Safety Policy Division Review of Southern California Gas Company's 2020 Safety Performance Metrics Submittal Pursuant to Decision 19-04-020

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I. Purpose

On April 1, 2020, pursuant to Ordering Paragraph 2 in Decision (D.)19-04-020 of the Safety Model Assessment Phase (S-MAP) proceeding, A.15-05-002 et al, SoCalGas filed with the California Public Utilities Commission (CPUC or Commission) a Safety Performance Metrics Report. SoCalGas also concurrently distributed the report to members on the service list in A.15-05-002.

D.19-04-020 also directed Safety and Enforcement Division staff to review the submitted safety performance metrics reports. Since the Risk Assessment staff section that is responsible for the evaluation of these reports has migrated from the Safety Enforcement Division to the Safety Policy Division (SPD), this letter summarizes SPD staff's evaluation results on SoCalGas's Safety Performance Metrics Report.

II. Overview of SoCalGas Report

SoCalGas submitted data on 15 metrics as required by D.19-04-02 (Table 1). Their report is divided into five sections:

I. **Introduction/Overview**: provides a narrative overview of SoCalGas's safety organizational structure and compliance with S-MAP Phase Two Decision Directives.
II. **Metrics Overview**: provides a summary of how metrics were used to inform improved training and corrective actions, and how safety performance metrics data is used to support risk-based decision making.
III. **Description of Bias Controls – Overview:** summarizes executive compensation and bias controls.
IV. **Interim Risk Mitigation Accountability Report (RMAR) Requirements:** provides summary of how safety metrics reflect progress against SoCalGas's RAMP and GRC safety goals and total estimated risk mitigation funding.
V. **Approved Safety Performance Metrics:** includes a narrative overview and analysis of each of SoCalGas's 15 metrics, along with required reporting information on executive compensation.

Table 1. Overview of Metric Data Submitted.

Category	Safety Performance Metric		Unit
Gas	5	Gas Dig-in	# of 3rd party gas dig-ins per 1,000 USA tags/tickets
	6	Gas In-Line Inspection	# Miles inspected
	8	Shut in the Gas Average Time – Mains	Average (median) time in minutes required to stop the flow of gas
	9	Shut in the Gas Average Time – Services	Average (median) response time in minutes required to stop the flow of gas during incidents involving services
	10	Cross Bore Intrusions	# of cross bore intrusions per 1,000 inspections
	11	Gas Emergency Response	Average response time in minutes (mean)
	12	Natural Gas Storage Baseline Inspections Performed	# of Inspections
	13	% of the Gas System that can be Internally Inspected	Percentage
Injuries	14	Employee Serious Injuries and Fatalities (SIF)	# of Serious Injuries/ Fatalities
	15	Employee Days Away, Restricted, or Transferred (DART) Rate	DART Cases times 200,000 divided by employee hours worked
	18	Contractor OSHA Recordables Rate	OSHA recordable times 200,000 divided by contractor hours worked associated with work for the reporting utility
	20	Contractor SIF	# of work- related serious injuries or fatalities associated with work for the reporting utility

Category	Safety Performance Metric		Unit
	21	Contractor Lost Work Day (LWD) Case Rate	# of LWD cases incurred for contractors per 200,000 hours worked associated with work for the reporting utility
	22	Public SIF	# of Serious Injuries/ Fatalities
Vehicles	23	Helicopter/ Flight Accident or Incident	# of accidents or incidents

Observations: In their report, SoCalGas includes: 10 years of data on four metrics; eight years of data on one metric; six years of data on two metrics; five years of data on one metric; four years of data on one metric; three years of data on three metrics; two years of data on two metrics; and no data on one metric. Of the ten years requested per metric, they had data for 55% of the years; this number was relatively low in comparison to the other three IOUs. A summary of the number of years of data provided for each metric is in Figure 1.

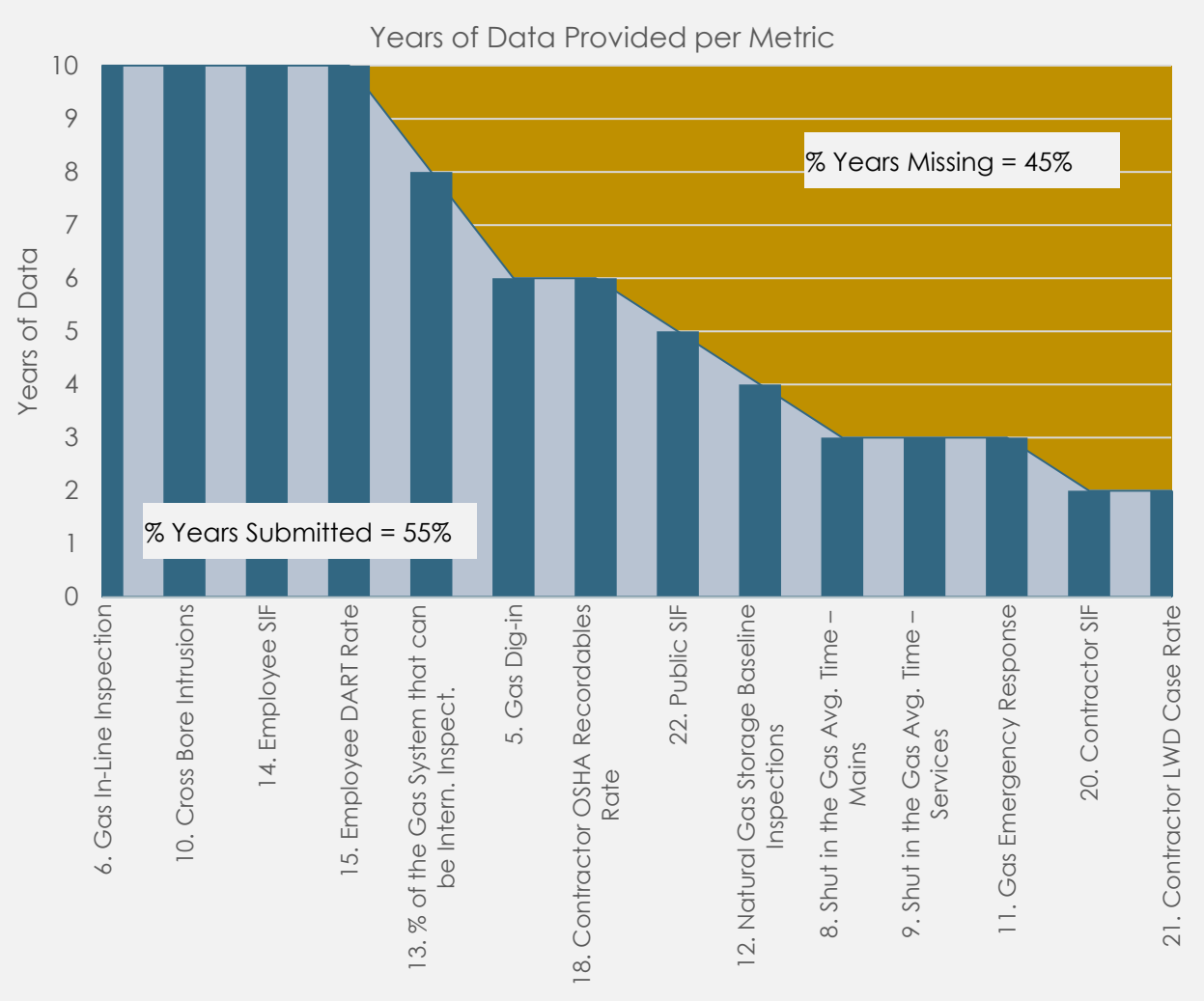


Figure 1. Years of Data per Metric. The shaded area in the top right of the figure above corresponds to the additional years of data needed for SoCalGas to have 10 years of data for all metrics.

