E has embarked on an initiative to create an enterprise-wide SMS to drive continuous improvement in both its electric and gas operations. Below are three illustrations of recent improvements to training or corrective actions, as directed by the S-MAP Phase Two Decision:

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15 I.15-08-019, Order Instituting Investigation on the Commission's Own Motion to Determine Whether Pacific Gas and Electric Company and PG&E Corporation's Organizational Culture and Governance Prioritize Safety (August 27, 2015) at 4.

16 I.19-06-014, Order Instituting Investigation on the Commission's Own Motion to Determine Whether Southern California Gas Company's and Sempra Energy's Organizational Culture and Governance Prioritize Safety (U904G) (June 27, 2019) at 3 (citation omitted.)

17 *Id.*

18 *See, e.g.,* A.17-10-007/-008 (cons.), Application of San Diego Gas & Electric Company (U902M) for Authority, Among Other Things, to Update its Electric and Gas Revenue Requirement and Base Rates Effective on January 1, 2019 (October 6, 2017) [Proceedings A.17-10-007 and A.17-10-008 are consolidated by Ruling of November 8, 2017], Ex. 03 (SCG/SDGE Day Direct) at DD-28.

1. Example 1: Additional Fire Prevention and Safety Training for SDG&E Field Employees – Metric No. 4

Since wildfires remain one of SDG&E's top risks,[19] SDG&E recently implemented additional fire-related training for targeted employees. All SDG&E employees who have field-related duties must complete annual Wildland Fire Prevention Training, which familiarizes participants with SDG&E's Operations and Maintenance Wildland Fire Prevention Plan and assists in fostering a fire-safe culture. Additionally, annual fire extinguisher training, which includes classroom education and hands-on practice, is required for employees who may use a fire extinguisher as a part of their job duties. All SDG&E employees who have field-related duties must complete Wildfire Smoke Protection Program training designed to protect employees when there is exposure to wildfire smoke above a minimum air quality index threshold.

2. Example 2: Enhanced Safe Driving Training – Metric Nos. 14, 15, 18, 20, 21, and 22

SDG&E's employee safety performance measures have shown overall improvement in recent years, including Controllable Motor Vehicle Incidents (CMVI). As of December 31, 2019, SDG&E's total CMVI stood at 33, compared with 2018's year-end CMVI total of 42. Since CMVIs can contribute to serious injuries or fatalities amongst our employees, contractors, customers or the public, SDG&E is accordingly undertaking initiatives to enhance our safe driving program, including emerging vehicle technologies, safety equipment, and additional Smith System® operator training, as proposed in SDG&E's 2019 RAMP Report filed with the Commission on November 27, 2019 in Docket No. I.19-11-011.[20]

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[19] I.19-10-010/-011 (cons.), *see,* SDG&E's 2019 RAMP, Chapter SDG&E-1.
[20] *See id*., SDG&E's 2019 RAMP, Chapter SDG&E-3.

3. Example 3: Enhanced "Safety in Action" Program – Metric Nos. 14, 20, and 22

SDG&E's enhanced Safety in Action (SIA) initiative will go beyond the existing Behavior Based Safety program to include: Serious Injury and Fatality (SIF) exposure control assessment and metrics development; senior leadership knowledge building and governance; focus on providing site level leaders and front-line workers with the data and skills they need to execute SIF prevention activities; and alignment of existing systems to improve focus on SIF exposures.

The SIA initiative will provide SDG&E with the necessary tools to measure and evaluate SIF exposures, understand SDG&E's specific SIF exposure precursors, and design effective steps to eliminate or mitigate SIF exposure. Through this leading indicator program, a SIF exposure reduction safety process will be developed to include a SIF definition for SDG&E, SIF decision trees, SIF metrics (leading and lagging), and a precursor analysis tool to help reduce SIF exposure. Goals and objectives for the SIA program will be defined and measured, and will consist of clear, concise wording that demonstrates a forward-moving effort to improve safety. This proposal for an enhanced SIA program was included in SDG&E's 2019 RAMP Report filed with the Commission on November 27, 2019 in Docket No. I.19-11-011.[21]

C. Examples of How Safety Performance Metrics Data is Used to Support Risk-Based Decision-Making

Safety is a core value and a foremost consideration at SDG&E. Safety is a major factor in any operational decision. The S-MAP Phase Two Decision requires each IOU to summarize and provide three to five examples of how it is using Safety Performance Metrics Report data to support risk-based decision making. In 2017, SDG&E began its Pipeline Safety Management

[21] *See id.*, SDG&E's 2019 RAMP, Chapter SDG&E-3.

initiative to align the Company's practices with American Petroleum Institute's Recommended Practice 1173 (API RP 1173) and reinforce the Company's safety culture through the integration of business needs and gas operational risks in a systematic manner. Also in 2017, SDG&E established its Asset Integrity Management (AIM) program to develop and implement a comprehensive and sustainable asset management system, encompassing people, process, and technology. AIM utilizes an integrative approach to electric assets for governance, strategy, analytics, and continuous improvement.

Asset management is a critical element of SDG&E's focus on creating sustainable and high-quality asset safety for electric operations, and optimizing asset utilization, while mitigating asset-related risks. This is one element of SDG&E's vision for a safety management system. A comprehensive asset management system, which includes process improvements, data analytics and system solutions, will provide the access to an integration of data throughout the asset life cycle to develop analysis and a health index for critical assets.

With safety as the Company's highest priority, and with the objective of promoting continuous improvement, the Asset Management department has embarked on a cross-functional project of streamlining an end-to-end process on investment prioritization and allocation. This includes incorporating an enterprise-wide, multi-attribute value framework for evaluating capital investments through a data-driven, quantitative risk- and safety-based lens. This value framework will utilize the Company's strategic values and determine standardized value-based metrics to quantitatively compare projects, and thereby enhance the Company's ability to cross-prioritize across portfolios and optimize investment decisions while maintaining effective utilization of ratepayer funds.

1. Example 1: Capital Planning Process and Resource Allocation Methodology

The capital planning process is SDG&E's current annual process for prioritizing funding based on risk informed priorities and input from operations. The capital allocation planning sessions begin with input from functional capital committees that comprise subject matter experts who perform high level assessments of the capital requirements based on achieving the highest risk mitigation at the lowest attainable costs. These requirements are presented to a cross-functional team representing each functional area with capital requests.

This committee reviews the resource requirement submissions from all functional areas, and projects are evaluated against priority by assessing a variety of metrics including safety, cost effectiveness, reliability, security, environmental, strategic, and customer experience. Recommendations for capital spending are then presented to an executive committee for approval. Once the capital allocations are approved, each individual operating organization is chartered to manage their respective capital needs within the capital allotted by the plan. This includes re-prioritizations as necessary to address imminent safety concerns as they arise. Similar to SDG&E's risk evaluation processes, the capital planning process continues to evolve as the Company endeavors to achieve the goal of determining more quantitatively the risk reduction per dollar invested.

2. Example 2: Monitoring and Auditing Wildfire Mitigation Plan Metrics

As described in SDG&E's Wildfire Mitigation Plan, filed February 7, 2020,[22] SDG&E's current monitoring process for the WMP occurs at various levels across the Company. At an enterprise level, SDG&E undergoes an annual risk management process where risk owners and managers update their risk assessments and report to senior leadership and SDG&E's Board of Directors, particularly the Safety Committee of the Board, on the Company's wildfire mitigation activities. As part of that process, the data collected and reported includes risk scores, metrics related to the risk drivers and consequences as well as various other metrics related to the execution progress of the mitigation activities.

In 2019, SDG&E implemented a weekly executive WMP dashboard that monitors and reports on the overall progress of SDG&E's WMP completion efforts. The report begins with the depiction of the seven key WMP metrics proffered to the CPUC as an overall measure as to the effectiveness of SDG&E's WMP. The metrics display data from 2015 through the current year in order to assess trends over time. The report further provides completion data (versus planned) on key programs, which enables leadership oversight on the WMP effort as a whole, while providing the opportunity to identify gaps or deficiencies in implementing the WMP.

Also in 2019, SDG&E began developing a Company-wide data collection program geared to regularly collect progress data and metrics for each of the WMP programs and initiatives. This system utilizes an enterprise-wide IT solution that has been customized to electronically query program owners about the progress of each WMP program and initiative.

[22] Rulemaking (R.)18-10-007, Order Instituting Rulemaking to Implement Electric Utility Wildfire Mitigation Plans Pursuant to Senate Bill 901 (2018) (October 25, 2018), SDG&E Wildfire Mitigation Plan (filed February 7, 2020) (SDG&E WMP) at 43-44.

Depending on the complexity of program, the query will then be sent to program owners on a weekly, monthly, quarterly, or annual basis. Once the data is collected, it will then be articulated in written and graphical forms for leadership review and oversight so that gaps and deficiencies in the programs can be redirected, reprioritized, or altered as necessary.

3. Example 3: Electric Infrastructure Programs Targeting At-Risk Equipment

SDG&E analyzes equipment failure data, reliability data, and ignition data, together with equipment technology innovation in the industry, to propose programs that target high risk equipment. SDG&E's expulsion fuse replacement program, capacitor replacement program, and lightning arrestor replacement programs illustrate how SDG&E is exploring new technology to reduce the risk of equipment failures.

SDG&E utilizes a combination of inspection and maintenance programs to identify and replace at-risk assets before failures occur, as well as proactive replacement programs for aging or obsolete infrastructure in high risk areas. At a high level, a business case must be made for the purpose and need of a project or program that considers program benefits including risk reduction, reliability, costs, impacts, and an alternatives analysis. If the business case is approved, it goes through a quantitative ranking process with other approved programs.

Replacement of asset decisions are based on asset condition and risk, when such information is available. The asset replacement strategies currently employed by SDG&E are listed and defined below.

- **Responsive**: This strategy is utilized to replace an asset or equipment when an asset or equipment is operated until it stops functioning per its specifications. This is a reactionary strategy since the asset is only replaced with it fails. This strategy

may have cost ramifications since it may involve the need for immediate replacement after a failure and may adversely disrupt current operations. It is deployed solely for lower risk assets that do not directly impact public safety or reliability.

- **Time-Based (also known as Interval-Based or Manual Condition-Based):** This strategy is utilized to replace an asset or equipment after a routine cyclical inspection reveals that acceptance criteria is no longer met. The inspection cycle may be determined by regulatory mandate, equipment manufacturer recommendation, or industry best practice. This strategy may also be referred to as "manual condition-based" replacement since the condition is only assessed at the time of inspection.
- **Condition-Based Monitoring**: This strategy is utilized to replace an asset or equipment when certain attributes of the asset or equipment exceed the defined thresholds as alerted by a continuous monitoring system. This strategy requires continuous monitoring and analysis of the key health data of an asset such as age, location, number of operations, electrical loading, and temperature.
- **Risk-Based:** This strategy is utilized to replace an asset or equipment based on the probability and consequence of failure. While the automated condition-based strategy considers the health of the asset, which is often a proxy for the likelihood of failure, the risk-based strategy considers the consequence of failure of the assets in addition to the health of the asset.

Utilizing these risk-based approaches, since 2014, SDG&E has been proactively removing at-risk overhead conductors from its service territory to reduce the risk of wire down

events. These specific at-risk conductors were identified by an established team of subject matter experts across SDG&E that are responsible for reviewing outages and related failed equipment to identify trends within the system. This team was established back in 2010 and further modified in early 2016. As a result of this team, the Fire Risk Mitigation (FiRM), Wire Safety Enhancement (WiSE), 4kV Modernization, and Overhead Public Safety (OPS) programs were established to proactively replace at-risk conductor within strategic locations throughout SDG&E's service territory. The development of such programs has resulted in over 240 miles of at-risk conductors being replaced since 2014.

The asset replacement strategies vary by asset class. These replacement strategies promote public safety and meet or exceed regulatory mandates and industry best practices.

III. Executive Compensation and Bias Controls – Overview (D.19-04-020, Ordering Paragraph 6.A - C.)

A. Executive Incentive Compensation

SDG&E's strong safety culture is demonstrated through use of compensation metrics and key performance indicators to drive improved safety performance. As the Commission stated in D.16-06-054, "[o]ne of the leading indicators of a safety culture is whether the governance of a company utilizes any compensation, benefits or incentive to promote safety and hold employees accountable for the company's safety record."[23] Benefit programs that promote employee health and welfare also contribute to SDG&E's safety performance and culture.

In her Test Year (TY) 2019 GRC testimony, Compensation and Benefits witness Debbie Robinson explained how SDG&E's compensation and benefits programs are designed to focus employees on safety, and that SDG&E has increased emphasis on employee and operational

[23] D.16-06-054 at 153.

safety measures in their variable pay plans, commonly referred to as the Incentive Compensation Plans (ICP), thus bolstering their already strong safety culture and safety performance.[24] Ms. Robinson testified that SDG&E has increased the weighting of the employee and operational safety measures in their variable pay plans since the TY 2016 GRC.[25] Providing even stronger alignment between SDG&E's safety programs and the ICP helps to strengthen the Company's safety culture and signal to employees that safety is the number-one priority.

The S-MAP Phase Two Decision directs the IOUs to identify all metrics linked to or used in any way for the purpose of determining executive compensation levels and/or incentives.[26] In the narrative for each Safety Performance Metric reported herein, SDG&E indicates whether that specific metric is linked for the purpose of determining executive compensation levels and/or incentives (*See* Section V, below). For this 2019 Safety Performance Metrics Report, SDG&E references its 2019 Executive Incentive Compensation Plan (ICP) and 2019 non-executive ICP and indicates whether each metric was tied to these ICPs in 2019. Since this is an annual submission, SDG&E intends to reference the reporting year's ICP (*i.e.*, next year's submission will reference the 2020 ICPs) as these plans are reviewed, updated and may change annually.

SDG&E uses a comprehensive, market-based approach to executive compensation. The compensation and benefits for SDG&E executives are designed to attract, motivate and retain high-performing executives. SDG&E benchmarks its total compensation to market to confirm its competitiveness. SDG&E's executive compensation structure is intended to focus executives on SDG&E's key priorities, the most important of which is safety. Safety is a core value of

[24] A.17-10-007/-008 (cons.), Ex. 208 (SCG/SDG&E Robinson Direct) at DSR-10.
[25] *Id.* at DSR-11.
[26] D.19-04-020 at Ordering Paragraph 6.A.

SDG&E, and thus compensation metrics and key performance indicators are used to drive improved safety performance, as discussed below.

The primary components of SDG&E's executive officer compensation are Base Pay, Variable Pay, and long-term incentives under Sempra Energy's Long-term Incentive Plan. Variable Pay, (sometimes referred to as the "Incentive Compensation Plan" or "ICP"), is an essential component of a competitive total compensation package because it creates focus on and accountability for desired results, improves performance, and facilitates ideas and operational improvements. Variable Pay plans are a prevalent market practice. Under SDG&E's Variable Pay plan, a portion of employee compensation is placed at risk. The Variable Pay plan – at threshold, target, and maximum company performance – are expressed as a percentage of each executive officer's base salary. SDG&E has increased the weighting of safety measures in variable pay plans over the past years, such that safety-related measures comprise 59% of SDG&E's 2019 Executive Incentive Compensation Plan. Performance measures are reviewed and updated annually.

Assembly Bill 1054 (2019) added Section 8389(e)(4) and Section 8389(e)(6) to the Public Utilities Code. These provisions concern an electrical corporation's executive incentive compensation structure, and principles of executive compensation, respectively. An electrical corporation's demonstration of compliance with these statutory provisions is among the requirements necessary for obtaining an annual safety certification. On January 27, 2020, SDG&E submitted documentation of compliance with the executive compensation provisions of Public Utilities Code § 8389(e).

SDG&E's executive incentive compensation structure complies with Public Utilities Code § 8389(e)(4), which requires that the structure "promote safety as a priority and to ensure

public safety and utility financial stability with performance metrics, including incentive compensation based on meeting performance metrics that are measurable and enforceable, for all executive officers, as defined in Section 451.5."[27] The SDG&E compensation component that comprises "executive incentive compensation" is Variable Pay. Safety measures or goals are an important focus of the SDG&E's Variable Pay, as reflected in the sixteen performance goals included with the "Public & Employee Safety Operations" category of SDG&E's 2019 Executive and non-executive Incentive Compensation Plans. These measures, as further described in each applicable metric in Section V below, are designed to incent employees and executives to meet specified safety targets.

SDG&E's Board of Directors determine the safety performance measures and targets to be included in each year's ICP and review and approve the results. The Board meets on a quarterly basis, where meetings begin with a safety briefing and include a regular review of year-to-date safety performance as well as current safety and risk-related topics. The members of the Board have extensive safety and employee safety processes experience. As a part of their oversight roles, the Board may exercise discretion to reduce or eliminate payout for any given safety measure(s) in the event of a work-related fatality or serious injury.

As previously stated, SDG&E, all the way to the top levels and its Board of Directors, is deeply committed to the implementation of an enterprise-wide SMS. The SMS will be a company-wide effort throughout the various organizations involved in safety. . Safety is the top priority for SDG&E and the weighting of the safety measures in the 2019 Executive ICP reflects

[27] California Public Utilities Code Section 451.5(c) defines "executive officer" as "any person who performs policy making functions and is employed by the public utility subject to the approval of the board of directors, and includes the president, secretary, treasurer, and any vice president in charge of a principal business unit, division, or function of the public utility."

this priority. There are no guaranteed monetary incentives in SDG&E's executive compensation structure. Unless performance goals (including safety goals) are met, Variable Pay is reduced or withheld.

B. Bias Controls

Regularly scheduled internal audits are performed by Sempra Energy Audit Services. Audit Services develops an audit plan each year after consultation with SDG&E management to identify and assess risks to the business. Audit Services then implements its plan by independently reviewing and evaluating the business controls in place. Audit Services has full access to all levels of SDG&E management, and to all organizational activities, records, property and personnel relevant to activities under review. Audit Services is authorized to select activities for audit, allocate resources, determine audit scope and apply techniques required to accomplish audit objectives. Audit Services is further authorized to obtain other specialized services from within or outside the organization.