SoCalGas additionally provides information on which metrics were tied to executive compensation through SoCalGas's Incentive Compensation Plans, reporting that 10 of 15 metrics (approximately 67%) were tied to executive compensation in 2019 (Figure 2). SoCalGas also describes bias controls in place for their 15 metrics and provides a narrative description of what some metrics are used for. An evaluation of SoCalGas's bias controls is displayed in Figure 3.

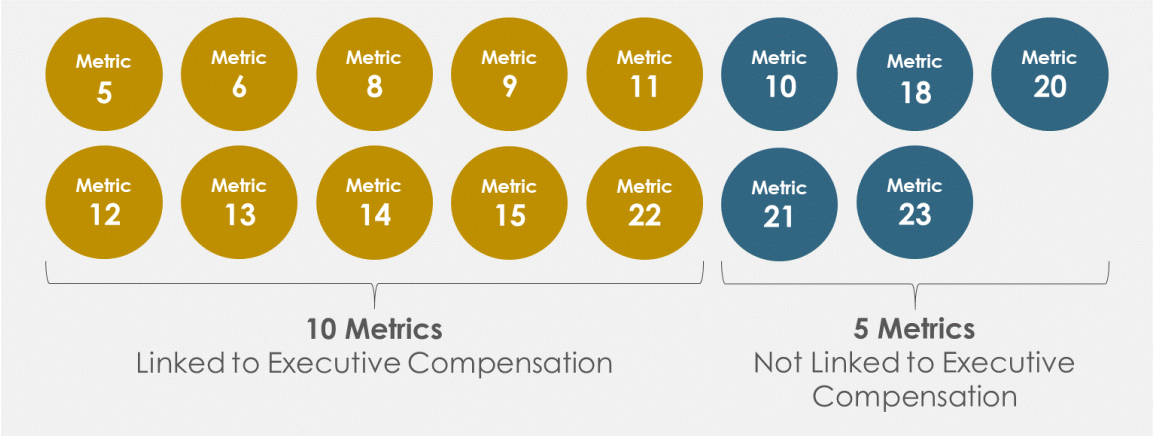


Figure 2. SoCalGas Metrics Linked to Executive Compensation. 10 of SoCalGas's 15 metrics were linked to executive compensation in 2019.

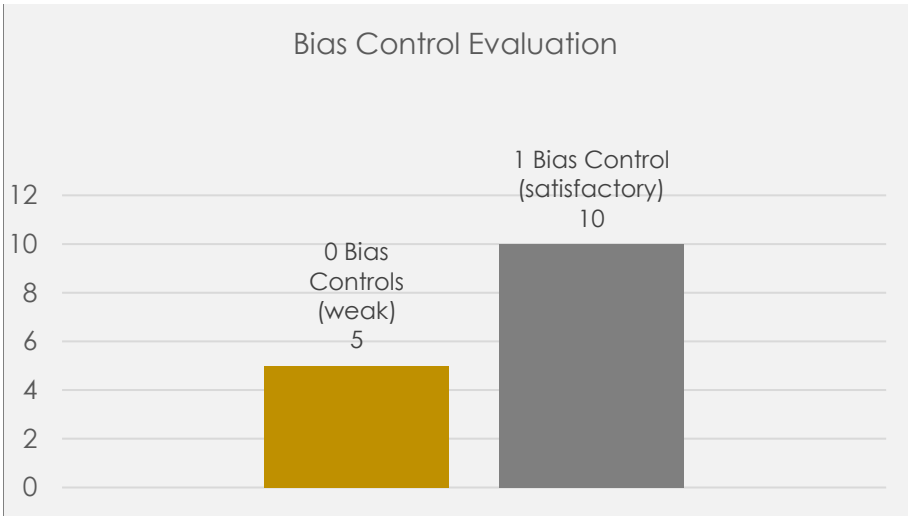


Figure 3. Evaluation of SoCalGas's Bias Controls. Five metrics had no bias controls (weak) and 10 metrics had 1 bias control (satisfactory).

Overall, the Safety Performance Metrics data shows that for six out of 15 tracked metrics, SoCalGas performed better in 2019 than the average of preceding years and for two out of 15 metrics, SoCalGas performed worse in 2019 than the average. For one metric (Metric 23), SoCalGas did not report any data, and for six metrics (Metrics 8, 9, 11, 12, 20, and 21), there were five or fewer years of data, which was not enough years to identify an accurate historical average for benchmarking 2019 performance. SoCalGas's metric performance is summarized in Figure 4, which shows the percent change in SoCalGas's 2019 performance compared to the historical average for each metric (excluding Metrics 8, 9, 11, 12, 20, 21, and 23). Positive values show an improvement in metric performance compared to the historic average and negative values show a decline in performance.

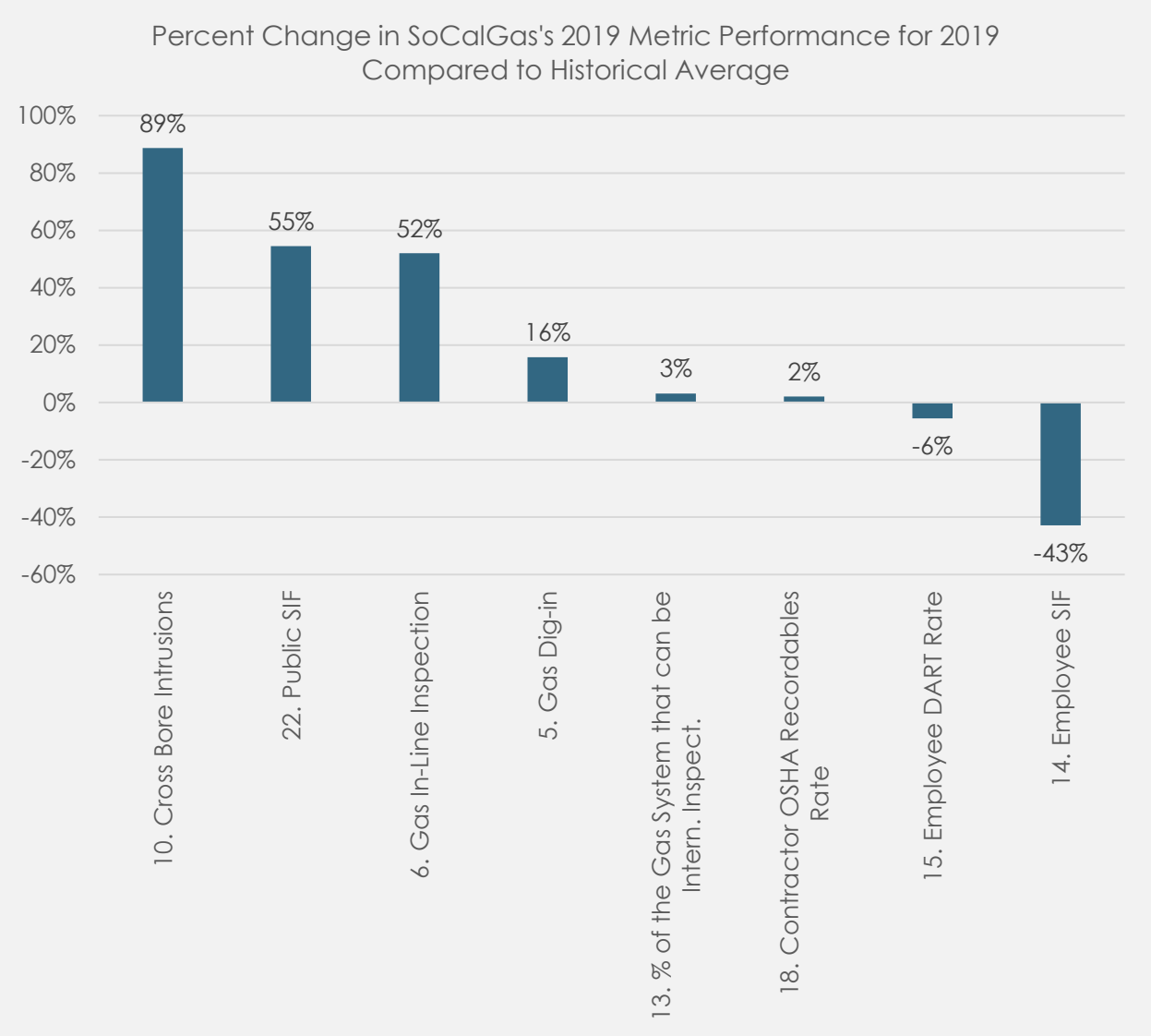


Figure 4. Evaluation of SoCalGas's 2019 Metric Performance. For metrics where a higher value is better, positive values show a percent increase in the metric's performance in the graph; for metrics where a lower value is better, (e.g., fire ignitions, wires down, SIF, etc.), positive values show a percent decrease in the metric's performance.

III. Compliance with Requirements in D.19-04-20

This section reviews SoCalGas's compliance with requirements within D.19-04-20.

Ordering Paragraph 2 requires data for the last ten years for all safety performance metrics for which such data exist. SoCalGas reports that they included data for the last ten years when possible. For four of their 18 metrics, SoCalGas included data for the last ten years.

Observations: While SoCalGas reported data for all the years that they had, they had relatively fewer years of data than the other three utilities. This made certain comparisons across utilities difficult, but these analyses should become feasible in future years as SoCalGas continues to collect data on the required metrics.

Ordering Paragraph 3 requires the utility to submit current year data on public serious injuries and fatalities (SIF). Pursuant to Ordering Paragraph 3 of D.19-04-020, SoCalGas provided SED staff with its data on Public Serious Injuries and Fatalities sixty days prior to the due date for this report on January 31, 2020, fulfilling this requirement.

Ordering Paragraph 6 (a) requires the utility to identify all metrics linked to or used in any way for the purpose of determining executive compensation levels and/or incentives, regardless of whether or not systems are in place to control bias, and including all metrics linked to individual and group performance goals; executive compensation. SoCalGas focuses on safety through their compensation and benefits programs and reports that they have increased emphasis on employee and operational safety measures in their variable pay plans, referred to as the Incentive Compensation Plans (ICP). Within the narrative accompanying each metric, SoCalGas states whether the metric was linked to executive compensation or incentives in 2019.

Of the key priorities that their compensation focuses on, SoCalGas states that the most important is safety. Executive compensation is determined by Base Pay, Variable Pay, and Sempra Energy's Long-term Incentive Plan. SoCalGas has increased the weighting of safety measures in variable pay plans in recent years, such that safety-related measures composed 55% of SoCalGas's Executive Incentive Compensation Plan in 2019. Safety measures or goals are reflected in the "Safety Management Systems" category of SoCalGas's 2019 Executive and non-executive Incentive Compensation Plans. These performance goals and measures create incentives to meet specified safety goals. SoCalGas's Board of Directors review and approve the results of each year's ICP and have discretion to reduce or withhold Variable Pay if safety performance goals are not met.

SoCalGas reports that 10 of their 15 Safety Performance Metrics (approximately 67%) were linked to executive compensation for all director-level and higher positions through their Executive and non-executive Incentive Compensation Plans in 2019.

Observations: SoCalGas provides helpful context in understanding the extent to which safety performance is linked to Variable Pay for executive officers, but left out certain quantitative and qualitative details. For example, we do not know whose specific compensation is tied to various metrics beyond that all executive officers are covered by either the Executive or non-executive Incentive Compensation Plans. SoCalGas states that their Board of Directors can reduce or withhold Variable Pay if safety performance goals are not met, but we do not know the performance threshold that triggers this response, whether this has been done in recent history, and whether it resulted in future safety performance improvement. Further, we do not have information on if and how the Board of Directors has reduced executive compensation in years in response to SoCalGas not meeting its safety performance goals. Without this information, it is not possible for the CPUC to analyze whether decreasing executive compensation in a given year results in the executive taking action to correct safety performance in subsequent years, or if increasing/ maintaining executive compensation encouraged continued good safety behavior. There seems to be a link missing between the basic information tracked with this requirement and its observed effect on safety performance.

Ordering Paragraph 6 (b) requires the utility to identify the Director-level or higher executive positions to which the metric(s) is linked. SoCalGas states that the metrics are linked to all executive (Director level or higher) positions.

Observations: No additional explanation is given to show how many individuals this applies to or which positions were implicated. A more specific response could provide helpful context for evaluating this information.

Ordering Paragraph 6 (c) requires the utility to describe 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. SoCalGas reports that regularly scheduled internal audits are performed by Sempra Energy Audit Services. Audit Services investigates whether SoCalGas's processes and business controls are adequate; in compliance with plans, procedures, laws, and contracts; and reflect reliability and integrity of operating and financial information. SoCalGas reports that this independent audit function allows Audit Services to identify if appropriate business controls are in place and designed and functioning properly.

SoCalGas notes that their 2019 Executive and non-executive ICP each include eight separate safety-related performance measures, including leading and lagging measures. SoCalGas states that having several measures across all lines of business serves as a bias control because the company must perform on all measures to achieve target goals. Metric-specific bias controls are listed in the narrative accompanying some of their metrics.