The scope of work conducted by Audit Services is to ascertain that SDG&E's processes and business controls, as designed and maintained by SDG&E management, are adequate and functioning in a manner to help confirm compliance with policies, plans, procedures, laws, regulations and contracts; safeguarding of assets; effectiveness and efficiency of operations; and reliability and integrity of operating and financial information. Strong business controls increase the likelihood of achieving these important objectives. SDG&E management is responsible for taking ownership of, and being accountable for, understanding, establishing, and maintaining effective business controls. Through its independent audit function, Audit Services identifies whether appropriate business controls are in place and evaluates whether they are designed and functioning properly. These collective efforts provide a basis for Audit Services to provide an

independent evaluation to SDG&E management and the Board of Directors as to the adequacy of the Company's overall system of business control. SDG&E management will address any identified deficiencies by Audit Services and develop management corrective actions to resolve the findings. Management corrective actions are assigned a completion date and must be addressed prior to Audit Services closing the audit.

The S-MAP Phase Two Decision directs the IOUs to "[d]escribe the bias controls that the utility has in place to ensure that reporting of the metric(s) has not been gamed or skewed to support a financial incentive goal."[28] SDG&E's 2019 Executive ICP and 2019 non-executive ICP each include 16 separate safety-related performance measures.[29] These safety-related performance measures comprise a mixture of leading and lagging measures and span all lines of business – fire and public safety, gas safety, and electric safety - in order to prevent bias. Bias controls for specific metrics included in this Safety Performance Metrics Report possessing an ICP component are discussed in each metric section below. However, SDG&E's inclusion of 16 separate safety-related performance metrics within the ICP, generally serves as its own control because the company has to perform on all measures to achieve target performance goals; rather than a single measure.

Sempra Energy's Audit Services Department audits SDG&E's annual ICP results and calculations prior to SDG&E Board approval. Each safety-related performance metric is well

[28] D.19-04-020 at Ordering Paragraph 6.C.

[29] For the period of January 1, 2019 to December 31, 2019, SDG&E had in place a "2019 Executive Incentive Compensation Plan" and a "2019 Incentive Compensation Plan." The S-MAP Phase Two Decision defines "executive" as "director or above." Since SDG&E directors are not covered by SDG&E's 2019 Executive Incentive Compensation Plan, SDG&E refers to both the 2019 Executive Incentive Compensation Plan and the 2019 Incentive Compensation Plan" (*i.e.*, the "2019 non-executive Incentive Compensation Plan") herein.

defined in the approved annual ICP plan. SDG&E's annual ICP plans further specify how each metric is tracked.

IV. Interim Risk Mitigation Accountability Report (RMAR) Requirements (D.19-04-020, Ordering Paragraphs 6E – 6F.)

A. How Safety Metrics Reflect Progress Against SDG&E's RAMP and GRC Safety Goals

SDG&E's Test Year (TY) 2019 GRC testimony outlined the Company's goals for future risk management and safety initiatives and presented a vision to integrate risk, asset, and investment management activities over future GRC cycles.[30] SDG&E is progressing on that trajectory, further integrating risk, asset, and investment management into the Company's culture. In its TY 2019 GRC testimony, SDG&E stated that it would continue to expand the use of probabilistic models, data and quantification and explore areas where further quantification would be helpful in addressing other enterprise-level risks. SDG&E' s risk management practices continue to mature as evidenced in SDG&E's November 27, 2019 RAMP submission.[31]

SDG&E is undertaking considerable efforts to align risks with asset management practices and provide additional granularity of risks and asset health through development of operating unit risk registries. As explained by SDG&E witness Diana Day, "[t]he operating unit risk registries are intended to provide each operating unit with a tool to capture its specific risks and enable a more structured management of lower consequence risks that occur more frequently and are dealt with at the operating unit levels. As the operating unit risk registries evolve and mature, they will inform the assessment of risks at the enterprise level and provide improved risk

[30] A.17-10-007/-008 (cons.), Ex. 03 (SCG/SDGE Day Direct) at DD-25 – DD-26, Figure DD-4.
[31] I.19-11-010/-011 (cons.), 2019 RAMP, Chapter RAMP-B, Risk Presentation.

quantification and granularity across the Company."[32] SDG&E continues to work on developing operating unit risk registries in different operating areas of the Company and refining the process.

SDG&E is leveraging its operating unit risk registries to inform internal asset management strategies for the continued integration of risk and asset management. SDG&E is committed to developing an enterprise-wide SMS,[33] which, according to the Office of Safety Advocate (OSA), is "a key tool for achieving safety goals, managing risks and opportunities, and meeting requirements and expectations."[34] A prudent SMS will further integrate risk, safety, and asset management under one framework, as discussed in SDG&E's 2019 RAMP filing.[35] SDG&E continually seeks to implement metrics into its risk-based decision-making processes. Metrics span risk, asset, and investment management and provide a framework to evaluate and monitor asset health and potentially inform and demonstrate progress related to investments.

B. High-level Summary of SDG&E's Total Estimated Risk Mitigation Spending Level as Approved in TY 2019 GRC

D.14-12-025 required the IOU's Risk Mitigation Accountability Report (RMAR) and Risk Spending Accountability Report (RSAR) to together explain how IOU risk mitigation activities and spending are meeting the goals for managing and minimizing the risks identified in the utility's RAMP and GRC submissions. D.19-04-020 found that it was "premature to approve

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32 A.17-10-007/-008 (cons.), Ex. 03 (SCG/SDGE Day Direct) at DD-23.

33 A.17-10-007/-008 (cons.), Ex. 90 (SCG/SDG&E Buczkowski and Geier Rebuttal) at DLB/DLG-5.

34 A.17-10-007/-008 (cons.), Ex. 442 (OSA Contreras Prepared Testimony) at 2-20. OSA was created in response to Senate Bill 62 (Chapter 806, Statutes of 2016) to advocate, on behalf of the interest of public utility customers, for the continuous and cost-effective improvement of the safety management and safety performance of public utilities. Pursuant to the same statute, OSA sunsetted on January 1, 2020.

35 I.19-11-010/-011 (cons.); Chapter RAMP-F Safety Culture.

specific RMAR requirements or to require separate, more general RMARs at this time,"[36] and instead adopted interim RMAR requirements to be included in this Safety Performance Metrics Report. "In the interim, we direct the IOUs to include in their annual Safety Performance Metrics Reports some of the information originally envisioned as belonging in the RMARs."[37]

SDG&E filed its TY 2019 GRC Application on October 6, 2017.[38] Among other things, SDG&E's GRC Application included requests related to mitigating their key safety risks and integrated the results from the Company's RAMP filed on November 30, 2016 (2016 RAMP).[39] SDG&E's 2016 RAMP filing significantly informed the latest TY 2019 General Rate Case results. The below tables provide a high-level summary of SDG&E's total estimated risk mitigation spending as presented in the 2016 RAMP filing and approved in the TY 2019 GRC.

The TY 2019 GRC Decision did not explicitly authorize RAMP activities differently from non-RAMP activities. Instead, the TY 2019 GRC Decision assessed and authorized funding for SDG&E in many instances based on "standard GRC methods, such as the quality of the forecast, counterarguments by intervenors, and whether a given showing met the burden of proof."[40] SDG&E's 2019 RAMP submission presented cost forecasts at the RAMP activity level and SDG&E plans to further incorporate units of work into future GRC submissions, but for purposes of TY GRC 2019 authorized amounts (based on SDG&E's 2016 RAMP submission), SDG&E had to impute authorized amounts for some RAMP mitigation activities. Similarly,

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36 D.19-04-020 at 32.
37 *Id.*
38 A.17-10-007, Application of San Diego Gas & Electric Company (U902M) for Authority, Among Other Things, to Update its Electric and Gas Revenue Requirement and Base Rates Effective on January 1, 2019 (October 6, 2017).
39 I.16-10-015, Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company (November 30, 2016).
40 D.19-09-051 at 22.

SDG&E does not necessarily track costs by RAMP mitigation activity or risk. Rather, SDG&E records costs to O&M cost centers and to various capital budget codes, aligned with their GRC presentations. Since SDG&E's 2016 RAMP and TY 2019 GRC applications were filed, a more quantitative risk methodology and framework for RAMP and GRC filings was approved by the Commission in D.18-12-014. Based on the foregoing, these 2019 figures reflect a transitional time period with presenting the above-noted Commission directives. SDG&E will continue to work with Commission staff and the S-MAP technical working group (as needed) regarding additional details for future reports.

The TY 2019 GRC Decision was approved by the Commission on September 26, 2019, nearly ten months into the test year.[41] The TY 2019 GRC Decision states "[t]he adopted revenue requirement and PTY increases for SDG&E will provide the necessary funds to allow it to operate its electric and natural gas transmission and distribution system safely and reliably and to fulfill customer service functions at reasonable rates."[42] Further, while SDG&E endeavored to "isolate the RAMP activity, to allow the reader to see the dollar request in GRC workpapers,"[43] the TY 2019 GRC Decision stated that the "RAMP portion in Applicants' requests is not presented as separate and distinct from the non-RAMP portions" and "in many instances our decision is not based on risk mitigation but rather on standard GRC methods."[44] Based on this approach, the TY 2019 GRC Decision does not necessarily authorize RAMP activities by line item details.

41 D.19-09-051.
42 D.19-09-051 at 3.
43 Ex. SCG-02-R/SDG&E-02-R, Chapter 3 (York) at JKY-6.
44 D.19-09-051 at 22.

D.19-04-020 directs the IOUs to include an explanation of how the reported safety metric data reflects progress against the safety goals in the utility's RAMP and approved GRC application and a high-level summary of their total estimated risk mitigation spending level as approved in their most recent GRC. SDG&E includes this data in the tables below. Please refer to SDG&E's 2019 Risk Spending Accountability Report for additional detail on spending of activities presented in SDG&E's 2016 RAMP Report and TY 2019 GRC proceeding.

Table 2 - SDG&E Interim RMAR Summary: O&M[45]

SDG&E O&M Details (2019 Direct $000)					
RAMP Chapter	**RAMP Risk Description**	**2019 Actuals**	**2019 Imputed Authorized**	**$ Variance**	**% Variance**
SDG&E-01	Wildfires Caused by SDG&E Equipment	50,480	39.930	10,550	26%
SDG&E-02	Catastrophic Damage Involving Third Party Dig-Ins	4,795	~~4,031~~ 4,009	~~764~~ 786	~~19%~~ 20%
SDG&E-03	Employee, Contractor, and Public Safety	43,015	~~50,267~~ 50,216	~~(7,252)~~ (7,201)	-14%
SDG&E-04	Distributed Energy Resources – Safety and Operational Concerns	59	80	(21)	-26%
SDG&E-05	Major Disturbance to Electrical Service (*e.g.*, Blackout)	0	0	0	0%
SDG&E-06	Fail to Blackstart	15	44	(29)	-66%
SDG&E-07	Cyber Security	9,259	8,217	1,042	13%
SDG&E-08	Aviation Incident	395	440	(45)	-10%
SDG&E-09	Workplace Violence	4,963	5,105	(142)	-3%
SDG&E-10	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	9,316	5,546	3,770	68%
SDG&E-11	Unmanned Aircraft System Incident	277	174	103	59%
SDG&E-12	Electric Infrastructure Integrity	6,702	21,318	(14,616)	-69%
SDG&E-13	Records Management	1,067	9,188	(8,121)	-88%
SDG&E-14	Climate Change Adaptation	325	432	(107)	-25%
SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	9,352	15,143	(5,791)	-38%

[45] This table has been revised consistent with the June 26, 2020 filing of the Revised 2019 Risk Spending Accountability Report at page 18.

SDG&E-17	Workforce Planning	3,052	2,349	703	30%
	Total SDG&E RAMP	**143,071**	~~**162,265**~~ 162,192	~~**(19,193)**~~ (19,121)	**-12%**

SDG&E's 2016 RAMP Report forecasted RAMP activities for years 2017 through 2019. SDG&E's TY 2019 GRC presented capital forecasts for the GRC cycle (*i.e.*, 2019-2021).[46] SDG&E manages its capital projects over the cycle, rather than on a year-by-year basis and intends to catch up on the below-listed projects as this is the first year of the TY 2019 GRC cycle. Further, as the Rate Case Plan Decision states: "The Commission has always acknowledged that utilities may need to reprioritize spending between GRCs. Now, given the evolving reality [of moving to a four-year GRC cycle], that necessity may even be growing."[47] Reprioritizing spending allows utilities to "[r]espond to immediate or short-term crises outside of the RAMP and GRC process,"[48] in accordance with Commission directive. As the Commission has stated: "RAMP and GRCs…are not designed to addresses immediate needs; the utilities have responsibility for addressing safety regardless of the GRC cycle."[49]

Given that SDG&E's TY 2019 GRC was a litigated proceeding, there was a high degree of uncertainty with the outcome. For the first nine months of 2019 (*i.e.*, before the Sept. 26, 2019 decision was approved), SDG&E was managing its business under their previously authorized levels from the TY 2016 GRC, while at the same time addressing safety-related issues

[46] D.20-01-002 at 52, extended the GRC cycle for each large California IOU from three to four years. To facilitate the transition from a three to four-year GRC cycle, the Rate Case Plan Decision "direct[s]… SDG&E to request two additional attrition years (2022 and 2023) in their petition for modification of D.19-09-051."

[47] D.20-01-002 at 38.

[48] D.18-04-016 at 6 n.7 (citing D.16-08-018 at 152).

[49] D.18-04-016 at 6 n.7 (citing D.16-08-018 at 152).

that emerged. The regulatory lag in receiving a GRC decision resulted in variances since the authorized levels from the TY 2019 GRC were unknown.

Now that the outcome of the TY 2019 GRC Decision is known, SDG&E is executing on new and/or incremental programs presented during the TY 2019 GRC proceeding. While some programs may have been slow to start in 2019 and others planned during 2020, implementation of these programs may be further impacted by the recent Covid-19 pandemic. While SDG&E intends to manage such programs over the GRC cycle, the lasting effects of the Covid-19 pandemic are not yet known.

Table 3 - SDG&E Interim RMAR Summary: Capital[50]

SDG&E Capital Details (2019 Direct $000)					
RAMP Chapter	**RAMP Risk Description**	**2019 Actuals**	**2019 Imputed Authorized**	**$ Variance**	**% Variance**
SDG&E-01	Wildfires Caused by SDG&E Equipment	~~151,892~~ 153,253	174,892	~~(23,000)~~ (21,639)	~~-13%~~ -12%
SDG&E-02	Catastrophic Damage Involving Third Party Dig-Ins	6	290	(284)	-98%
SDG&E-03	Employee, Contractor, and Public Safety	19,385	16,770	2,616	16%
SDG&E-04	Distributed Energy Resources – Safety and Operational Concerns	0	0	0	100%
SDG&E-05	Major Disturbance to Electrical Service (*e.g.*, Blackout)	0	0	0	100%
SDG&E-06	Fail to Blackstart	(102)	0	(102)	-100%
SDG&E-07	Cyber Security	2,177	5,445	(3,268)	-60%
SDG&E-08	Aviation Incident	218	0	218	100%
SDG&E-09	Workplace Violence	3,158	4,547	(1,389)	-31%
SDG&E-10	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	5,510	6,437	(927)	-14%

[50] This table has been revised consistent with the June 26, 2020 filing of the Revised 2019 Risk Spending Accountability Report at page 20.

SDG&E-12	Electric Infrastructure Integrity	71,904	181,032	(109,128)	-60%
SDG&E-13	Records Management	6,646	6,646	(0)	0%
SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	58,177	115,988	(57,812)	-50%
	Total SDG&E RAMP	~~**318,972**~~ 320,333	**512,047**	~~**(193,075)**~~ (191,714)	~~**-38%**~~ -37%

As stated above, please refer to SDG&E's 2019 Risk Spending Accountability Report for additional detail on activities presented in SDG&E's 2016 RAMP Report and TY 2019 GRC proceeding, including variance explanations for those activities/programs that meet the CPUC's variance criteria threshold.

V. Approved Safety Performance Metrics (D.19-04-020, Ordering Paragraph 2)

Each of the currently applicable and reportable safety performance metrics, as defined and adopted in the S-MAP Phase Two Decision, are individually discussed below. Each section provides a brief narrative to provide context to the data and a high-level summary. Ten years of monthly historical data is provided in the accompanying Excel file, labeled Attachment B, where such data exists. If the full ten years of monthly historical data is not included for any given metric, SDG&E provides an explanation and is collecting such data on a prospective basis for inclusion in future Safety Performance Metrics Reports. SDG&E will continue to improve and aim to streamline its data collection efforts. Therefore, as noted above, of the data presented in this first Safety Performance Metric Report submission should be considered preliminary and subject to further analysis and review.

A. Metric No. 1: Transmission & Distribution (T&D) Overhead Wires Down

Metric Name and Description per D.19-04-020:[51] "Transmission & Distribution (T&D) Overhead Wires Down. Number of instances where an electric transmission or primary distribution conductor is broken and falls from its intended position to rest on the ground or a foreign object; excludes down distribution secondary wires and "Major Event Days" (typically due to severe storm events) as defined by the [Institute of Electrical and Electronics Engineers] IEEE."

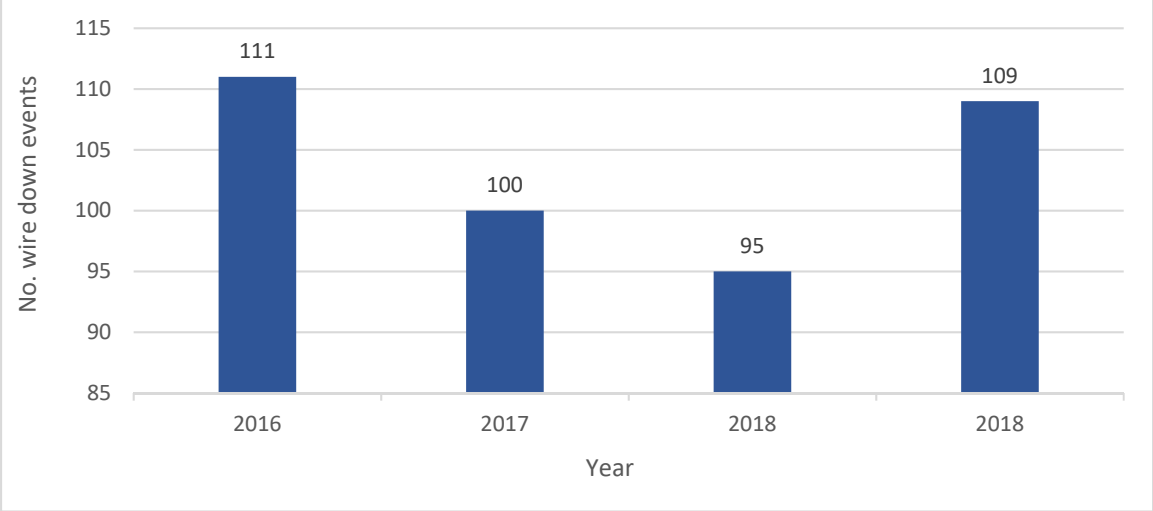
Risks: Wildfire; Transmission Overhead Conductor; Distribution Overhead Conductor Primary.