Observations: While some other utilities included quality assurance/controls as bias controls for metrics, SoCalGas only included bias controls related to auditing the results of their ICPs. Therefore, if a metric was not linked to executive compensation, no bias controls were listed for that metric. While this complies with the ordering paragraph, it would be beneficial to know other bias controls in place for all metrics that help assure data quality and accuracy. It would also be helpful to understand if other utilities and industries also exclusively use internal audits to control for bias. There may be a conflict of interest if staff working on internal audits reports to the directors whose executive compensation is affected by these metrics.

Ordering Paragraph 6 (d) requires the utility to Provide three to five examples of how the utility has used Safety Performance Metrics (metrics) data to improve staff and/or contractor training, and/or to take corrective actions to minimize top risks or risk drivers; and, provide three to five examples of how the utility is using metrics data to support risk-based decision-making as required in the Safety Model Assessment Proceeding and Risk Assessment Mitigation Phase (RAMP) processes.

SoCalGas notes that they were tracking safety metrics, taking corrective actions, and implementing and improving safety training in years prior to the S-MAP Phase Two Decision. They frame their Safety Performance Metric work as a part of their broader Safety Management System that drives continuous safety improvement through people, policies, procedures, and programs. Their goal is to continue to move towards a data-driven approach to proactively identify threats and hazards, assess and prioritize risks, and implement mitigation efforts.

To illustrate their work towards safety improvement, SoCalGas provides three recent examples of improvements to trainings or corrective actions:

1. **OSHA 30-hour Construction Certification Training – Metric 14, 15, 16, 17:** SoCalGas is implementing a new 30-hour OSHA training for all field supervisors and field employees involved in construction and operations activities. By teaching employees how to better identify hazards, SoCalGas expects the training to help reduce the risk of injuries and promote workplace health and safety.

2. **Install Warning Mesh Above Company Buried Pipelines (New Open Trench Facilities) – Metric 5:** SoCalGas's RAMP submission showed that approximately 60% of dig-in incidents were due to third parties' failure to notify 811 USA for a locate and mark ticket and 28% were due to inadequate excavation practices after 811 USA was called and underground facilities were marked. In response, SoCalGas has developed a program to install warning mesh to new and open trenches prior to backfilling that visually warns excavators that a gas line is present/ nearby and place them on notice to contact 811 prior to further excavation.
3. **Expanded Contractor Safety Oversight Program – Metrics 18, 19, 20, 21:** SoCalGas plans to expand its contractor oversight by implementing a Contractor Safety Manual, establishing a process to pre-qualify contractors on safety practices, and adding resources for participating in incident investigations. They will add seven safety advisors to conduct safety audits of contractors during construction projects, which will allow SoCalGas to assess contractors' compliance with the Contractor Safety Program and take corrective actions as needed.

Additionally, SoCalGas provides three examples of how the Safety Performance Metric data is used to support risk-based decision-making:

1. **Capital Planning Process and Resource Allocation Methodology:** Through its annual capital planning process, SoCalGas evaluates projects based on metrics including safety. Reprioritizations are made as necessary throughout the year to address new safety concerns, and SoCalGas continues to work towards the goal of determining quantitatively the risk reduction per dollar invested.
2. **Dedicated Safety Management System (SMS):** SoCalGas's dedicated SMS organization reports to the Chief Operating Officer and Chief Safety Officer and develops and implements their comprehensive SMS framework. The SMS framework focuses on three primary areas: employee and contractor safety, customer and public safety, and safety of the gas delivery system. The SMS organization provides guidance on establishing policies, standards, procedures, and performance measures; leads incident investigations and shares lessons learned; leads annual management review and safety assurance functions, and works with employees to provide safety, compliance, and emergency preparedness support.
3. **The Distribution Risk Evaluation and Monitoring System (DREAMS) Program:** The DREAMS Program is SoCalGas's pipeline replacement program that uses a relative risk model to prioritize medium pressure segments for replacement. A risk algorithm that includes pipe attributes, operational conditions, and impact on population Is used to determine appropriate actions to mitigate risk for the segment and prioritize replacement based on leakage root cause analysis.

Observations: SoCalGas's six examples fulfill the requirement to show how they use Safety Performance Metrics in action. To better understand when they implemented these initiatives and track their progress, SoCalGas should include the year in which all efforts were initiated. This would help the CPUC analyze whether the Safety Performance Metrics inform new safety efforts or decision-making. Further, Example 3 states that SoCalGas plans to develop and implement a Contractor Safety Manual, but also notes that they issued a Contractor Safety Manual for all Class 1 contractors in 2017, which seems contradictory. For the risk mitigation-related examples, it would also be helpful to know which specific metric each example initiative is linked to.

Ordering Paragraph 6 (e) requires the utility to explain how the safety metrics reflect progress against the utility's RAMP and General Rate Case safety goals. SoCalGas describes their commitment to integrating the use of probabilistic models, data, and quantification in addressing enterprise-level risks. They report that they are developing risk registries, a tool that will provide each operating unit with a way to identify and manage risks that occur more frequently at the operating unit level. This will help SoCalGas align risks with asset management practices. SoCalGas also notes that they continually integrate metrics into their

risk-based decision-making to evaluate and monitor asset health and inform and demonstrate progress related to investments. Finally, SoCalGas has an enterprise-wide SMS, which integrates risk, safety, and asset management under one framework and make progress towards RAMP and GRC safety goals.

Observations: SoCalGas includes a table that lists RAMP Risks and their associated O&M and Capital spending for 2019. To explicitly show how RAMP Risks are linked to Safety Performance Metrics, SoCalGas could list the metrics that are associated with various RAMP Chapters/ identified RAMP Risks.

Ordering Paragraph 6 (f) requires the utility to provide a high-level summary of their total estimated risk mitigation spending level as approved in their most recent GRC. SoCalGas includes a table that summarizes total estimated risk spending levels as approved in their most recent GRC for their Operations and Maintenance budget and Capital budget. They provide actual and authorized funding for each RAMP Risk.

Observations: SoCalGas provides the information required in this ordering paragraph.

Overall Compliance: SoCalGas's submitted metrics report complies with all the required elements listed in Question 1 above.

IV. Summary of 2019 Metrics

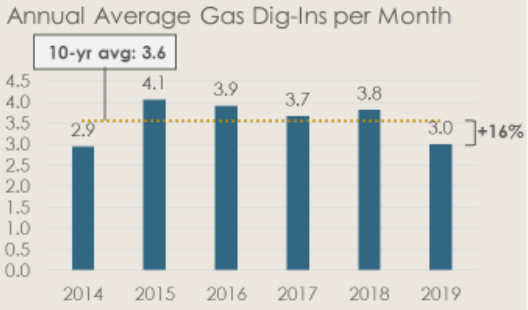
This section provides an overview of information submitted for each of SoCalGas's 15 metrics. The graphic for each metric shows:

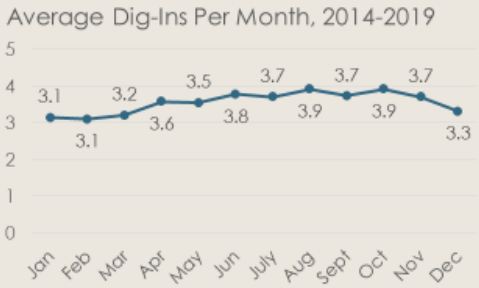
- Whether the metric is a leading or lagging indicator: per D.19-04-020, lagging metrics typically indicate safety performance after safety incidents (for example, the number of explosions due to cross bore intrusions), whereas the related leading metric would anticipate potential future safety incidents (in this example, the number of cross bore intrusions found);
- Data reported by the utility: data is plotted in graphs with the historical average, where relevant, to compare 2019 performance to past performance for the metric.
- The definition of the metric from D.19-04-020, associated bias controls, and executive compensation linkages listed for the metric.