Category: Electric

Units: Number of wire down events.

Summary:

Summary Chart of T&D Overhead Wires Down Metric Data (Annual)



Narrative Context:

As provided in the metric description, a downed conductor, or "wire down," occurs when a conductor drops or breaks from its designed location on a pole and cross arm and falls from its intended position, possibly in an energized mode. A wire down event is one of SDG&E's primary concerns with respect to its overhead equipment. Accordingly, SDG&E continues to

[51] The metric name and description, risks, category, and units for each metric comes directly from D.19-04-020, Attachment 1.

take proactive measures to determine the cause of any such wire down events and has a dedicated team reviewing all wire down events to determine root cause and identify any trends to potentially trigger the development of a new program. The identification of wire-down events key drivers is captured through a collaboration of data analysis and engineering. These drivers include environmental factors such as high winds or coastal corrosion, third-party contact, weather-caused foreign object contact, human or animal-caused foreign object contact, and degradation due to aging infrastructure.

SDG&E has implemented programs targeting the wire most prone to potential wire down events to decrease this risk. SDG&E utilizes risk modeling to determine segments of circuits that have the greatest risk for energized wire downs and then mitigates through installing larger conductor, covered conductor, reconfiguring the system, and/or deploying advanced protection schemes. The mitigations are included in the capital rebuild and wildfire mitigation programs such as SDG&E's Fire Risk Mitigation (FiRM), Overhead Public Safety (OPS), and Wire Safety Enhancement (WiSE).

Historical Data:

Ten years of monthly historical data is included in the accompanying Excel file for the number of instances where an electric transmission or primary distribution conductor is broken and falls from its intended position to rest on the ground or a foreign object. As noted in the metric definition, this data excludes down distribution secondary wires and "Major Event Days" (typically due to severe storm events) as defined by the IEEE.[52]

[52] The Institute of Electrical and Electronics Engineers defines a Major Event Day as "[a] day in which the daily system SAIDI exceeds a threshold value, TMED. For the purposes of calculating daily system SAIDI, any interruption that spans multiple calendar days is accrued to the day on which the interruption began. Statistically, days having a daily system SAIDI greater than TMED are days on

Is Metric Used for the Purposes of Determining Executive (Director Level or Higher) Compensation Levels and/or Incentives? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. SDG&E's 2019 Executive and non-executive Incentive Compensation Plans include "System and Customer Safety" performance measures. One of these measures is "Fire Hardening: Wood-to-Steel Pole Replacements." While SDG&E's wood to steel pole replacements is aimed at mitigating fire risk, these programs also help mitigate the risk of wire down events. SDG&E has the following systematic programs for changing out wood to steel poles, as included in the 2019 Executive and non-executive ICPs: FiRM, Pole Risk Mitigation Engineering (PRiME); Cleveland National Forest Project (SNF); Corrective Maintenance Program (CMP). When wood poles in the High Fire Threat District (HFTD) need to be replaced, they will be replaced with steel. This goal will be tracked by the project managers of the above-listed programs and verified on the quarterly geographic information system (GIS) reports.

  As stated in Section III, above, SDG&E's Executive and non-executive Incentive Compensation Plans are reviewed and updated on an annual basis. For purposes of this 2019 report submission, SDG&E references the incentive compensation plans in place as of 2019.

Is Metric Linked to the Determination of Individual or Group Performance Goals? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. As described above, SDG&E's 2019 Executive Incentive Compensation and non-executive Incentive Compensation Plans include a System and Customer Safety metric for "Fire Hardening: Wood-to-Steel Pole Replacements." This metric is weighted at 3% of the 59% overall safety weighting for SDG&E's 2019 Executive ICP and 2% of the 34% overall safety weighting for SDG&E's 2019 non-executive ICP.

Is Metric Linked to Executive (Director Level or Higher) Positions? (Ordering Paragraph 6B.)– [Yes/No]

- Yes. SDG&E's Fire Hardening: Wood-to-Steel Pole Replacement metric is linked to all SDG&E director level or higher positions covered by either the 2019 Executive ICP or 2019 non-Executive ICP.

Bias Controls: If any of the above are answered "yes," provide a description of bias controls in place for this specific metric.

- Sempra Energy's Audit Services department audits SDG&E's annual Executive ICP and non-executive ICP results and calculations. Each safety-related performance metric is

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which the energy delivery system experienced stresses beyond that normally expected (such as severe weather). Activities that occur on major event days should be separately analyzed and reported." IEEE Guide for Electric Power Distribution Reliability Indices," in IEEE Std 1366-2003 (Revision of IEEE Std 1366-1998) , vol., no., pp.1-50, 14 May 2004.

well defined in the approved annual ICP plan. The annual ICP plan further specifies how each metric is tracked. SDG&E's ICP performance results are reviewed by the Sempra Energy Audit Services department prior to SDG&E board approval. Additionally, the specific programs/projects noted above within the Fire Hardening ICP metric description are tracked by the project managers and verified on the quarterly GIS reports.

B. Metric No. 2: Transmission & Distribution (T&D) Overhead Wires Down - Major Event Days

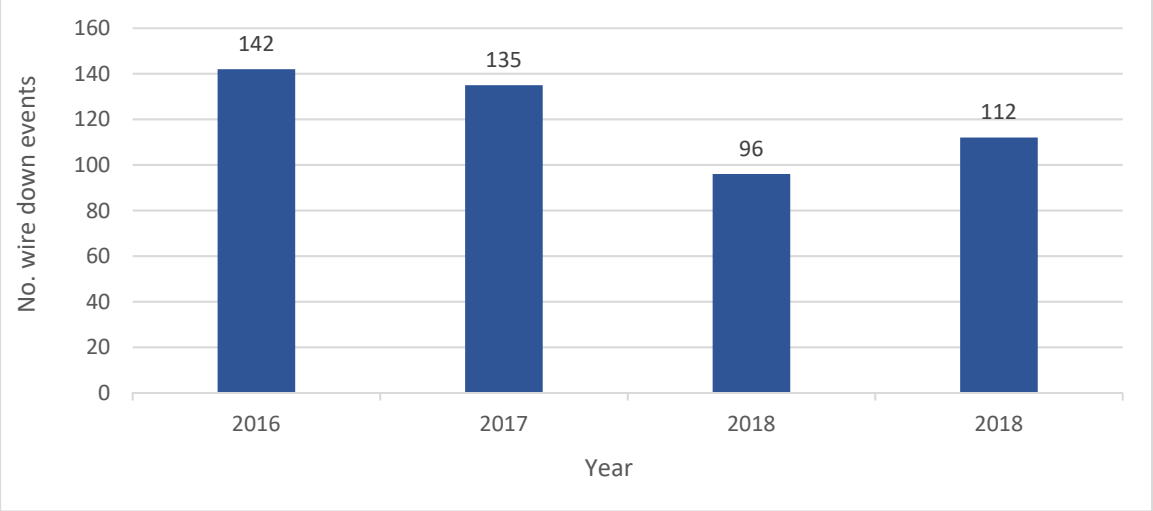
Metric Name and Description per D.19-04-020: "Transmission & Distribution (T&D) Overhead Wires Down - Major Event Days. Number of instances where an electric transmission or primary distribution conductor is broken and falls from its intended position to rest on the ground or a foreign object; includes down secondary distribution wires. Includes "Major Event Days" (typically due to severe storm events) as defined by the IEEE."

Risks: Wildfire; Transmission Overhead Conductor; Distribution Overhead Conductor Primary.

Category: Electric

Units: Number of wire down events

Summary Chart of T&D Overhead Wires Down Metric Data (Annual)



Narrative Context:

As discussed in the previous metric narrative, a downed conductor, or "wire down," occurs when a conductor drops or breaks from its designed location on a pole and cross arm falls from its intended position, possibly in an energized mode. This metric takes into account both secondary wires and Major Event Days. Major Event Days are typically due to severe storm events. SDG&E tracks the number of instances where a primary distribution conductor experiences a wire down in a major event. Instances of secondary damage are tracked; however, SDG&E does not currently track if the event caused a wire down.

Based on the directive in D.19-04-020 to report on this metric, for 2020 and beyond SDG&E will track and report all secondary wire downs.

Historical Data:

Ten years of monthly historical data is included in the accompanying Excel file for the number of instances where an electric transmission or primary distribution conductor is broken and falls from its intended position to rest on the ground or a foreign object. This metric definition includes down secondary distribution wires and Major Event Days as defined by the IEEE. However, as stated above, SDG&E did not track down secondary distribution wires prior to 2020. Therefore, the data provided includes instances of downed primary distribution conductor, including Major Event Days (Metric No. 1 includes instances of downed primary conductor but excludes Major Event Days). SDG&E is currently evaluating initiatives to track instances of down secondary wire for inclusion in future Safety Performance Metrics Reports.

Is Metric Used for the Purposes of Determining Executive (Director Level or Higher) Compensation Levels and/or Incentives? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. SDG&E's 2019 Executive and non-executive Incentive Compensation Plans include "System and Customer Safety" performance measures. One of these measures is "Fire Hardening: Wood-to-Steel Pole Replacements." While SDG&E's wood to steel pole replacements is aimed at mitigating fire risk, these programs also help mitigate the risk of wire down events. SDG&E has the following systematic programs for changing out wood to steel poles, as included in the 2019 Executive and non-executive ICPs: FiRM, Pole Risk Mitigation Engineering (PRiME); Cleveland National Forest Project (SNF): Corrective Maintenance Program (CMP). When wood poles in the High Fire Threat District (HFTD) need to be replaced, they will be replaced with steel. This goal will be tracked by the project managers of the above-listed programs and verified on the quarterly GIS reports.

  As stated in Section III, above, SDG&E's Executive and non-executive Incentive Compensation Plans are reviewed and updated on an annual basis. For purposes of this 2019 report submission, SDG&E references the incentive compensation plans in place as of 2019.

Is Metric Linked to the Determination of Individual or Group Performance Goals? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. As described above, SDG&E's 2019 Executive Incentive Compensation and non-executive Incentive Compensation Plans include System and Customer Safety metrics for "Fire Hardening: Wood-to-Steel Pole Replacements." This metric is weighted at 3% of the 59% safety weighting for SDG&E's 2019 Executive ICP and 2% of the 34% safety weighting for SDG&E's 2019 non-executive ICP.

Is Metric Linked to Executive (Director Level or Higher) Positions? (Ordering Paragraph 6B.)– [Yes/No]

- Yes. SDG&E's Fire Hardening: Wood-to-Steel Pole Replacement metric is linked to all SDG&E director level or higher positions covered by either the 2019 Executive ICP or 2019 non-executive ICP.

Bias Controls: If any of the above are answered "yes," provide a description of bias controls in place for this specific metric.

- Sempra Energy's Audit Services department audits SDG&E's annual Executive ICP and non-executive ICP results and calculations. Each safety-related performance metric is well defined in the approved annual ICP plan. The annual ICP plan further specifies how each metric is tracked. SDG&E's ICP performance results are reviewed by the Sempra Energy Audit Services department prior to SDG&E board approval. Additionally, the specific programs/projects noted above within the Fire Hardening ICP metric description are tracked by the project managers and verified on the quarterly GIS reports.

C. Metric No. 3: Electric Emergency Response

Metric Name and Description per D.19-04-020: "Electric Emergency Response. The percent of time utility personnel respond (are on-site) within one hour after receiving a 911 (electric related) call, with on-site defined as arriving at the premises to which the 911 call relates."

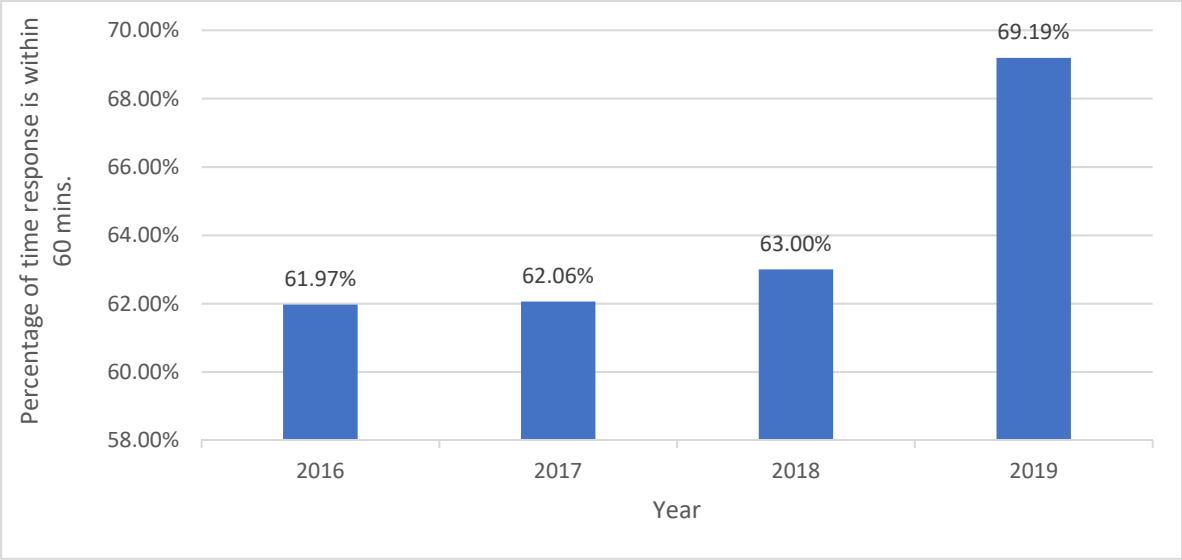
Risks: Wildfire; Overhead Conductor; Public Safety; Worker Safety

Category: Electric

Units: Percentage of time response is within 60 minutes

Summary:

Summary Chart of Electric Emergency Response Metric Data (Annual)



Narrative Context:

Electric emergency response data has historically been collected by SDG&E; however, the data has not previously been compiled purposes of external reporting. SDG&E has consistently improved electric emergency response times over recent years and is evaluating multiple initiatives and strategies to (1) further improve response times and (2) improve data collection and reporting efforts.

Currently, arrival times rely on manual input by the responding troubleshooter(s). SDG&E recently identified that the raw data sometimes reflects a delay in the actual on-site arrival time as some troubleshooters may not immediately input this data point until they have adequately addressed the emergency at-hand. Therefore, since June 2019, SDG&E has implemented data collection and auditing enhancements to more accurately reflect on-site arrival times.

SDG&E receives over 1,500 electric emergency calls (via 911) per year. SDG&E is evaluating potential enhancements to improve electric emergency response times and improve data collection efforts. For example, starting in 2020, SDG&E plans to deploy advanced vehicle telematics that may be used to better determine troubleshooters' time of departure and on-site arrival.

Historical Data:

Ten years of monthly historical data is included in the accompanying Excel file. The data captures the percent of time SDG&E personnel respond (are on-site) within one hour after receiving a 911 (electric related) call, with on-site defined as arriving at the premises to which the 911 call relates. As noted above, this is the first instance of electricity emergency response data being compiled for purposes of external regulatory reporting. SDG&E's review of historical data identified instances in delayed reporting of actual on-scene arrival times. Therefore, SDG&E has conducted a manual review of electricity emergency response data for recent months (June 2019 through December 2019). Data for June 2019 through December 2019, as reflected in the accompanying Excel file, has been adjusted to correct anomalies resulting from human error (*e.g.*, technician did not manually click 'onsite' when arrived on scene), system errors (*e.g.*, application downtime or outage) and/or duplicate orders. Given the manual nature of this review, SDG&E did not review (or adjust) data prior to June 2019. Further, the underlying 911 source data remains unchanged. SDG&E is currently evaluating processes to improve data collection efforts for this metric going forward.

Is Metric Used for the Purposes of Determining Executive (Director Level or Higher) Compensation Levels and/or Incentives? (Ordering Paragraph 6A.)– [Yes/No]

- No

Is Metric Linked to the Determination of Individual or Group Performance Goals? (Ordering Paragraph 6A.)– [Yes/No]

- No

Is Metric Linked to Executive (Director Level or Higher) Positions? (Ordering Paragraph 6B.)– [Yes/No]

- No

Bias Controls: If any of the above are answered "yes," provide a description of bias controls in place for this specific metric.

- N/A

D. Metric No. 4: Fire Ignitions

Metric Name and Description per D.19-04-020: "Fire Ignitions. The number of powerline-involved fire incidents annually reportable to the CPUC per Decision 14-02-015. A reportable fire incident includes all of the following: 1) Ignition is associated with a utility's powerlines [electric equipment] and 2) something other than the utility's facilities burned and 3) the resulting fire [was self-propagating and] traveled more than one meter from the ignition point."

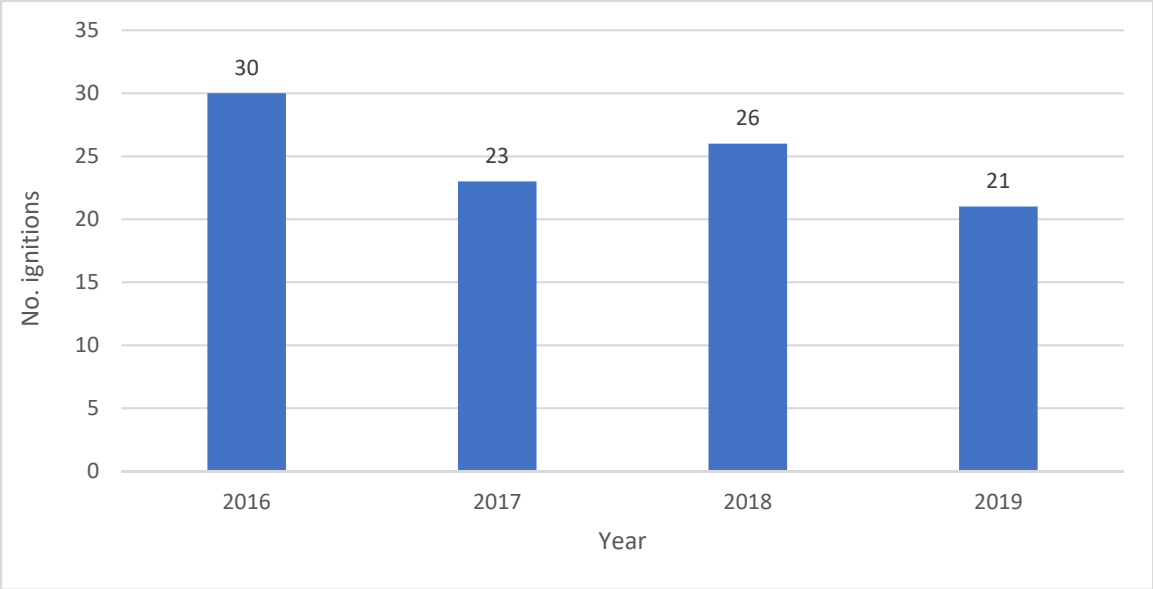
Risks: Overhead Conductor; Wildfire; Public Safety; Worker Safety; Catastrophic Event Preparedness.

Category: Electric

Units: Number of ignitions

Summary:

Summary Chart of Fire Ignitions Metric Data (Annual)



Narrative Context:

SDG&E operates its system with safety as its top priority. When operating conditions reach elevated or extreme levels, SDG&E implements operating protocols that reduce the risk of ignitions on the system. This can be in the form of disabling automatic reclosing, enabling enhanced protection settings, work restrictions, and in the most extreme cases as a last resort, shutting off the power to the specific areas that experience the extreme risk. Additionally, as described above in Section II.B.1, all SDG&E field employees are required to take an annual training course that focuses on fire prevention and mitigations.

The latest climate projections trend towards the continuation of warmer and dryer conditions, which results in a macro trend of fuels being more receptive to ignition and fire growth. If not mitigated, this trend is likely to lead to an increase in ignition from all sources. SDG&E's wildfire mitigation initiatives, as outlined in SDG&E's 2020 Wildfire Mitigation Plan

(SDG&E WMP),[53] attempt to address both the likelihood of an ignition and reduction of the consequences of an ignition should one occur. Over the next three years, SDG&E intends to use data gathered through its mitigation initiatives to identify increased areas of risk and educate mitigation activities.

Over the past five years in SDG&E's service territory, the two primary groups of ignition drivers that impact the ignition probability and the consequence of ignition are contact from an outside force on utility infrastructure and equipment failure. Outside forces leading to ignitions comprise items ranging from foil balloons to flying patio umbrellas. For instance, there were twenty-two (22) CPUC-reportable fires caused by foil balloons within SDG&E's service territory during the past five years. Electric equipment also has a wide range of ignition sources. Both the ignition probability and the consequence of a fire are impacted by the fuel loading near the ignition point.

In 2019, SDG&E established a pilot Ignition Management Program (IMP). The purpose of this program is to track ignitions and potential ignitions in order to perform an analysis on ignitions or potential ignitions to detect patterns or correlations. These events are documented and analyzed. When patterns or correlations are identified, the outcomes are communicated and assigned to mitigation owners from the business unit most logically positioned to eliminate or reduce future events of a similar nature. This data will be used to inform metrics, operational practices, and system hardening in the future.

To reduce the probability of equipment failure leading to an ignition, SDG&E has, over the past decade, focused on hardening its electric system with programs like FiRM and

[53] Filed Feb. 7, 2020.

Cleveland National Forest Project (CNF). Recently, these system hardening efforts expanded to include the replacement of hotline clamps, expulsion fuses, and SCADA capacitors. SDG&E monitors for new emerging ignition concerns using its Ignition Management Program. In addition to all of these mitigation activities, SDG&E has developed, maintained, and continues to expand its extensive Vegetation Management Program, which inspects and maintains clearances between electric facilities and vegetation. SDG&E also partners with fire agencies, community groups, and landowners to implement fuels management projects in areas that will reduce the likelihood of an ignition becoming a wildfire.

In Decision 14-02-015, the CPUC adopted a Fire Incident Data Collection Plan that requires certain investor-owned electric utilities to collect and annually report certain information that would be useful in identifying operational and/or environmental trends relevant to fire-related events. The purpose of this reporting is to improve regulations and internal utility standards to reduce the likelihood of fires. Reporting requirements are limited to reportable fire events that meet the following criteria:

- A self-propagating fire of material other than electrical and/or communication facilities,
- The resulting fire traveled greater than one linear meter from the ignition point, and
- The utility has knowledge that the fire occurred.

Since external reporting of this metric began in 2014,[54] SDG&E has had only three reportable fires over 10 acres. All other CPUC-reportable fires have been less than 10 acres. As

[54] D.14-02-015.

stated above, external factors such as vehicles contacting electric equipment, foil balloons, and human activity are shown to have a large impact on the yearly number of reportable fires.

Historical Data:

Monthly historical data is provided in the accompanying Excel file for years 2014 through 2019 for the number of powerline-involved fire incidents annually reportable to the CPUC per Decision 14-02-015. As noted in the metric definition, a reportable fire incident includes all of the following: "1) Ignition is associated with a utility's powerlines [electric equipment] and 2) something other than the utility's facilities burned and 3) the resulting fire [was self-propagating and] traveled more than one meter from the ignition point." External reporting requirements of this data began in 2014. Therefore, SDG&E does not have data for this metric for years prior to 2014. SDG&E will continue to track this metric for inclusion in future Safety Performance Metrics Reports, until a full ten years of historical data is provided. This data is also submitted to the CPUC annually as part of SDG&E's Wildfire Mitigation Plan reportable metrics.[55]

Is Metric Used for the Purposes of Determining Executive (Director Level or Higher) Compensation Levels and/or Incentives? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. SDG&E's 2019 Executive and 2019 non-executive ICP plans include the following "Fire and Public Safety" performance measures aimed at reducing the risk of fire ignitions:
    - Fire Hardening: Wood-to-Steel Pole Replacements – The goal of this program is to replace wood poles with steel poles to reduce fire risk. SDG&E has the following systematic programs for changing out wood to steel poles:
        - Fire Risk Mitigation (FiRM); Wood to Steel Transmission Pole Change Outs; Pole Risk Mitigation Engineering (PRiME); Cleveland National Forest Project (CNF): Corrective Maintenance Program (CMP) – When wood poles in the High Fire Threat District (HFTD) need to be replaced, they will be replaced with steel. This goal will be tracked by the project managers in the above programs and verified on the quarterly GIS reports.

[55] *See*, SDG&E WMP.

- Wildfire Safety Communications – Measures the percentage of fire safety messages confirmed as received by customers that are sent prior to an imminent Public Safety Power Shut-Off event. The delivery of this message notifying customers of an imminent loss of power generally occurs 1-2 hours before a circuit or portion of a circuit is deenergized.

As stated in Section III, above, SDG&E's Executive and non-executive Incentive Compensation Plans are reviewed and updated on an annual basis. For purposes of this 2019 report submission, SDG&E references the incentive compensation plans in place as of 2019.

Is Metric Linked to the Determination of Individual or Group Performance Goals? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. As described above, SDG&E's 2019 Executive Incentive Compensation and 2019 non-executive Incentive Compensation Plans include safety metrics for "Fire Hardening: Wood-to-Steel Pole Replacements" and "Wildfire Safety Communications." These metrics are each weighted at 3% of the 59% safety weighting for SDG&E's 2019 Executive ICP and 2% (Fire Hardening) and 1% (Wildfire Safety Communications) of the 34% safety weighting for SDG&E's 2019 non-executive ICP.

Is Metric Linked to Executive (Director Level or Higher) Positions? (Ordering Paragraph 6B.)– [Yes/No]

- Yes. SDG&E's Fire Hardening: Wood-to-Steel Pole Replacements and Wildfire Safety Communications metrics are linked to all SDG&E director level or higher positions covered by either the 2019 Executive ICP or 2019 non-executive ICP.

Bias Controls: If any of the above are answered "yes," provide a description of bias controls in place for this specific metric.

- Sempra Energy's Audit Services department audits SDG&E's annual Executive ICP and non-executive ICP results and calculations. Each safety-related performance metric is well defined in the approved annual ICP plan. The annual ICP plan further specifies how each metric is tracked. SDG&E's ICP performance results are reviewed by the Sempra Energy Audit Services department prior to SDG&E board approval. Additionally, the specific programs/projects noted above within the Fire Hardening ICP metric description are tracked by the project managers and verified on the quarterly GIS reports.

E. Metric No. 5: Gas Dig-In

Metric Name and Description per D.19-04-020: "Gas Dig-in: The number of 3rd party gas dig-ins per 1,000 Underground Service Alert (USA) tags/tickets for gas. Excludes fiber and Electric tickets. A gas dig-in refers to any damage (impact or exposure) that results in a repair or replacement of underground gas facility as a result of an excavation. A third-party dig-in is damage caused by someone other than the utility or a utility contractor."

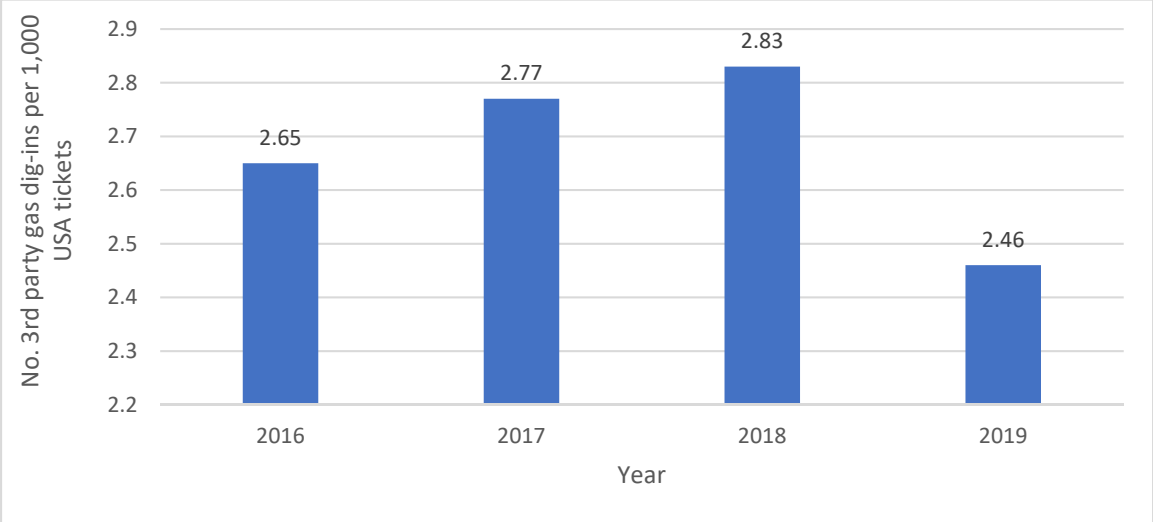
Risks: (1) Transmission Pipeline Failure - Rupture with Ignition, (2) Distribution Pipeline Rupture with Ignition (non-Cross Bore). (3) Catastrophic Damage involving Gas Infrastructure (Dig-Ins).

Category: Gas

Units: The number of 3rd party gas dig-ins per 1,000 USA tags/tickets.

Summary:

Summary Chart of Gas Dig-In Metric Data (Annual)



Narrative Context:

SDG&E began tracking this metric in 2014; however, regulations were not enacted requiring external reporting of this data until 2017.[56] Over the time period SDG&E has been tracking this metric, SDG&E has seen an increased volume in USA tickets. Third party gas dig-

[56] 49 Code of Federal Regulations (C.F.R.) § 192, *et al.*; *id.* at § 196; California Government Code § 4216, General Order (GO) 112-F; API RP 1162 (December 2003).

ins is an identified RAMP risk for SDG&E. SDG&E's November 2019 RAMP submission included chapters for both medium- and high-pressure pipeline risk of third-party dig-ins.[57] SDG&E managed over 160,000 811 USA tickets and reported over 300 dig-in excavation damages in 2019. Analysis of reported damage incidents shows that approximately 50% were due to a lack of notification to 811 USA for a locate and mark ticket and another approximate 34% were due to insufficient excavation practices even after the excavator called 811 USA and underground facilities were marked.[58]

In addition to direct involvement with excavators and 811 USA, SDG&E engages in promoting safe digging practices through its Public Awareness Program[59] and corporate safety messaging through stakeholder outreach. The message is presented by way of multi-formatted educational materials through mail, email, social media, television, radio, events, and association sponsorships. The California Dig Board established conducting investigations of incidents and will start issuing violations and fines to third parties in July 2020.

Historical Data:

Monthly data is provided in the accompanying Excel file for years 2014 through 2019 for the number of third-party gas dig-ins per 1,000 USA tickets. The data included herein is a subset of the data submitted annually to PHMSA. The data submitted annually to PHMSA reports the number of instances of third-party dig-in whereas the data included here reports a percentage of third-party dig-ins per 1,000 USA tickets. While SDG&E does not have ten years of historical data for this first annual report submission, SDG&E will continue tracking this metric and will

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[57] I.19-11-010/-011 (cons.), *see,* 2019 RAMP, Chapters SDG&E-7, Third Party Dig-in Medium Pressure and SDG&E-9, Third Party Dig-in High Pressure.

[58] Common Ground Alliance, *CGA Released 2018 Damage Information Reporting Tool (DIRT) Report*, *available at* https://commongroundalliance.com/DIRT.

[59] API RP 1162.

build upon the historical data in each future submission until a full ten years of monthly, historical data is provided.

Is Metric Used for the Purposes of Determining Executive (Director Level or Higher) Compensation Levels and/or Incentives? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. SDG&E's 2019 Executive Incentive Compensation and 2019 non-executive Incentive Compensation Plans include a gas safety metric for "Damage Prevention (Damages per USA Ticket Rate)." For ICP purposes, the Damage Prevention (Damages per USA Ticket Rate) consists of the number of damages that cause a gas leak to SDG&E's below ground facilities and the total number of received USA Ticket transmittals. This is a standard industry metric for measuring operator performance for damage prevention. To calculate this metric, the number of damages is normalized by the number of USA tickets and multiplied by 1,000 to obtain the number of damages per 1,000 tickets. Normalizing by ticket count factors in the year-to-year variation in construction and excavation activities that have a direct influence on damages. This allows for measurable year-to-year performance, allowing this metric to be used as an indicator for success of risk reduction activities.

  As stated in Section III, above, SDG&E's Executive and non-executive Incentive Compensation Plans are reviewed and updated on an annual basis. For purposes of this 2019 report submission, SDG&E references the incentive compensation plans in place as of 2019.

Is Metric Linked to the Determination of Individual or Group Performance Goals? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. As described above, SDG&E's 2019 Executive Incentive Compensation and non-executive Incentive Compensation Plans include a gas safety metric for "Damage Prevention (Damages per USA Ticket Rate)." This metric is weighted at 3% of the 59% safety weighting for SDG&E's 2019 Executive ICP and 2% of the 34% safety weighting for SDG&E's 2019 non-executive ICP.

Is Metric Linked to Executive (Director Level or Higher) Positions? (Ordering Paragraph 6B.)– [Yes/No]

- Yes. SDG&E's Damage Prevention (Damages per USA Ticket Rate)" metric is linked to all SDG&E director level or higher positions covered by either the 2019 Executive ICP or 2019 non-executive ICP.

Bias Controls: If any of the above are answered "yes," provide a description of bias controls in place for this specific metric.

- Sempra Energy's Audit Services department audits SDG&E's annual Executive ICP and non-executive ICP results and calculations. Each safety-related performance metric is

well defined in the approved annual ICP plan. The annual ICP plan further specifies how each metric is tracked. SDG&E's ICP performance results are reviewed by the Sempra Energy Audit Services department prior to SDG&E board approval.

F. Metric No. 6: Gas In-Line Inspection

Metric Name and Description per D.19-04-020: "Gas In-Line Inspection: Total miles of transmission pipe inspected by in-line inspection."

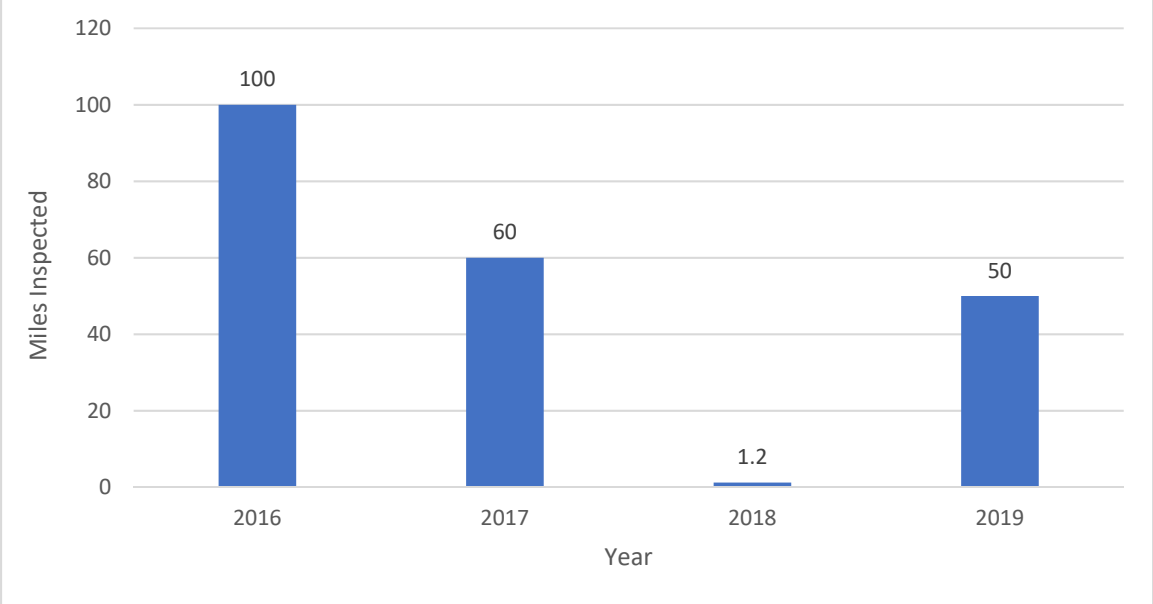
Risks: Catastrophic Damage Involving High-Pressure Pipeline Failure

Category: Gas

Units: (1) Miles Inspected, (2) Total number of inspections scheduled/total number of targeted inspections

Summary:

Summary Chart of Gas In-Line Inspection Metric Data (Annual)



Narrative Context:

The SDG&E transmission and distribution system spans from the California-Mexico border to the Pacific Ocean and to the SoCalGas territory border.[60] SDG&E's Transmission

[60] SDG&E and SoCalGas own and operate an integrated natural gas system.