To caveat the metric reviews in the following pages, note that the smaller the number of reported occurrences (relative to the exposure), the higher is the uncertainty associated with the reported metric numbers. For example, Serious Injury and Fatality (SIF) values are so few (relative to the total exposure) in any given year that the reported variations from year to year do not necessarily represent improvements or worsening of safety records. For these metrics with few occurrences relative to exposures, observed trends over a much longer period may be necessary to reach credible conclusions based on the data.

SoCalGas Metric 5: Gas Dig-In

Lagging Gas





METRIC DEFINITION

of 3rd party gas dig-ins per 1,000 Underground Service Alert (USA) tags/tickets for gas; excludes fiber and Electric tickets. Any damage (impact or exposure) that results in a repair or replacement of underground gas facility as a result of an excavation, caused by someone other than the utility or a utility contractor

Bias controls

- Annual Incentive Compensation Plan results are audited by Sempra Energy's Audit Services

Executive compensation

- Linked to 2019 Executive and non-executive Incentive Compensation Plans
- Linked to determination of individual/ group performance goals in 2019

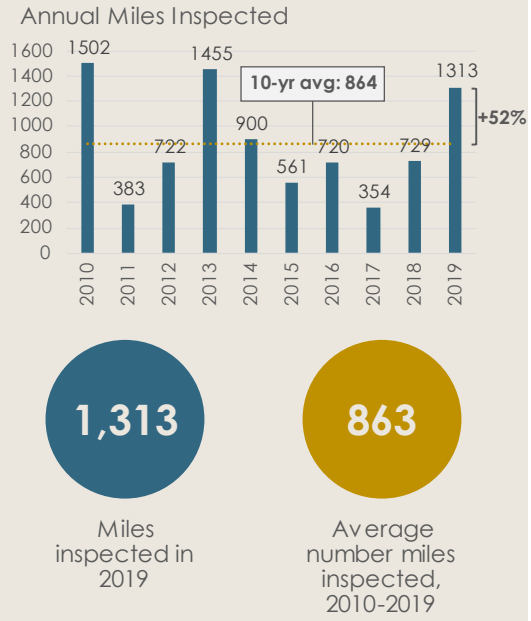
Metric 5 Summary: Third party gas dig-ins is identified as a RAMP risk for SoCalGas. SoCalGas reports that they analyzed the drivers of third-party dig in incidents and found that 60% were due to lack of notifications to 811 USA for locate and mark ticket and approximately 30% were due to insufficient excavation practices. They promote safe digging through their Public Awareness Program and stakeholder outreach.

This metric is linked to SoCalGas's 2019 Executive and non-executive Incentive Compensation Plans through a gas safety metric for "Damage Prevention - Damages per USA Ticket Rate." This metric is weighted at 6% of the 55% safety weighting for SoCalGas's 2019 Executive ICP and 4% of the 35% safety weighting for SoCalGas's 2019 non-executive ICP.

Observations: SoCalGas's inclusion of data on risk drivers for this metric is informative. There are no metric-specific bias controls for this metric beyond the Annual ICP results being audited by Sempra Energy's Audit Services. SoCalGas did not provide context as to why there may have been more gas dig-ins per month in 2015 than in other years.

SoCalGas Metric 6: Gas In-Line Inspection

Leading Gas



METRIC DEFINITION

Total miles of transmission pipe inspected by in-line inspection

Bias controls

- Annual Incentive Compensation Plan results are audited by Sempra Energy's Audit Services

Executive compensation

- Linked to 2019 Executive and non-executive Incentive Compensation Plans
- Linked to determination of individual/ group performance goals in 2019

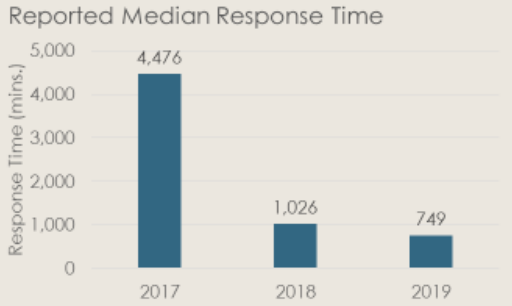
Metric 6 Summary: SoCalGas reports that through the federally-mandated Transmission Integrity Management Program (TIMP), they identify threats to transmission lines, determine the risk posed by those threats, schedule prescribed assessments to evaluate threats, collect information about the condition of pipelines, and take actions to minimize risks. SoCalGas notes that the numbers of assessment and mitigation activities planned under TIMP varies from year to year, and that transmission pipelines are required to be assessed at least once every seven years. TIMP reduces the risk of failure to the pipeline transmission system failure by detecting threats so that SoCalGas can take immediate action to reduce risk until a repair is completed. SoCalGas notes that they also track the total number of inspections scheduled/ total number of targeted inspections, but that data is not included here because it was not required.

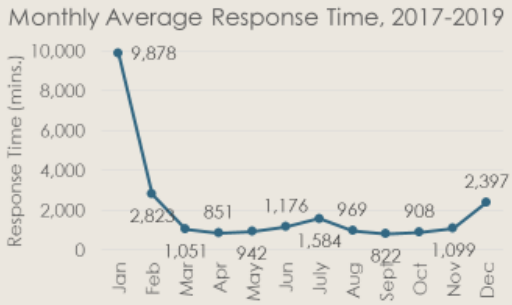
This metric is linked to SoCalGas's 2019 Executive and non-executive Incentive Compensation Plans through a customer, public, and system safety performance measure on the Pipeline Safety Enhancement Program (PSEP) – Number of Pipeline Miles Closed Out. This metric is weighted at 6% of the 55% safety weighting for SoCalGas's 2019 Executive ICP and 4% of the 35% safety weighting for SoCalGas's 2019 non-executive ICP, and is linked to all SoCalGas director or above positions.

Observations: SoCalGas's narrative provides context to explain year-to-year variation in the annual number of gas in-line inspections conducted. While SoCalGas notes that the numbers of assessment and mitigation activities planned under TIMP varies from year to year, and that transmission pipelines are required to be assessed at least once every seven years, it is unclear how many or what percent of transmission miles utilities should strive to inspect each year. Given that the total miles of transmission pipelines vary from utility to utility, this metric cannot be easily compared across utilities. To compare this metric across utilities, it would need to be converted to a ratio of miles inspected to total miles in the service territory. There are no metric-specific bias controls for this metric beyond the Annual ICP results being audited by Sempra Energy's Audit Services.