Integrity Management Program (TIMP) is federally mandated to identify threats to transmission pipelines in High Consequence Areas (HCAs), determine the risk posed by these threats, schedule prescribed assessments to evaluate these threats, collect information about the condition of the pipelines, take actions to minimize applicable threat and integrity concerns to reduce the risk of a pipeline failure. At a minimum of every seven years transmission pipelines located within HCAs are assessed using In-Line-Inspection (ILI), Direct Assessment or Pressure Test and remediated as needed.

Detected anomalies are classified and addressed based on severity with the most severe requiring immediate actions. Remediations reduce risk by addressing areas where corrosion, weld or joint failure, or other forces are occurring or has occurred. Post-assessment pipeline repairs, when appropriate, and replacements are intended to increase public and employee safety by reducing or eliminating conditions that might lead to an incident. ILI is the primary assessment method used to identify potential pipeline integrity threats. When a threat is identified, SDG&E takes immediate action to reduce risk until a repair is completed. These actions involve removing a pipeline from service or reducing operating pressure. In cases where the assessment involves a pressure test, immediate remediation is also required as the pressure test cannot be completed until the pipeline is repaired.

TIMP reduces the risk of failure to the pipeline transmission system and on a continual basis evaluates the effectiveness of the program and scheduled assessments. TIMP Risk Assessment evaluates the Likelihood of Failure (LOF) using the nine threat categories (1. External Corrosion; 2. Internal Corrosion; 3. Stress Corrosion Cracking; 4. Manufacturing; 5. Construction; 6. Equipment; 7. Third Party Damage; 8. Incorrect Operations; and 9. Weather Related and Outside Force) for transmission pipelines located within a HCA. Pipeline

operational parameters and the area near the pipeline are considered to evaluate Consequence of Failure (COF). The LOF multiplied by the COF produces the pipelines Relative Risk Score. Further information is collected about the physical condition of transmission pipelines through integrity assessments. Action is taken to address applicable threats and integrity concerns to increase the safety and preclude pipeline failures.

The numbers and types of TIMP activities vary from year to year and are based on the timing of previous assessments done on the same locations. Approximately 132 miles out of 232 miles of SDG&E's transmission pipelines are located in HCA areas. The High-Pressure Integrity & Analysis Department actively reviews pipelines assessed using the External Corrosion Direct Assessment (ECDA) methodology following completion of the assessment to identify candidate pipelines for future ILI.

Historical Data:

SDG&E began tracking the total miles of transmission pipe inspected by ILI in 2010 and provides annual data for years 2010 through 2019 in the accompanying Excel file. The miles inspected by ILI is an annual metric that is currently reported in Part F of the PHMSA Gas Transmission and Gathering Annual Report F 7100.2-1. Therefore, monthly values have not historically been tracked or provided. The numbers of assessment and mitigation activities planned under TIMP varies from year to year. For TIMP, this is primarily based on the timing and intervals of prior assessments. Transmission pipelines are required to be assessed at an interval not to exceed seven years. Therefore, intervals may vary year-to-year over the seven-year inspection cycle and data should be viewed across the entire TIMP cycle. Further, within TIMP, when an area requires remediation or immediate attention based on assessment results,

prompt action is taken for the safety of public and personnel working on the pipeline, which may include pressure reduction or removing pipelines from service until a repair can be completed.

The secondary unit of measure included for this metric in D.19-04-020 – total number of inspections scheduled/total number of targeted inspections – is not included in the accompanying data file as it is not required to be included at this time per guidance from the Safety Enforcement Division Staff in the S-MAP Technical Working Group.

Is Metric Used for the Purposes of Determining Executive (Director Level or Higher) Compensation Levels and/or Incentives? (Ordering Paragraph 6A.)– [Yes/No]

- No

Is Metric Linked to the Determination of Individual or Group Performance Goals? (Ordering Paragraph 6A.)– [Yes/No]

- No

Is Metric Linked to Executive (Director Level or Higher) Positions? (Ordering Paragraph 6B.)– [Yes/No]

- No

Bias Controls: If any of the above are answered "yes," provide a description of bias controls in place for this specific metric.

- N/A

G. Metric No. 8: Shut In The Gas Average Time – Mains

Metric Name and Description per D.19-04-020: "Shut In The Gas Average Time – Mains: The average time (in minutes) required for the utility to stop the flow of gas during incidents involving mains when responding to any unplanned/uncontrolled release of gas. The timing for the response starts when the utility first receives the report and ends when an utility's qualified representative determines, per the utility's emergency standards, that the reported leak is not hazardous or the utility's representative completes actions to mitigate a hazardous leak and render it as being non-hazardous (*i.e.*, by shutting-off gas supply, eliminating subsurface leak migration, repair, etc.) per the utility's standards."

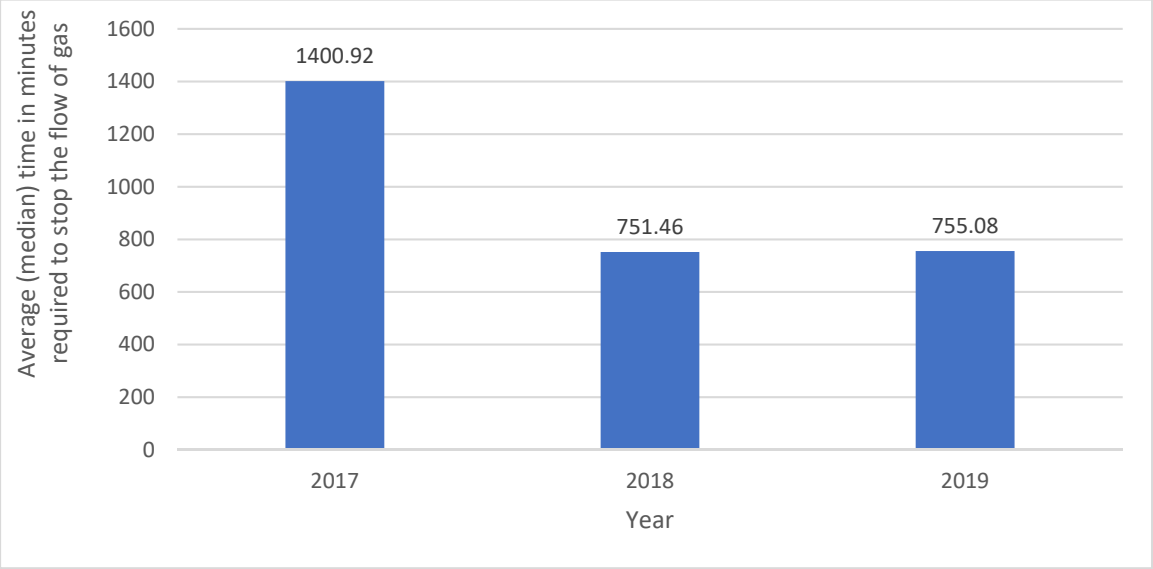
Risks: Distribution Pipeline Rupture with Ignition (non-Cross Bore)

Category: Gas

Units: Average (median) time in minutes required to stop the flow of gas

Summary:

Summary Chart of Shut In The Gas Average Time - Mains Metric Data (Annual)



Narrative Context:

SDG&E proactively surveys its gas distribution system for leakage at frequencies determined based on the pipe material involved, the operating pressure, whether the pipe is under cathodic protection, and the proximity of the pipe to various population densities as prescribed within CFR § 192.723. A routine leak survey consists of surveys at intervals of one, three, or five years of steel mains and plastic at intervals of five years. The frequency of this survey is determined by the pipe material involved. Annual surveys are scheduled in business districts, and near public service establishments, such as schools, churches, hospitals and pre-1986 plastic (Aldyl-A). Three-year survey cycles are used for all cathodically unprotected mains and services. Five-year survey cycles are typically used for plastic and cathodically protected steel mains and

services installed in residential areas. The results of leak surveys feed into risk models for pipeline replacement.

If a leak is found during a survey of the gas distribution system, SDG&E takes steps to either remediate or monitor the situation depending on the type of leak classification. A leak will be remediated immediately if there is a hazardous condition. If the leak does not create a hazardous situation, SDG&E will monitor the leak until it is remediated. SDG&E has shortened the prescribed timeframe for which leaks will be monitored and scheduled for remediation. The leak survey program has accelerated due to the increased footage for leak surveys, which requires more leak survey activities. SB 1371 requires the adoption of rules and procedures to minimize natural gas leakage from Commission-regulated natural gas pipeline facilities consistent with Public Utilities Code section 961(d) and 49 CFR § 192.703(c). SDG&E has been an active participant in the rulemaking and has provided comments as well as met the reporting requirements set forth under SB 1371. SDG&E's first Leak Abatement Compliance Plan and accompanying Advice Letter were approved in 2018 and the Plan is being implemented across by the Emissions Strategy Project Management Organization to implement 26 Mandatory Best Practices. This will result in collateral safety benefits.

The significant decrease in shut in time between 2017 and 2018 is attributable to the establishment of the Gas Emergency Response Crews who are on shift 24 hours a day to address emergencies.

Historical Data:

SDG&E began tracking this data in 2017 when CPUC General Order (GO) 112-F went into effect. However, this initial Safety Performance Metrics Report constitutes the first-time information has been broken out to distinguish between Mains and Services and is therefore

considered preliminary. SDG&E is currently evaluating its data collection processes to determine accuracy, completeness and validity of data. Monthly historical data for years 2017 through 2019 is included in the accompanying Excel file reflecting the average time (in minutes) required for the utility to stop the flow of gas during incidents involving mains when responding to any unplanned/uncontrolled release of gas. The time calculated for the response starts when SDG&E first receives notice of a potential gas leak and ends when a qualified representative determines, per SDG&E's emergency standards, that the reported leak is not hazardous or the SDG&E representative completes actions to mitigate a hazardous leak and render it non-hazardous (*i.e.*, by shutting-off gas supply, eliminating subsurface leak migration, repair, etc.) per SDG&E's standards. SDG&E will continue to track this metric for inclusion in future Safety Performance Metrics Reports until a full ten years of monthly historical data is provided.

Is Metric Used for the Purposes of Determining Executive (Director Level or Higher) Compensation Levels and/or Incentives? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. SDG&E's 2019 Executive Incentive Compensation and 2019 non-executive Incentive Compensation Plans include a gas safety metric for "P1 Gas Response Time (Minutes)." For ICP purposes, the P1 Gas Response Time performance measure is the average time it takes either Customer Service Field or Gas Operations to response to a Priority 1 gas emergency. Targets are based on a three-year average of response times adjusted for anomalies including area odor/mass odor calls.

  As stated in Section III, above, SDG&E's Executive and non-executive Incentive Compensation Plans are reviewed and updated on an annual basis. For purposes of this 2019 report submission, SDG&E references the incentive compensation plans in place as of 2019.

Is Metric Linked to the Determination of Individual or Group Performance Goals? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. As described above, SDG&E's 2019 Executive Incentive Compensation and 2019 non-executive Incentive Compensation Plans include a gas safety metric for "P1 Gas Response Time (Minutes)." This metric is weighted at 2% of the 59% safety weighting for SDG&E's 2019 Executive ICP and 1% of the 34% safety weighting for SDG&E's 2019 non-executive ICP.

Is Metric Linked to Executive (Director Level or Higher) Positions? (Ordering Paragraph 6B.)– [Yes/No]

- Yes. SDG&E's "P1 Gas Response Time (Minutes)" metric is linked to all SDG&E director level or higher positions covered by either the 2019 Executive ICP or 2019 non-executive ICP.

Bias Controls: If any of the above are answered "yes," provide a description of bias controls in place for this specific metric.

- Sempra Energy's Audit Services department audits SDG&E's annual Executive ICP and non-executive ICP results and calculations. Each safety-related performance metric is well defined in the approved annual ICP plan. The annual ICP plan further specifies how each metric is tracked. SDG&E's ICP performance results are reviewed by the Sempra Energy Audit Services department prior to SDG&E board approval.

H. Metric No. 9: Shut In The Gas Average Time - Services

Metric Name and Description per D.19-04-020: "Shut In The Gas Average Time – Services: The average time (minutes) that a Gas Service Representative (GSR) or qualified first responder (Gas Crew, Leak Surveyor, etc.) takes to respond and stop gas flow during incidents involving services. The timing for the response starts when the utility first receives the report and ends when the utility's qualified representative determines, per the utility's emergency standards, that the reported leak is not hazardous or the utility's representative completes actions to mitigate a hazardous leak and render it as being non-hazardous (*i.e.*, by shutting-off gas supply, eliminating subsurface leak migration, repair, etc.) per the utility's standards."

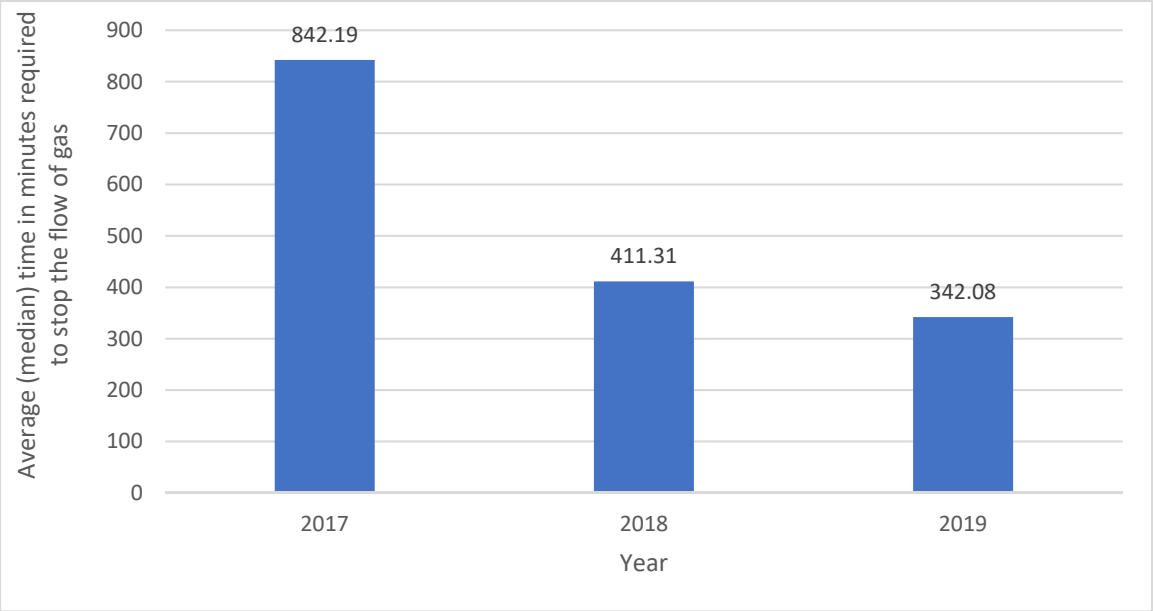
Risks: Distribution Pipeline Rupture with Ignition (non-Cross Bore)

Category: Gas

Units: Average (median) time in minutes required to stop the flow of gas

Summary:

Summary Chart of Shut In the Gas Average Time – Services Metric Data (Annual)



Narrative Context:

SDG&E proactively surveys its gas distribution system for leakage at frequencies determined based on the pipe material involved, the operating pressure, whether the pipe is under cathodic protection, and the proximity of the pipe to various population densities as prescribed within CFR § 192.723. A routine leak survey consists of surveys at intervals of one, three, or five years of steel mains and plastic at intervals of five years. The frequency of this survey is determined by the pipe material involved. Annual surveys are scheduled in business districts, and near public service establishments, such as schools, churches, hospitals and pre-1986 plastic (Aldyl-A). Three-year survey cycles are used for all cathodically unprotected mains and services. Five-year survey cycles are typically used for plastic and cathodically protected steel mains and services installed in residential areas. The results of leak surveys feed into risk models for pipeline replacement.

If a leak is found during a survey of the gas distribution system, SDG&E takes steps to either remediate or monitor the situation depending on the type of leak classification. A leak will be remediated immediately if there is a hazardous condition. If the leak does not create a hazardous situation, SDG&E will monitor the leak until it is remediated. SDG&E has shortened the prescribed timeframe for which leaks will be monitored and scheduled for remediation. The leak survey program has accelerated due to the increased footage for leak surveys, which requires more leak survey activities. SB 1371 requires the adoption of rules and procedures to minimize natural gas leakage from Commission-regulated natural gas pipeline facilities consistent with Public Utilities Code section 961(d) and 49 CFR § 192.703(c). SDG&E has been an active participant in the rulemaking and has provided comments as well as met the reporting requirements set forth under SB 1371. SDG&E's first Leak Abatement Compliance Plan and accompanying Advice Letter were approved in 2018 and the Plan is being implemented across by the Emissions Strategy Project Management Organization to implement 26 Mandatory Best Practices. This will result in collateral safety benefits.

The significant decrease in shut in time between 2017 and 2018 is attributable to the establishment of the Gas Emergency Response Crews who are on shift 24 hours a day to address emergencies.

Historical Data:

SDG&E began tracking this metric in 2017. This data is also reported externally per CPUC General Order 112-F. However, this initial Safety Performance Metrics Report constitutes is the first-time information has been broken out to distinguish between Mains and Services and is therefore considered preliminary. SDG&E is currently evaluating its data collection processes to determine accuracy, completeness and validity of data. The

accompanying Excel file provides monthly historical data for 2017 through 2019 for the average time (minutes) that a Gas Service Representative (GSR) or qualified first responder (*e.g.*, Gas Crew, Leak Surveyor, etc.) takes to respond and stop gas flow during incidents involving services. The time calculated for the response starts when SDG&E first receives notice of a potential gas leak and ends when a qualified representative determines, per SDG&E's emergency standards, that the reported leak is not hazardous or SDG&E's representative completes actions to mitigate a hazardous leak and render it non-hazardous (*i.e.*, by shutting-off gas supply, eliminating subsurface leak migration, repair, etc.) per SDG&E's standards. SDG&E will continue to track this metric for inclusion in future annual reports until a full ten years of historical data is provided.

Is Metric Used for the Purposes of Determining Executive (Director Level or Higher) Compensation Levels and/or Incentives? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. SDG&E's 2019 Executive Incentive Compensation and 2019 non-executive Incentive Compensation Plans include a gas safety metric for "P1 Gas Response Time (Minutes)." For ICP purposes, the P1 Gas Response Time performance measure is the average time it takes either Customer Service Field or Gas Operations to response to a Priority 1 gas emergency. Targets are based on a three-year average of response times adjusted for anomalies including area odor/mass odor calls.

  As stated in Section III, above, SDG&E's Executive and non-executive Incentive Compensation Plans are reviewed and updated on an annual basis. For purposes of this 2019 report submission, SDG&E references the incentive compensation plans in place as of 2019.

Is Metric Linked to the Determination of Individual or Group Performance Goals? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. As described above, SDG&E's 2019 Executive Incentive Compensation and non-executive Incentive Compensation Plans include a gas safety metric for "P1 Gas Response Time (Minutes)." This metric is weighted at 2% of the 59% safety weighting for SDG&E's 2019 Executive ICP and 1% of the 34% safety weighting for SDG&E's 2019 non-executive ICP.

Is Metric Linked to Executive (Director Level or Higher) Positions? (Ordering Paragraph 6B.)– [Yes/No]

- Yes. SDG&E's "P1 Gas Response Time (Minutes)" metric is linked to all SDG&E director level or higher positions covered by either the 2019 Executive ICP or 2019 non-executive ICP.

Bias Controls: If any of the above are answered "yes," provide a description of bias controls in place for this specific metric.

- Sempra Energy's Audit Services department audits SDG&E's annual Executive ICP and non-executive ICP results and calculations. Each safety-related performance metric is well defined in the approved annual ICP plan. The annual ICP plan further specifies how each metric is tracked. SDG&E's ICP performance results are reviewed by the Sempra Energy Audit Services department prior to SDG&E board approval.

I. Metric No. 10: Cross Bore Intrusions

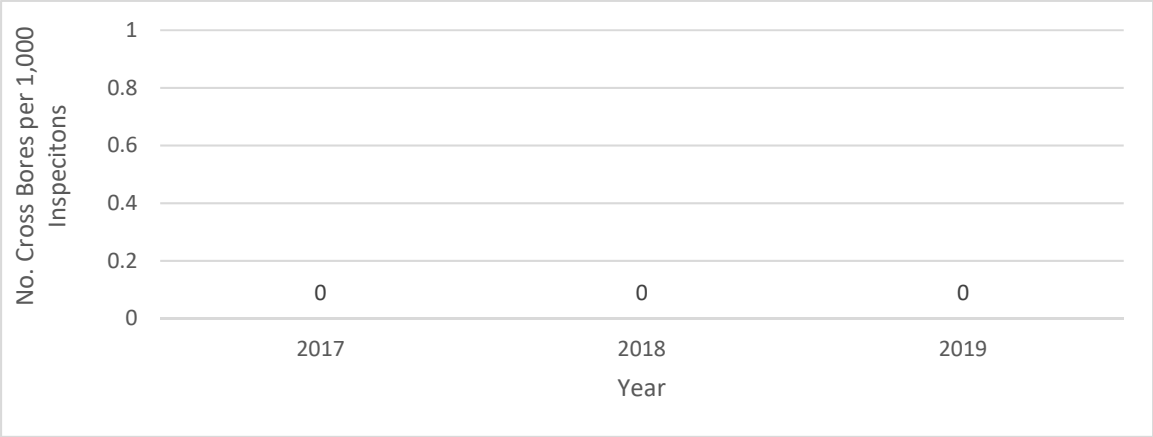
Metric Name and Description per D.19-04-020: "Cross Bore Intrusions: Cross bore intrusions found per 1,000 inspections."

Risks: Catastrophic Damage Involving Medium Pressure Pipeline Failure

Category: Gas

Units: Number of cross bore intrusions per 1,000 inspections

Summary Chart of Cross Bore Intrusions Metric Data (Annual)



Narrative Context:

SDG&E's Sewer Lateral Inspection Project (SLIP) was an initiative conducted as part of SDG&E's Distribution Integrity Management Program (DIMP). SLIP addressed the concerns

PHMSA expressed under the DIMP regulations that require operators to address identified threats of low frequency, but potentially high consequence events concerning pipeline damage within sewer laterals. Threats to pipeline integrity can occur if the trenchless installation inadvertently crosses a sewer line (or "lateral") and penetrates, or bores, through the sewer line, creating what is referred to as a "cross bore."

SDG&E completed all sewer lateral inspections by 2012; only one cross bore intrusion was found and repaired. Going forward, sewer laterals will be inspected at the time they are identified. Should a cross bore intrusion be found, it will be remediated, which mitigates the potential of an incident.

Historical Data:

As stated above, SDG&E sewer lateral inspections were completed in 2012. A single cross bore intrusion was found and repaired at that time. SDG&E includes monthly data for 2012 in the accompanying Excel file.

Is Metric Used for the Purposes of Determining Executive (Director Level or Higher) Compensation Levels and/or Incentives? (Ordering Paragraph 6A.)– [Yes/No]

- No

Is Metric Linked to the Determination of Individual or Group Performance Goals? (Ordering Paragraph 6A.)– [Yes/No]

- No

Is Metric Linked to Executive (Director Level or Higher) Positions? (Ordering Paragraph 6B.)– [Yes/No]

- No

Bias Controls: If any of the above are answered "yes," provide a description of bias controls in place for this specific metric.

- N/A

J. Metric No. 11: Gas Emergency Response

Metric Name and Description per D.19-04-020: "Gas Emergency Response: The average time that a Gas Service Representative or a qualified first responder takes to respond after receiving a call which results in an emergency order."

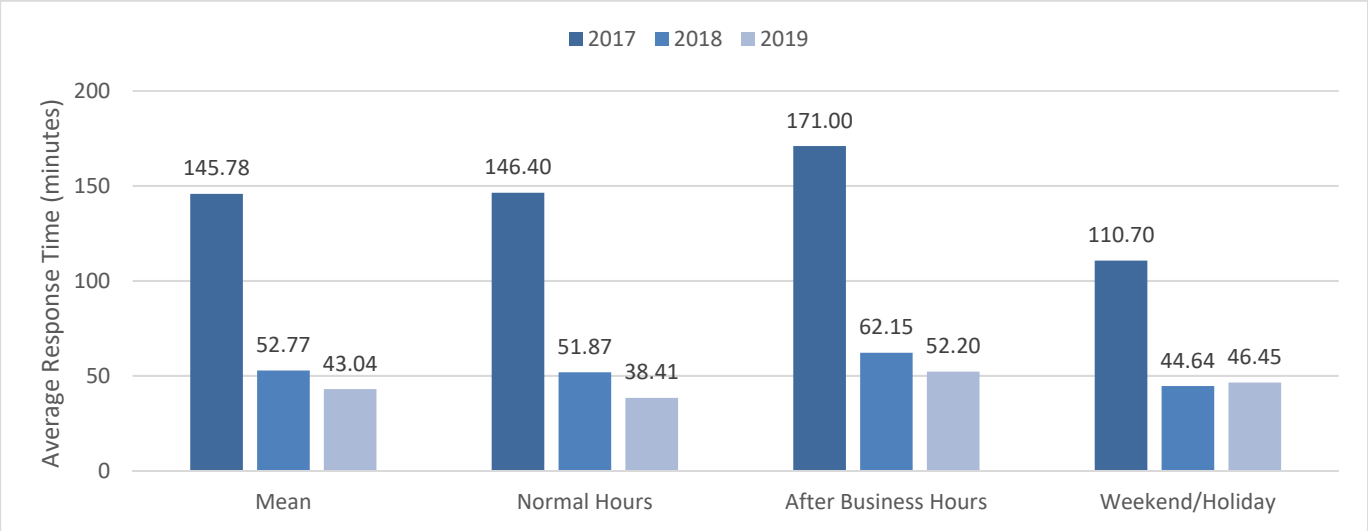
Risks: Distribution Pipeline Rupture with Ignition

Category: Gas

Units: Average response time in minutes, additionally: response times in five-minute intervals, segregated first by business hours (0800 – 1700 hours), after business hours and weekends/legal state holidays. The intervals start with 0-5 minutes, all the way to 40-45 minutes, an interval of 45-60 minutes and then all response times greater than 60 minutes.

Summary:

Summary Chart of Gas Emergency Response Metric Data (Annual)



Narrative Context:

SDG&E responds to emergency calls 24 hours per day, 365 days per year from a myriad of residential, commercial, industrial and agriculture customers. SDG&E's Customer Service Field (CSF) technicians will respond to all calls of gas leaks or gas odors and perform a gas leak investigation. SDG&E has a pipeline safety campaign, which is mandated by federal pipeline safety regulation 49 CFR, Part 192. SDG&E's campaign includes bill inserts, mailings to

residential and business customers, mailings to excavators, businesses, land developers and farmers, and communications to schools and universities, public officials and emergency officials. Pipeline safety efforts provide customers with information about natural gas pipeline locations; what to do if you sense a leak/smell gas; and messaging to direct the public to call 811 (*i.e.*, DigAlert) and other actions to take related to natural gas safety.

SDG&E's Emergency Management organization provides planning and guidance for responding in anticipation of, response to, or following an incident. Emergency Management effectively and efficiently supports the Company's ability to prevent, prepare for, respond to, and recover from incidents regardless of cause, size, or complexity. The overall purpose of emergency preparedness, including planning, is to safeguard the public, employees, contractors, stakeholders, reputation, and the continuation of essential business functions.

SDG&E's Customer Service's primary goal is providing safe, reliable and efficient gas and electric service to customers, while complying with applicable federal, state and local regulations. To reduce the risk of a customer or public incident, SDG&E Field employees are trained to rectify safety hazards on customer premises. SDG&E attributes improvement in response times in part to the addition of dedicated emergency response personnel. SDG&E is currently evaluating initiatives to improve gas emergency crew locational capabilities (*e.g.*, GPS tracking). Additionally, SDG&E is evaluating initiatives to improve the accuracy of data collection and resolve technology issues.

Historical Data:

The monthly historical data contained in the accompanying Excel file is for October 2017 through December 2019 and provides the average time that a Company Customer Service Field or Gas Operations representative takes to respond after receiving a call that results in an

emergency order. SDG&E began tracking this data in October 2017, when the CPUC's GO 112-F reporting requirements became effective. For purposes of GO 112-F reporting, SDG&E currently reports gas emergency response times and "made safe" times in five- to ten-minute increments. The metric data provided herein differs from that included in the GO 112-F report. GO 112-F reporting is based on completion code; the data for this Safety Performance Metrics Report includes data for all Priority 1 (P1) gas emergency response times. In other words, GO 112-F filters P1 codes by specific completion code, whereas all P1s are included in the metric data included here. SDG&E will continue to track this metric, as defined by the S-MAP Phase Two Decision, on a monthly basis for inclusion in future Safety Performance Metrics Reports until a full ten years of historical data exists.

Is Metric Used for the Purposes of Determining Executive (Director Level or Higher) Compensation Levels and/or Incentives? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. 2019 SDG&E's 2019 Executive Incentive Compensation Plan and 2019 non-executive Incentive Compensation Plan each include a metric for "P1 Gas Response Time." This metric is defined as follows: "the Priority 1 gas emergency response time is the average time it takes either Customer Service Field or Gas Operations to respond to a Priority 1 gas emergency. Targets are based on a three-year average of response times adjusted for anomalies including area odors."

  As stated in Section III, above, SDG&E's Executive and non-executive Incentive Compensation Plans are reviewed and updated on an annual basis. For purposes of this 2019 report submission, SDG&E references the incentive compensation plans in place as of 2019.

Is Metric Linked to the Determination of Individual or Group Performance Goals? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. As described above, performance related to SDG&E's P1 Gas Response Time is included as a goal in SDG&E's 2019 Executive and non-executive ICPs. This specific performance measure is weighted at 2% of the overall 59% public and employee safety operations measures of the 2019 Executive ICP and applies to all SDG&E executives covered by the plan and is weighted at 1% of the overall 34% public and employee safety operations measures of the 2019 non-executive ICP and applies to all SDG&E employees covered by the plan.

Is Metric Linked to Executive (Director Level or Higher) Positions? (Ordering Paragraph 6B.)– [Yes/No]

- Yes. SDG&E's P1 Gas Response Time performance measure is linked to all SDG&E director or above positions covered by either the 2019 Executive ICP or 2019 non-executive ICP.

Bias Controls: If any of the above are answered "yes," provide a description of bias controls in place for this specific metric.

- Sempra Energy's Audit Services department audits SDG&E's annual Executive ICP and non-executive ICP results and calculations. Each safety-related performance metric is well defined in the approved annual ICP plan. The annual ICP plan further specifies how each metric is tracked. SDG&E's ICP performance results are reviewed by the Sempra Energy Audit Services department prior to SDG&E board approval.

K. Metric No. 13: Percentage of the Gas System that can be Internally Inspected

Metric Name and Description per D.19-04-020: "Percentage of the Gas System that can be Internally Inspected: The ratio of transmission pipe miles that can be inspected internally to all transmission pipe miles."[61]

Risks: Catastrophic Damage Involving High-Pressure Pipeline Failure

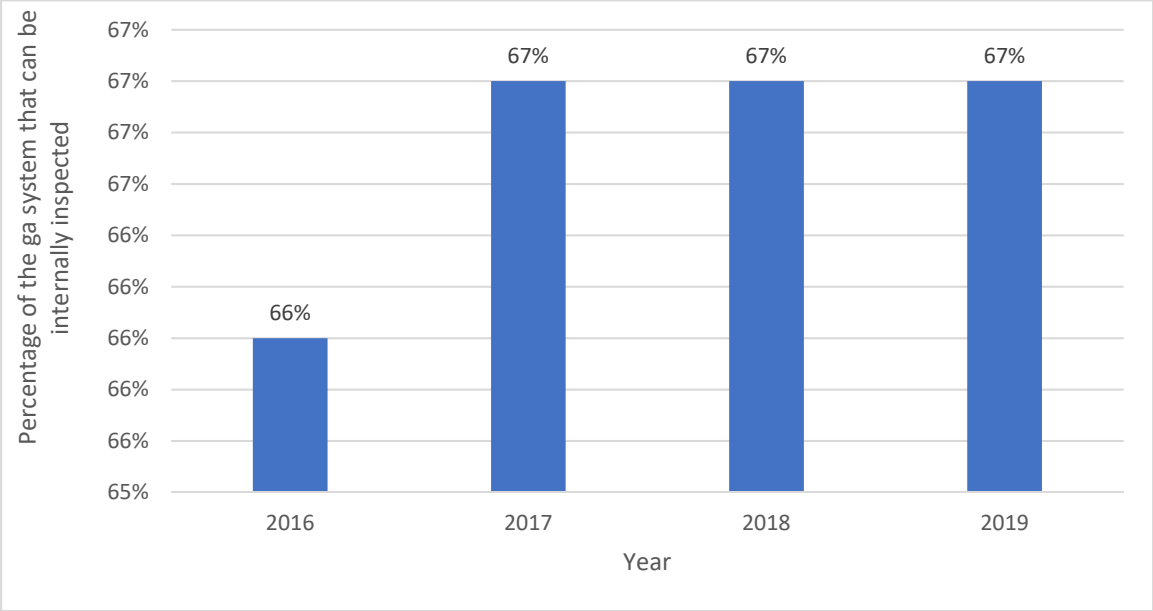
Category: Gas

Units: Percentage

[61] This metric represents the percentage of the gas system that can be internally inspected, otherwise known as in-line inspection or "piggable." All of SDG&E's transmission pipeline is inspected in accordance with 49 CFR Part 192 Subpart O, which identifies in-line inspection, pressure test, and direct assessment.

Summary:

Summary Chart of Percentage of the Gas System that can be Internally Inspected Metric Data (Annual)



Narrative Context:

The SDG&E transmission and distribution system spans from the California-Mexico border to the Pacific Ocean and to the SoCalGas territory border.[62] SDG&E's Transmission Integrity Management Program (TIMP) is federally mandated to identify threats to transmission pipelines in High Consequence Areas (HCAs), determine the risk posed by these threats, schedule prescribed assessments to evaluate these threats, collect information about the condition of the pipelines, and take actions to minimize applicable threat and integrity concerns to reduce the risk of pipeline failure. At minimum of every seven years, transmission pipelines located within HCAs are assessed using In-Line Inspection (ILI), Direct Assessment or Pressure Test, and are remediated as needed.

[62] SDG&E and SoCalGas own and operate an integrated natural gas system.

Detected anomalies are classified and addressed based on severity with the most severe requiring immediate actions. Remediations reduce risk by addressing areas where corrosion, weld or joint failure, or other forces are occurring or have occurred. Post-assessment pipeline repairs, when appropriate, and replacements are intended to increase public and employee safety by reducing or eliminating conditions that might lead to an incident. ILI is the primary assessment method used to identify potential pipeline integrity threats. When a threat is identified, SDG&E takes immediate action to reduce risk until a repair is completed. These actions involve removing a pipeline from service or reducing operating pressure. In cases where the assessment involves a pressure test, immediate remediation is also required as the pressure test cannot be completed until the pipeline is repaired.

TIMP reduces the risk of failure to the pipeline transmission system and on a continual basis evaluates the effectiveness of the program and scheduled assessments. TIMP Risk Assessment evaluates the Likelihood of Failure (LOF) using the nine threat categories (External Corrosion, Internal Corrosion, Stress Corrosion Cracking, Manufacturing, Construction, Equipment, Third Party Damage, Incorrect Operations, and Weather Related and Outside Force) for transmission pipelines located within a HCA. Pipeline operational parameters and the area near the pipeline are considered to evaluate Consequence of Failure (COF). The LOF multiplied by the COF produces the pipelines Relative Risk Score. Further information is collected about the physical condition of transmission pipelines through integrity assessments. Action is taken to address applicable threats and integrity concerns to increase safety and preclude pipeline failures.