SoCalGas Metric 8: Shut in the Gas Average Time – Mains

Lagging Gas





METRIC DEFINITION

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.

Bias controls

- Annual Incentive Compensation Plan results are audited by Sempra Energy's Audit Services

Executive compensation

- Linked to 2019 Executive and non-executive Incentive Compensation Plans
- Linked to determination of individual/ group performance goals in 2019

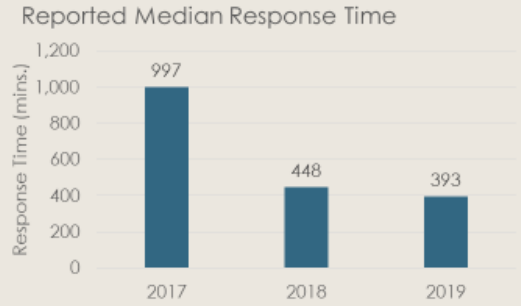
Metric 8 Summary: SoCalGas conducts pipeline monitoring activities including pipeline patrols, leak surveys, bridge and span inspections, and unstable earth inspections to proactively identify pipeline integrity issues. As part of SoCalGas's Distribution Integrity Management Program (DIMP), the Distribution Risk evaluation and Monitoring (DREAMS) program is used to prioritize risk mitigation on pipeline segments. SoCalGas anticipates a continual increase in the level of replacement over the next 6-8 years as their infrastructure continues to age and leak data is accumulated through annual inspections. SoCalGas notes that this data should be considered preliminary because this is the first time they have broken down this information between Mains and Services. They will continue to evaluate their data collection process to determine its validity, accuracy, and completeness.

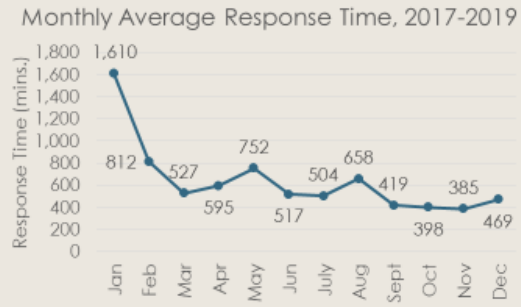
This metric is linked to SoCalGas's 2019 Executive and non-executive Compensation Plans through a customer, public, and system safety performance measure for "A1 Order Response Time," which measures the effectiveness of response time for Customer Services A1 gas leak orders. This metric is weighted at 6% of the 55% safety weighting for SoCalGas's 2019 Executive ICP and 4% of the 35% safety weighting for SoCalGas's 2019 non-executive ICP, and is linked to all SoCalGas director level or higher positions.

Observations: It appears that SoCalGas (and SDG&E) may be interpreting this metric differently than PG&E, as SoCalGas's response times were substantially higher than PG&E's average of 118 minutes for 2012-2019. PG&E may have only included incidents where a gas dig-in occurred, measuring how quickly the gas operator responds to stop the flow of gas in their reporting. In contrast, Sempra utilities may be including the response times for uncontrolled releases found during routine gas surveys, in addition to incidents where a gas dig-in occurred. The metric definition should be clarified to ensure that all utilities are reporting analogous information. There are no metric-specific bias controls listed for this metric beyond annual audits of ICP results.

SoCalGas Metric 9: Shut in the Gas Average Time – Services

Lagging Gas





METRIC DEFINITION

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.

Bias controls

- Annual Incentive Compensation Plan results are audited by Sempra Energy's Audit Services

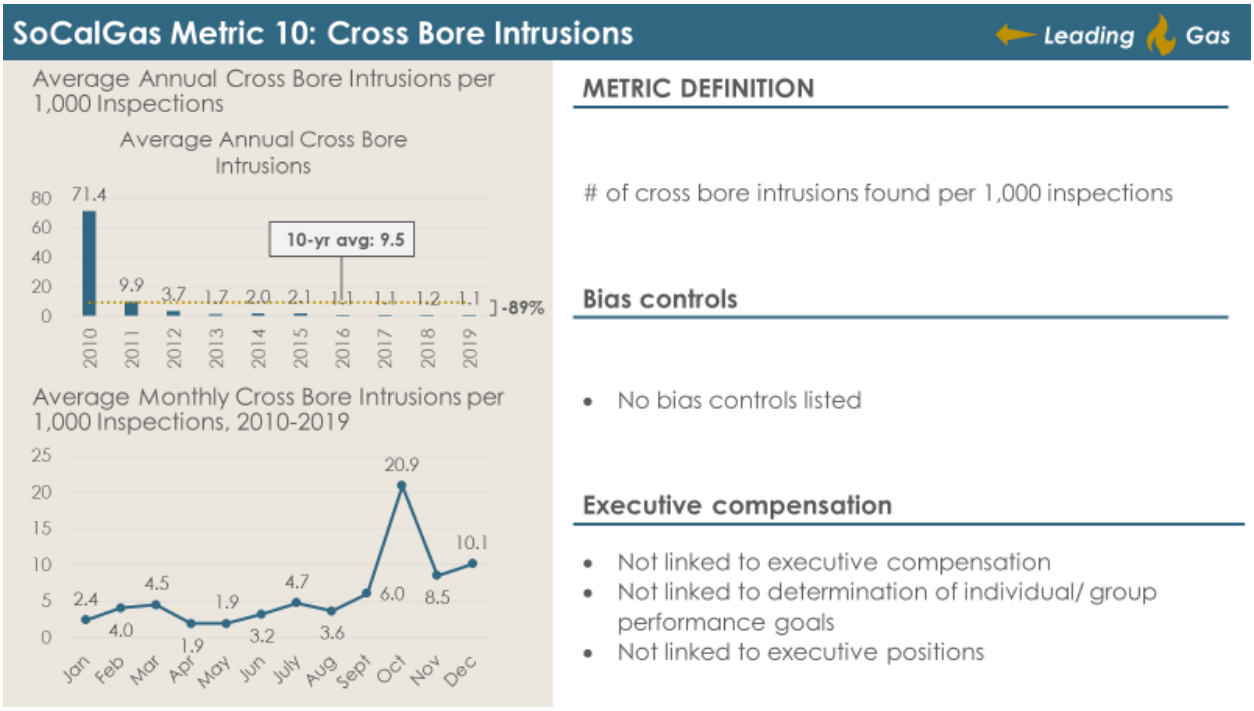
Executive compensation

- Linked to 2019 Executive and non-executive Incentive Compensation Plans
- Linked to determination of individual/ group performance goals in 2019

Metric 9 Summary: As stated within the narrative description for Metric 8, SoCalGas conducts pipeline monitoring activities including pipeline patrols, leak surveys, bridge and span inspections, and unstable earth inspections to proactively identify pipeline integrity issues. Again, SoCalGas notes that this data should be considered preliminary because this is the first time they have broken down this information between Mains and Services. They will continue to evaluate their data collection process to determine its validity, accuracy, and completeness.

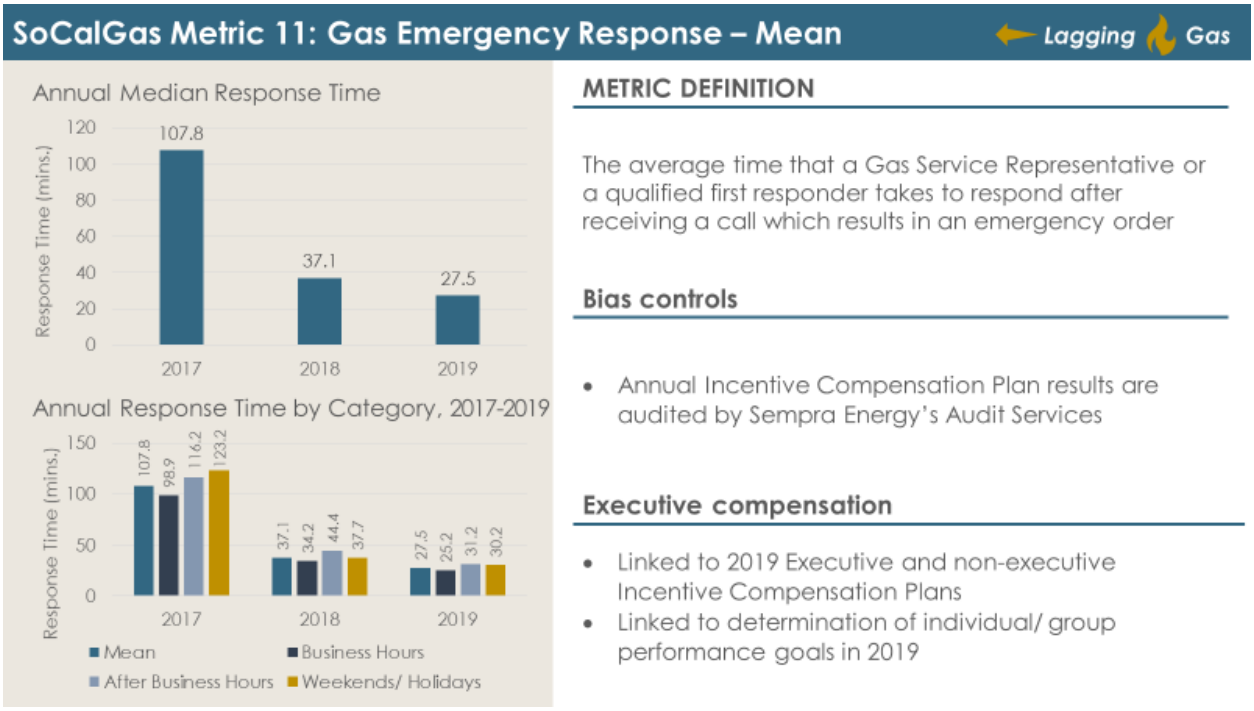
As with Metric 8, this metric is linked to SoCalGas's 2019 Executive and non-executive Compensation Plans through a customer, public, and system safety performance measure for "A1 Order Response Time," which measures the effectiveness of response time for Customer Services A1 gas leak orders. This metric is weighted at 6% of the 55% safety weighting for SoCalGas's 2019 Executive ICP and 4% of the 35% safety weighting for SoCalGas's 2019 non-executive ICP, and is linked to all SoCalGas director level or higher positions.

Observations: As with the previous metric, SoCalGas's average response time was substantially higher than PG&E's eight-year average of 51 minutes. This may indicate that the utilities are including different information in their reporting for this metric. There are no metric-specific bias controls listed for this metric beyond annual audits of ICP results.



Metric 10 Summary: Part of SoCalGas's Distribution Integrity Management System, the Sewer Lateral Inspection Project is a risk mitigation activity that helps identify the threats of events concerning pipeline damage within sewer laterals. Since this program was initiated in 2010, approximately two million services have been reviewed and over 240,000 services have been inspected in the field. SoCalGas notes that monthly data for September-December 2019 is reflected as an average of those four months due to a transition in their data collection system. This metric is not tied to executive compensation and there are no bias controls listed for this metric.

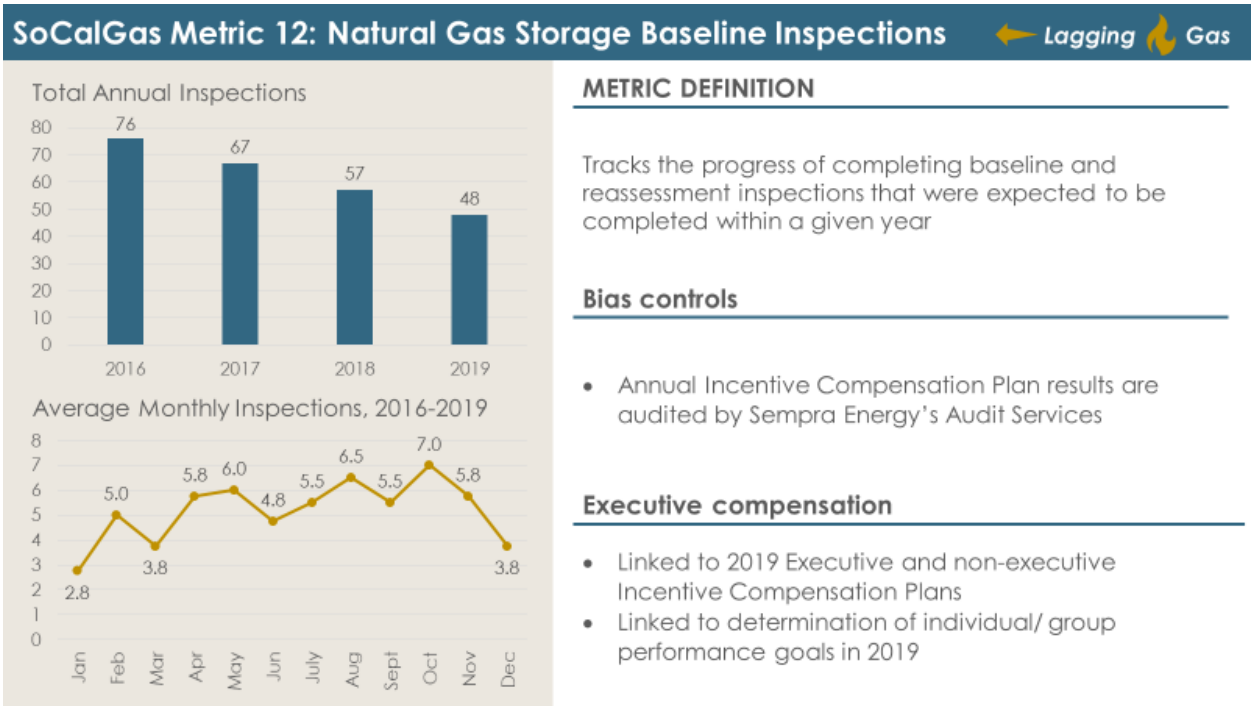
Observations: SoCalGas does not provide context as to why so many cross-bore intrusions were found in 2010 and the number dramatically declined in subsequent years. Since the metric was not tied to executive compensation, there are no bias controls listed; it would be helpful to understand if there are other quality assurance or controls in place.



Metric 11 Summary: SoCalGas's Customer Service Field technicians respond to calls of gas leaks or odors and performs gas leak investigations. SoCalGas attributes improvement in response times since 2017 in part to a Real Time Monitoring data collection effort that more accurately captures arrival times. They note that certain singular events that receive multiple calls can skew the average towards a slower average response time.

This metric is linked to SoCalGas's 2019 Executive and non-executive Compensation Plans through a customer, public, and system safety performance measure for "A1 Order Response Time," which measures the effectiveness of response time for Customer Services A1 gas leak orders. This metric is weighted at 6% of the 55% safety weighting for SoCalGas's 2019 Executive ICP and 4% of the 35% safety weighting for SoCalGas's 2019 non-executive ICP and is linked to all SoCalGas director level or higher positions.

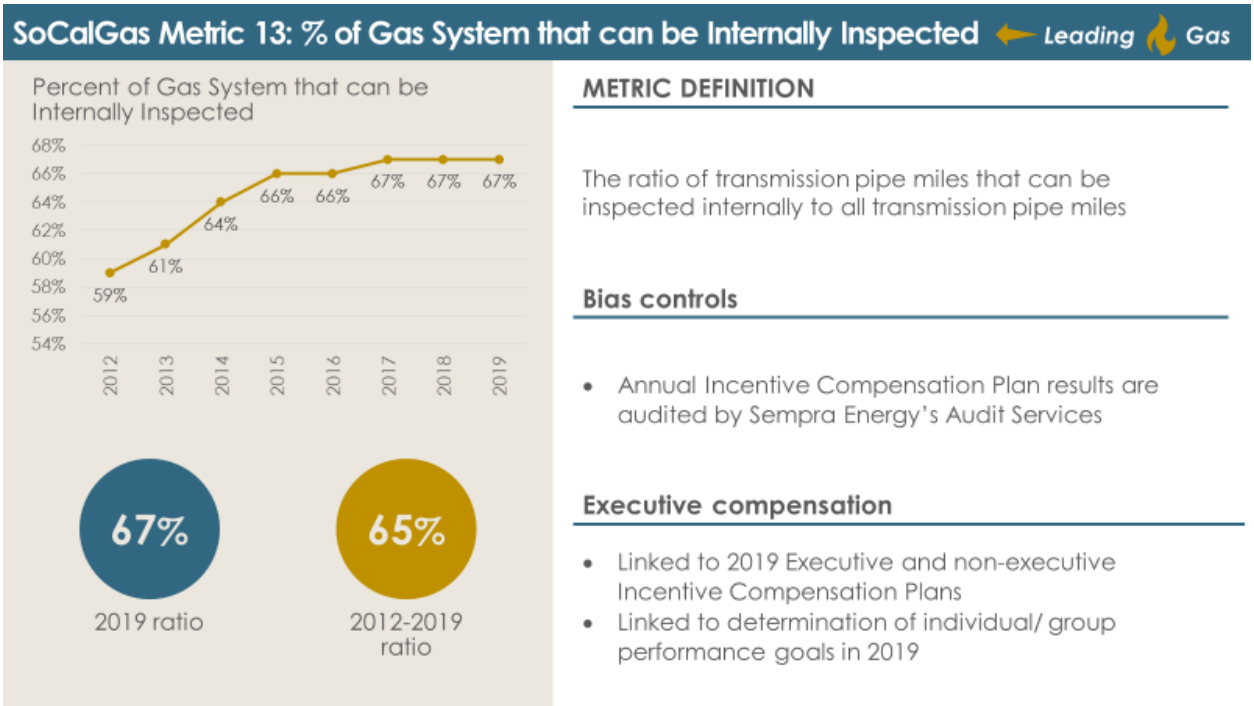
Observations: There are no metric-specific bias controls listed for this metric beyond annual audits of ICP results. SoCalGas does not provide context on what contributed to the decrease in emergency response time from 2017 to 2019.



Metric 12 Summary: This metric tracks the natural gas storage baseline inspections supported through SoCalGas's Storage Integrity Management Program, which was initiated in 2016. SoCalGas reports that this program uses advanced inspection technologies and risk management to identify and mitigate storage well and integrity issues. In 2019, SoCalGas competed baseline inspection for all its storage wells and has moved towards re-inspection.

This metric is linked to SoCalGas's 2019 Executive and non-executive Compensation Plans through a customer, public, and system safety performance measure on "Storage Integrity Management Program (SIMP) – Number of Wells Inspected and/or Abandoned." This metric is weighted at 6% of the 55% safety weighting for SoCalGas's 2019 Executive ICP and 4% of the 35% safety weighting for SoCalGas's 2019 non-executive ICP and is linked to all SoCalGas director level or higher positions.

Observations: There are no metric-specific bias controls listed for this metric beyond annual audits of ICP results. SoCalGas notes that since research and regulation on the recommended frequency for re-inspections is evolving, data for this metric may vary from year-to-year.

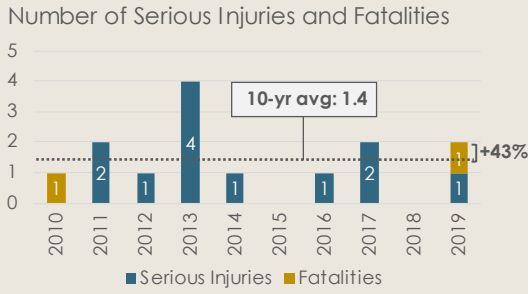


Metric 13 Summary: As described within the narrative context for Metric 6, SoCalGas's Transmission Integrity Management Program identifies and addresses threats to transmission pipelines, and pipelines are assessed at a minimum of every seven year. SoCalGas describes the process used to determine a pipeline's Relative Risk Score. SoCalGas notes that this metric represents the ratio of two metrics that ae tracked and reported to PHMSA: (1) transmission miles that can be inspected internally, and (2) the number of transmission miles. This is the first time SoCalGas has used these two metrics to calculate and report this percentage.

This metric is linked to SoCalGas's 2019 Executive and non-executive Compensation Plans through a customer, public, and system safety performance measure on "Pipeline Safety Enhancement Program (PSEP)– Number of Pipeline Miles Closed out. This metric is weighted at 6% of the 55% safety weighting for SoCalGas's 2019 Executive ICP and 4% of the 35% safety weighting for SoCalGas's 2019 non-executive ICP and is linked to all SoCalGas director level or higher positions.

Observations: There are no metric-specific bias controls listed for this metric beyond annual audits of ICP results. This metric had the same value for the past three years (67%). Progress to make more transmission