The numbers and types of TIMP activities vary from year to year and are based on the timing of previous assessments done on the same locations. Approximately 132 miles out of 232 miles of SDG&E's transmission pipelines are located in HCA areas. The High Pressure and

Integrity Analysis Department actively reviews pipelines assessed using External Corrosion Direct Assessment (ECDA) methodology following completion of the assessment to identify candidate pipelines for future ILI.

Historical Data:

This metric represents the percentage of the gas system that can be internally inspected, otherwise known as in-line inspection or "piggable." All of SDG&E's transmission pipeline is inspected in accordance with 49 CFR Part 192 Subpart O, which identifies in-line inspection, pressure test, and direct assessment. As described above for Metric No. 6, Gas In-Line Inspection, the numbers of assessment and mitigation activities vary from year to year based on the timing and intervals of prior assessments. Transmission pipelines are required to be assessed at an interval not to exceed seven years.

Annual data is included in the accompanying Excel file for 2012 through 2019 for the percentage of SDG&E's system that can be internally inspected. This metric represents a ratio of two metrics that are tracked and separately reported to PHMSA: 1) transmission pipe miles that can be inspected internally, and 2) the number of transmission pipe miles. The miles of transmission pipeline that can be internally inspected and the total miles of transmission pipeline are annual metrics that are currently reported in Part R of the PHMSA Gas Transmission and Gathering Annual Report F 7100.2-1. While SDG&E has been collecting data for these two PHMSA-reportable metrics since 2012, the ratio of these two metrics has not previously been reported in an external regulatory report. These two annual metrics are utilized to calculate the percentage for this metric.

Is Metric Used for the Purposes of Determining Executive (Director Level or Higher) Compensation Levels and/or Incentives? (Ordering Paragraph 6A.)– [Yes/No]

- No

Is Metric Linked to the Determination of Individual or Group Performance Goals? (Ordering Paragraph 6A.)– [Yes/No]

- No

Is Metric Linked to Executive (Director Level or Higher) Positions? (Ordering Paragraph 6B.)– [Yes/No]

- No

Bias Controls: If any of the above are answered "yes," provide a description of bias controls in place for this specific metric.

- N/A

L. Metric No. 14: Employee Serious Injuries and Fatalities

Metric Name and Description per D.19-04-020: "Employee Serious Injuries and Fatalities: A work-related injury or illness that results in a fatality, inpatient hospitalization for more than 24 hours (other than for observation purposes), a loss of any member of the body, or any serious degree of permanent disfigurement."

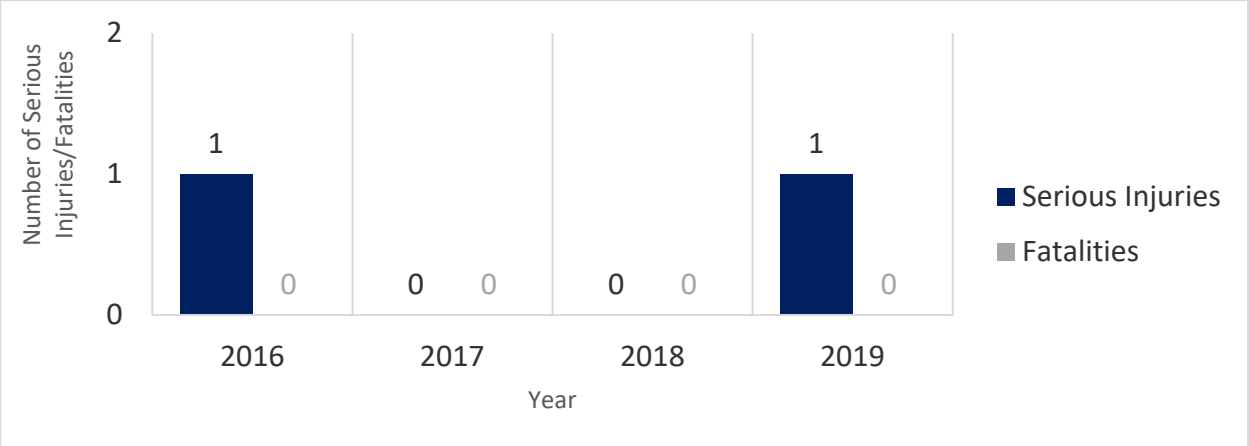
Risks: Employee Safety

Category: Injuries

Units: Number of Serious Injuries and Fatalities

Summary:

Summary Chart of Employee Serious Injuries and Fatalities Metric Data (Annual)



Narrative Context:

Employee safety is a core value at SDG&E. SDG&E's safety-first culture focuses on its employees, customers, and the public, and is embedded in every aspect of the Company's work. Employees should be able to go home to their families and loved ones after work each day and be able to return to work safely the next day. Safety is not compromised for production, customer satisfaction, or other goals and no activity is so important that it should jeopardize employee, customer or public safety. SDG&E's Employee Safety risk mitigation programs are founded on proven employee-based programs, safety training, workforce education, site inspections, and SDG&E's Injury and Illness Prevention Program (IIPP).

SDG&E has in place a range of safety programs and initiatives designed to identify, address, communicate, and mitigate and/or eliminate workplace hazards, and to contribute proactively to overall workplace safety and employee awareness of safety issues and concerns. These programs include:

- Injury and Illness Prevention Program (IIPP): Every California employer must have an effective written IIPP plan for preventing injury and illness. The IIPP pertains to a range of required elements and associated procedures, such as: management commitment/assignment of responsibilities; safety communications system with employees; assuring employee compliance with safe work practices; scheduled inspections and evaluation system; accident investigation; procedures for correcting unsafe or unhealthy conditions; safety and health training and instruction; and recordkeeping and documentation.
- Safety Training: Training is a crucial element of a successful and sustainable safety and health. program. SDG&E is committed to verifying that its employees perform their job

duties safely and in compliance with all applicable safety laws, rules, regulations, permit requirements, and company standards. SDG&E's extensive range of safety training courses provides employees the means to perform their job tasks safely.

- Inspections: Safety inspections are a principal means of identifying potential hazards and help to determine what safeguarding is necessary to prevent incidents, injuries and occupational illnesses. The inspection program addresses procedures for conducting safety inspections and self-assessments, describes the process of documenting corrective actions and their implementation, and defines roles and responsibilities.
- Industrial Hygiene Programs: SDG&E has robust Industrial Hygiene programs in compliance with Cal/OSHA regulations. Industrial Hygienists are responsible for monitoring changes in employee safety and health regulations, developing internal safety policies and procedures to confirm compliance with the applicable regulations, and managing Company-wide implementation of key industrial hygiene programs, on such topics as Hazard Communications, Hearing Conservation, Respiratory Protection, Mold, Asbestos and Lead Exposure Management, Arc Flash and Confined Space.
- Environmental and Safety Compliance Management Program (ESCMP): ESCMP is a management system that monitors the effectiveness of environmental, health and safety activities, similar to the internationally accepted standard, ISO 14001.[63] It establishes procedures and defines roles and responsibilities necessary to confirm conformance to the Injury and Illness Prevention Program and other requirements applicable to safety aspects of SDG&E operations.

[63] International Organization for Standardization (ISO) 14000 family - "Environmental management."

- OSHA and Cal/OSHA Voluntary Protection Programs (VPP): The Federal and California VPP are labor-management-government cooperative programs designed to recognize workplaces that manage outstanding health and safety systems for protection of workers and exceed minimal compliance with the Federal and Cal/OSHA Title 8 California Code of Regulations. OSHA's VPP recognize employers who have implemented effective safety and health management systems and maintain injury and illness rates below national Bureau of Labor Statistics averages for their respective industries. In VPP, management, labor, and OSHA work cooperatively and proactively to prevent fatalities, injuries and illnesses through a system focused on hazard prevention and control; worksite analysis; training; and management commitment and worker involvement. To participate, employers must submit an application to OSHA (or Cal/OSHA) and undergo a rigorous onsite evaluation by a team of safety and health professionals. VPP participants are re-evaluated every three to five years to remain in the programs.
- Personal Protective Equipment (PPE): SDG&E's PPE program establishes a comprehensive approach toward controlling potential employee injuries and eliminating or mitigating exposure to specified hazards when and where needed. PPE includes uniforms and equipment designed to protect employees while performing their job (*e.g.*, fire retardant uniforms, gloves, protective eyewear). All employees who are required to use PPE are trained on when PPE is necessary, what PPE is necessary, how to properly don/remove/adjust/wear PPE, limitations of PPE and the proper care, maintenance, life and disposal of PPE.

- Drug and Alcohol Testing Program: SDG&E has an employee drug and alcohol testing program managed in accordance with state and federal regulations. SDG&E's substance abuse prevention policy, which all employees are responsible for knowing and complying with, prohibits the use and/or possession of alcohol during working hours and/or reporting to work with alcohol or prohibited drugs in their system. Violations of this policy are cause for disciplinary action up to and including employment termination. In addition to the substance abuse prevention policy, SDG&E deploys Substance Abuse Prevention Training as a proactive measure.
- Behavior Based Safety (BBS) Program: BBS is a proactive approach to safety and health management, focusing on principles that recognize at-risk behaviors, which can be a frequent cause of both minor and serious injuries. BBS is intended to reduce the occurrence of at-risk behaviors by modifying an individual's actions and/or behaviors through observation, feedback, and positive interventions aimed at developing safe work habits. SDG&E has five BBS processes in the gas, electric and customer service field organizations.
- Facilities Maintenance Program: Facilities Capital projects are designed to make workspaces safer. Facilities maintenance programs are preventative, provide predictive and corrective maintenance and are used to address deficiencies. Examples include structural changes, and asbestos inspection and abatement.
- Traffic Control for employee, contractor and public safety at worksites: SDG&E, when performing work on, or adjacent to, a roadway, is responsible for installing and maintaining such devices, which are necessary to provide safe passage for the traveling

public through the work area and for the safety of the workers on the site. SDG&E uses both internal and external resources to fulfill this responsibility.

- Work Methods and Standards: Business functions related to developing and maintaining construction standards, standard practices, and system design for electric service, primary and secondary systems.
- Stop Work Authority (*i.e.*, Stop the Job/Stop the Task): SDG&E employees, regardless of rank or title, are given the authority to "stop a job" at any time if they identify a safety hazard and are encouraged to raise a red flag whenever they feel it is needed.
- Close Call/Near-Miss Program: SDG&E recognizes the importance of learning from close calls and near-misses to reduce the potential for a serious incident or injury in the future. The National Safety Council describes a close call or near-miss as an unplanned event that did not result in injury, illness, or damage, but had the potential to do so. SDG&E encourages employees to report close calls in safety meetings and through an online process. SDG&E's online process allows employees to report anonymously through an electronic form. The information is submitted to Safety Services for review and may be shared with other employees, so they understand and benefit from the lessons learned.
- Job Observations: SDG&E field-based organizations perform documented observations of front-line operational employees. Observations provide the opportunity to identify if workers can perform the task safely, to determine why a precaution was or was not taken, and to provide feedback on the positive things a person is doing for his/her own safety.
- Incident Investigation: As part of improving its safety culture, SDG&E has established a team to create a more comprehensive and robust incident investigation standard and

reporting process. Applying this process uniformly across the Company will result in more consistent investigations and will allow lessons learned to be shared broadly. In addition, regular training is provided for those conducting incident investigations to confirm consistency and more thorough investigations.

- Safe Driving Program: SDG&E utilizes the Smith System® Defensive Driving System as part of safe driving training for employees. The Smith System® concepts help drivers see, think and act their way through various driving environments, challenges and changes that may exist regardless of where a driver travels or the type of vehicles he or she operates.
- Executive Safety Council (ESC) Team Meeting Dialogs: The ESC is the governing body for all safety committees. Led by SDG&E's Chief Operations Officer and Director of Safety, the ESC advances the Company safety culture and addresses enterprise-wide safety strategy. The meeting dialogs are held at Company locations and integrate employee and supervisor dialog sessions so that employees have an opportunity to share safety experiences with Company leadership.
- Field and Office Safety Committees: These site-specific committees are actively engaged in safety awareness through education, promoting a healthy lifestyle, encouraging work-life balance, and always maintaining a safe work environment. To keep the committees connected, quarterly meetings are held with committee chairpersons and co-chairpersons. During these meetings safety updates are shared, training is provided, and action planning steps identified. Like all other safety committees, site committees report to the ESC as the governing body.

- Electric Safety Subcommittee (ESS): The ESS brings management and electric front-line personnel together to discuss safety concerns from the perspective of those closest to the risks. The objectives are to make a lasting difference in reducing unnecessary risk, resolve division-wide safety issues/concerns, and facilitate two-way communication between frontline employees and their respective management.
- Gas Safety Subcommittee (GSS): Since 2015, the GSS has engaged employee representatives from each district and management on a monthly basis to discuss concerns and address potential gas operations safety hazards. The objective is to reduce unnecessary risk, resolve gas safety issues/concerns, and facilitate two-way communication between frontline employees and their respective management.
- Safety Tailgates: Safety tailgate talks are short informational meetings held with employees to discuss work-site-related safety. The purpose of a tailgate is to inform employees of specific hazards associated with a task and the safe way to do a job. Tailgate talks also serve as a reminder to employees of what they already know while establishing the supervisor's credibility and conscientiousness about his oversight role.
- Safety Meetings: The main objectives of a safety meeting are to remind employees of safe practices they have already learned and to introduce and build awareness of new techniques, new equipment, or new regulations that must be observed.
- Safety Stand-downs: These are voluntary events for employers to talk directly to employees about safety. They provide an opportunity to discuss hazards, protective methods, and the Company's safety policies, goals and expectations.
- Safety Congress and Leadership Awards: Since 2002, this event has been held annually. It provides a forum for safety committee members, safety leaders and others to share and

exchange information and ideas through networking and workshops. At this event, individuals and teams are recognized for living by the Company's safety vision, turning that vision into action, embracing the SDG&E safety culture, and demonstrating safety leadership.

No serious injuries or fatalities to SDG&E employees occurred during 2017 or 2018. In 2019, SDG&E recorded one employee serious injury, resulting from a slip and fall. SDG&E continually evaluates initiatives to further reduce the risk of employee serious injury. For instance, as described above in Section II.B., SDG&E has undertaken an initiative to implement an enhanced Safety in Action (SIA) Program. Designed for executives and field operations directors, the enhanced SIA initiative will provide SDG&E with the necessary tools to measure Serious Injury and Fatality (SIF) exposures, understand the Company's specific SIF exposure precursors, and design effective steps to eliminate or mitigate SIF exposure. Through this leading indicator program, a SIF exposure reduction safety process will be developed to define a SIF definition for SDG&E, develop a SIF decision tree, determine SIF metrics (leading and lagging), and use a precursor analysis tool to reduce SIF exposure. Goals and objectives for the SIA program will consist of clear, concise wording that demonstrates a forward-moving effort to improve safety. These goals and objectives will be defined and measured.

Historical Data:

Ten years of historical monthly data is provided in the accompanying Excel file for SDG&E's Employee Serious Injury and Fatality data. This data captures any work-related injury or illness that results in a fatality, inpatient hospitalization for more than 24 hours (other than for observation purposes), a loss of any member of the body, or any serious degree of permanent disfigurement, as provided in the metric definition. This data is currently reported to

OSHA. SDG&E notes that a new definition of "Serious Injury" went into effect in California on January 1, 2020 that could impact the number of reportable incidents in 2020 and beyond.[64] For this 2019 report, SDG&E applied the OSHA definition of serious injury that was in effect during 2019 (*i.e.*, inpatient hospitalization for more than 24 hours) as provided in the metric description.

Is Metric Used for the Purposes of Determining Executive (Director Level or Higher) Compensation Levels and/or Incentives? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. SDG&E's 2019 Executive and non-executive Incentive Compensation Plans include the following employee safety-related metrics:
    - Zero Employee Electric Contacts – No employee makes a direct electrical contact with any part of their body that results in a disfigurement, dismemberment, or extended hospitalization requiring substantial medical treatment.
    - Lost Time Incident (LTI) Rate – the LTI Rate is expressed as the number of OSHA Recordable Injuries or Illnesses resulting in Days Away from Work, per 100 full-time employees. This measure is calculated using the number of Lost-time Incidents x 200,000 divided by the Total Hours Worked.
    - Controllable Motor Vehicle Incidents (CMVI) – Minimum performance, 55; maximum performance, 40 or fewer. Motor vehicle incident records in the electronic Safety Information Management System will document controllability.
    - ESCMP Findings Mediated - [Environmental Safety Compliance Management Program] Corrective Action – Percent of Corrective Actions documented in the Safety Information Management System and scheduled for completion in calendar year 2019 that are completed by December 31, 2019.
    - Field Observations – The Company is developing a leading indicator safety metric which counts the number of documented observations to front-line operational employees. An observation is defined as a visit to an employee or crew work site in which work is observed and documented, with at minimum the date of observation and notes on the observation. Note: [Behavior Based Safety]

[64] Effective January 1, 2020, Cal/OSHA revised its injury reporting obligations to be more aligned with the injury reporting obligations under federal OSHA. The 24-hour minimum time requirement for hospitalizations was removed. Accordingly, any hospitalization will be reportable, excluding those for medical observation or diagnostic testing. The full text of the new "serious injury or illness" definition, as of Jan. 1, 2020, is: "Any injury or illness occurring in a place of employment or in connection with any employment that requires inpatient hospitalization, for other than medical observation or diagnostic testing, or in which an employee suffers an amputation, the loss of an eye, or any serious degree of permanent disfigurement, but does not include any injury or illness or death caused by an accident on a public street or highway, unless the accident occurred in a construction zone."

BBS processes includes observations from front-line employees who may also work in an office environment.

As stated in Section III, above, SDG&E's Executive and Non-executive Incentive Compensation Plans are reviewed and updated on an annual basis. For purposes of this 2019 report submission, SDG&E references the incentive compensation plans in place as of 2019.

Is Metric Linked to the Determination of Individual or Group Performance Goals? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. As described above, performance related to (1) Zero Employee Electric Contacts, (2) LTI Rate, (3) CMVI, (4) ESCMP Findings Mediated, and (5) Field Observations are included in SDG&E's 2019 Executive and non-executive ICPs. These specific performance measures are each weighted 3% - 4% of the overall 59% public and employee safety operations measures in the 2019 Executive ICP and applies to all SDG&E executives covered by the plan and are weighted at 1% - 4% of the overall 34% of public and employee safety operations measures of the 2019 non-executive ICP and applies to all SDG&E employees covered by the plan.

Is Metric Linked to Executive (Director Level or Higher) Positions? (Ordering Paragraph 6B.)– [Yes/No]

- Yes. SDG&E's (1) Zero Employee Electric Contacts, (2) LTI Rate, (3) CMVI, (4) ESCMP Findings Mediated, and (5) Field Observations performance measures are linked to all SDG&E director or above positions covered by either the 2019 Executive ICP or 2019 non-executive ICP.

Bias Controls: If any of the above are answered "yes," provide a description of bias controls in place for this specific metric.

- Sempra Energy's Audit Services department audits SDG&E's annual Executive ICP and non-executive ICP results and calculations. Each safety-related performance metric is well defined in the approved annual ICP plan. The annual ICP plan further specifies how each metric is tracked. SDG&E's ICP performance results are reviewed by the Sempra Energy Audit Services department prior to SDG&E board approval.

M. Metric No. 15: Employee Days Away, Restricted and Transfer (DART) Rate

Metric Name and Description per D.19-04-020: "Employee Days Away, Restricted and Transfer (DART) Rate: DART Rate is calculated based on the number of OSHA-recordable injuries resulting in Days Away from work and/or Days on Restricted Duty or Job Transfer, and hours worked."

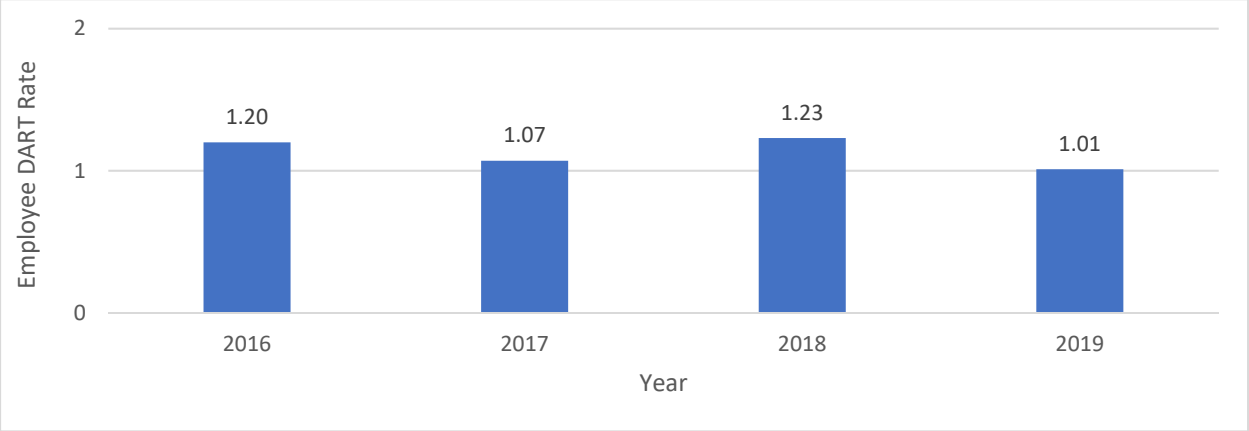
Risks: Employee Safety

Category: Injuries

Units : Number of DART Cases times 200,000 divided by total employee hours worked

Summary:

Summary Chart of Employee DART Rate Metric Data (Year-end)



Narrative Context:

In 2019, SDG&E achieved its lowest year-end DART (Days Away/Restricted/Transfer) case rate on record. The DART case rate is a lagging metric of injury severity, reflecting how many employees are kept away from their normal duties due to an injury or illness. SDG&E's DART rate has fallen by nearly 60% in the last ten years. SDG&E attributes this downward trend to its strong injury case management and continual evaluation of initiatives to eliminate or mitigate exposure to workplace hazards. Please refer to the initiatives listed above in SDG&E's Employee Serious Injuries and Fatalities metric.

Historical Data:

Ten years of historical monthly data is provided in the accompanying Excel file for SDG&E's Employee DART Rate. A DART Rate is calculated based on the number of OSHA-recordable injuries resulting in Days Away from work and/or Days on Restricted Duty or Job Transfer, and hours worked.

Is Metric Used for the Purposes of Determining Executive (Director Level or Higher) Compensation Levels and/or Incentives? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. SDG&E's 2019 Executive Incentive Compensation Plan and 2019 non-executive Incentive Compensation Plan include the following metric:
    - Lost Time Incident (LTI) Rate – the LTI Rate is expressed as the number of OSHA Recordable Injuries or Illnesses resulting in Days Away from Work, per 100 full-time employees. This measure is calculated using the number of Lost-time Incidents x 200,000 divided by the Total Hours Worked.

  As stated in Section III, above, SDG&E's Executive and non-executive Incentive Compensation Plans are reviewed and updated on an annual basis. For purposes of this 2019 report submission, SDG&E references the incentive compensation plans in place as of 2019.

Is Metric Linked to the Determination of Individual or Group Performance Goals? (Ordering Paragraph 6A.)– [Yes/No]

- Yes. As described above, performance related to SDG&E's LTI Rate is included in SDG&E's 2019 Executive and non-executive ICPs. This specific performance measure is weighted at 4% of the overall 59% public and employee safety operations measures in the 2019 Executive ICP and applies to all SDG&E executives covered by the plan and is weighted at 4% of the overall 34% public and employee safety operations measures in the 2019 non-executive ICP and applies to all SDG&E employees covered by the plan.

Is Metric Linked to Executive (Director Level or Higher) Positions? (Ordering Paragraph 6B.)– [Yes/No]

- Yes. SDG&E's LTI Rate performance measure is linked to all SDG&E director or above positions covered by either the 2019 Executive ICP or 2019 non-executive ICP.

Bias Controls: If any of the above are answered "yes," provide a description of bias controls in place for this specific metric.

- Sempra Energy's Audit Services department audits SDG&E's annual Executive ICP and non-executive ICP results and calculations. Each safety-related performance metric is

well defined in the approved annual ICP plan. The annual ICP plan further specifies how each metric is tracked. SDG&E's ICP performance results are reviewed by the Sempra Energy Audit Services department prior to board approval.

N. Metric No. 18: Contractor OSHA Recordables Rate

Metric Name and Description per D.19-04-020: "Contractor OSHA Recordables Rate: An OSHA recordable incident is an occupational (job-related) injury or illness that requires medical treatment beyond first aid, or results in work restrictions, death or loss of consciousness. OSHA recordable rate is calculated as OSHA recordable times 200,000 divided by contractor hours worked."

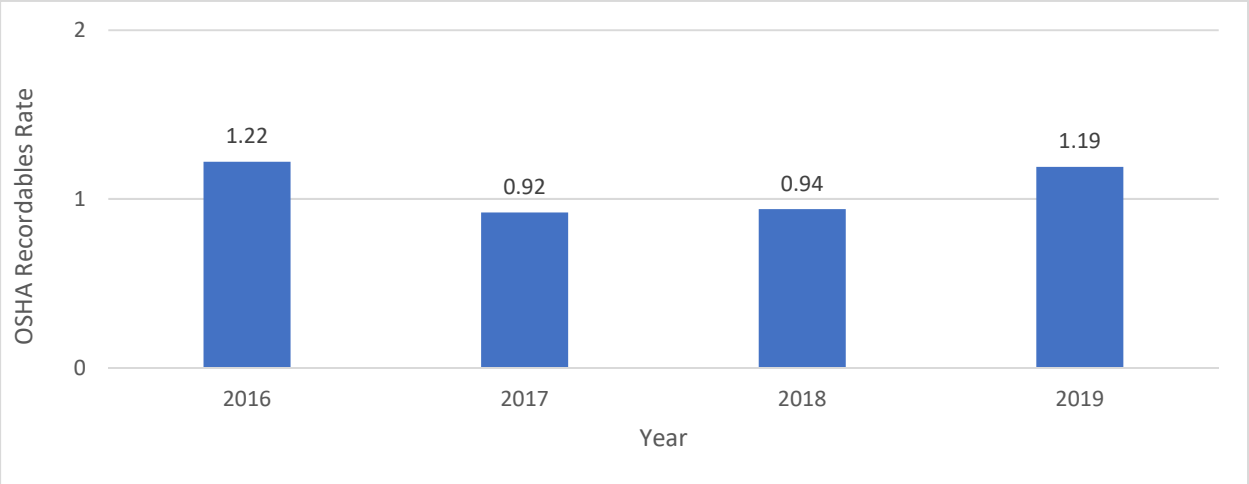
Risks: Contractor Safety

Category: Injuries

Units: OSHA recordable times 200,000 divided by contractor hours worked associated with work for the reporting utility

Summary:

Summary Chart of Contractor OSHA Recordables Metric Data (Year-end)



Narrative Context:

SDG&E standardized its approach to contractor safety by implementing a Contractor Safety Oversight Program. SDG&E uses both the Contractor Safety Program Standard G8308, the internal standard for SDG&E, and the Class 1 Contractor Safety Manual for contractors in

order to hold all business unit employees and Class 1 Contractors to the same requirements and/or standards. Contractor Safety Services provides oversight through field safety observations of Class 1 Contractors to verify program requirements are being followed in the field. This oversight includes instituting safeguards for all contracted work to be performed in accordance with SDG&E standards, OSHA regulations, applicable laws, Commission Orders (such as GO 95, Rules for Overhead Electric Line Construction), and GO 128 (Rules for Construction of Underground Electric Supply and Communications Systems). These safeguards include administrative activities associated with construction services-managed construction work and pre-qualification of all Class 1 contractors in accordance with the Program.

SDG&E currently uses certain third-party administration tools to verify that contractors comply with SDG&E's established safety requirements according to the Class 1 Contractor Safety Manual and the contractual requirements. In 2019, the Contractor Safety Oversight Program increased the scope of contractors reporting into the ISN data management system (ISNetworld is the third-party administrator of the SDG&E contractor safety program). This resulted in many contractor businesses reporting for the first time, with increased oversight and scrutiny by SDG&E of their safety performance and quality of safety reporting. ISNetworld monitors new and changing OSHA requirements and verifies that SDG&E's Class 1 Contractors meet minimum OSHA requirements for written safety programs for the work performed and grades Class 1 Contractors according to the pre-qualification criteria SDG&E establishes. Contractor recordable rates increased in 2019 due to this expanded oversight and reporting. I

SDG&E believes that consistent safety oversight of Class 1 Contractors will lead to consistent and accurate reporting of incidents. Additionally, SDG&E is currently evaluating

initiatives to update the Class 1 Contactor Safety Manual and hold contractor quarterly and monthly meetings to educate and expand open lines of communication.

Historical Data:

SDG&E began tracking this metric in 2014. The accompanying Excel file provides monthly data for 2014 through 2019 for SDG&E's Contractor OSHA Recordables Rate. The OSHA recordable rate is calculated as OSHA recordable times 200,000 divided by contractor hours worked. SDG&E utilizes a third-party administration tool to collect SDG&E-specific hours and incidents to calculate the rates reported to OSHA and included in Attachment B. SDG&E will continue collecting this data for inclusion in future annual Safety Performance Metrics Reports until a full ten years of monthly historical data exists.

Is Metric Used for the Purposes of Determining Executive (Director Level or Higher) Compensation Levels and/or Incentives? (Ordering Paragraph 6A.)– [Yes/No]

- No

Is Metric Linked to the Determination of Individual or Group Performance Goals? (Ordering Paragraph 6A.)– [Yes/No]

- No

Is Metric Linked to Executive (Director Level or Higher) Positions? (Ordering Paragraph 6B.)– [Yes/No]

- No

Bias Controls: If any of the above are answered "yes," provide a description of bias controls in place for this specific metric.

- N/A

O. Metric No. 20: Contractor Serious Injuries and Fatalities

Metric Name and Description per D.19-04-020: "Contractor Serious Injuries and Fatalities: A work-related injury or illness that results in a fatality, inpatient hospitalization for more than 24 hours (other than for observation purposes), a loss of any member of the body, or any serious degree of permanent disfigurement."

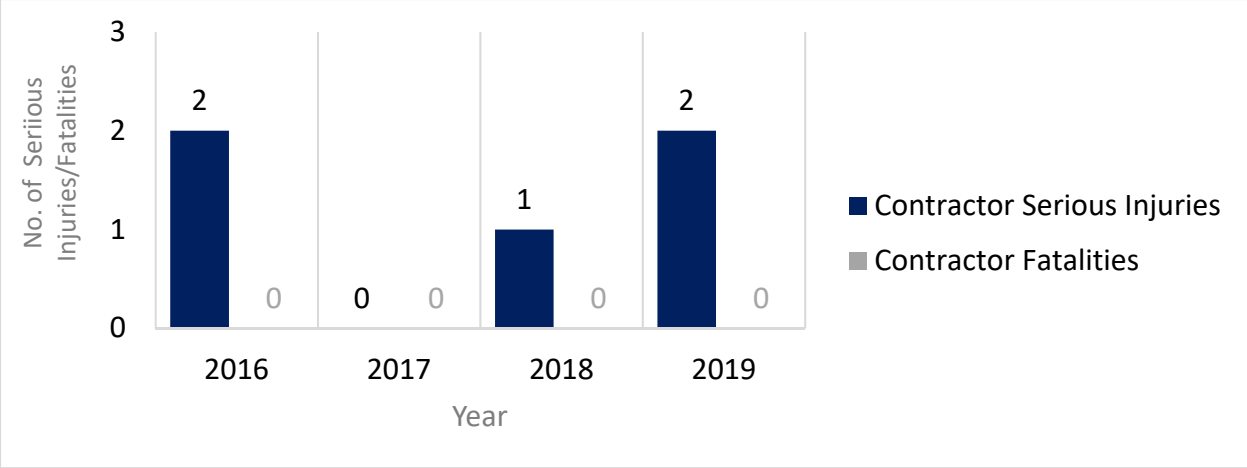
Risks: Contractor Safety

Category: Injuries

Units: Number of work-related injuries or illnesses associated with work for the reporting utility

Summary:

Summary Chart of Contractor Serious Injuries Fatalities Metric Data (Annual)



Narrative Context:

In addition to the programs and initiatives discussion above for SDG&E's Contractor OSHA Reportable Rate metric, SDG&E has implemented programs such as "Stop the Job" and "Near Miss Reporting" in an effort to further reduce the risk of serious injuries and fatalities to its Class 1 contractors. The Stop the Job (STJ) Process is a protocol SDG&E has established for all contractors. It gives authority to everyone onsite to stop a job or task if an unsafe work condition or activity is identified. All work must immediately cease in the area of concern once the STJ is declared until site supervision and the involved contractor(s) have conducted an

investigation, the identified situation is abated, controlled, or otherwise determined to be safe, and the situation and outcome are explained to affected personnel. SDG&E requires its contractors to report all incidents per the Class 1 Contractor Safety Manual including near miss/close call incidents immediately, then monthly in a report. This information is then tracked and used during SDG&E's Class 1 Contractor safety observations and also communicated out to contractors, if applicable.

As described in SDG&E's 2019 RAMP submission,[65] SDG&E plans to update the Class 1 contractor safety manual annually or as needed with new requirements and/or updating regulatory and SDG&E requirements. SDG&E also plans to develop a manual for Class 2 contractors that are not currently covered under the enhanced contractor safety program or Class 1 Contractor Safety Manual. Class 2 Contractors are defined as: a contractor engaged to perform any other work (than defined as Class 1). Examples of Class 2 Contractors include contractors engaged to perform administrative tasks or IT work. SDG&E also plans to create a portal and/or app where Class 1 Contractors can submit near miss/close call incidents. Near miss/close call incidents are already required to be reported to SDG&E but are collected on an incident report form. A new reporting mechanism could promote the submittal of near miss/close call incidents, a leading indicator that reflects a proactive safety program and culture.

Historical Data:

SDG&E began tracking this metric in 2012. The accompanying Excel file provides monthly data for 2012 through 2019 for SDG&E's Contractor Serious Injuries and Fatalities. This data includes any work-related injury or illness that results in a fatality, inpatient hospitalization for more than 24 hours (other than for observation purposes), a loss of any

[65] I.19-11-010/-011 (cons.), *see,* RAMP Chapter SDG&E-2 Contractor Safety.

member of the body, or any serious degree of permanent disfigurement, as provided in the S-MAP Phase Two Decision metric definition. SDG&E utilizes a third-party administration tool to collect SDG&E-specific incidents for the data reported to OSHA and included in Attachment B. SDG&E will continue collecting this data for inclusion in future annual Safety Performance Metrics Reports until a full ten years of monthly historical data exists.

Is Metric Used for the Purposes of Determining Executive (Director Level or Higher) Compensation Levels and/or Incentives? (Ordering Paragraph 6A.)– [Yes/No]

- No

Is Metric Linked to the Determination of Individual or Group Performance Goals? (Ordering Paragraph 6A.)– [Yes/No]

- No

Is Metric Linked to Executive (Director Level or Higher) Positions? (Ordering Paragraph 6B.)– [Yes/No]

- No

Bias Controls: If any of the above are answered "yes," provide a description of bias controls in place for this specific metric.

- N/A

P. Metric No. 21: Contractor Lost Work Day Case Rate

Metric Name and Description per D.19-04-020: "Contractor Lost Work Day Case Rate: This measures the number of Lost Workday (LWD) cases incurred for contractors per 200,000 hours worked (for approximately every 100 contractors). A Lost Workday Case is a current year OSHA Recordable incident that has resulted in at least one lost workday. An OSHA Recordable incident is an occupational (job related) injury or illness that requires medical treatment beyond first aid, or results in work restrictions, death or loss of consciousness. The formula is: LWD Case Rate = Number of LWD Cases / productive hours worked x 200,000."

Risks: Contractor Safety

Category: Injuries

Units: Number of Lost Work Day (LWD) cases incurred for contractors per 200,000 hours worked associated with work for the reporting utility

Summary:

Summary Chart of Contractor Lost Work Day Case Rate Metric Data (Year-end)

Narrative Context: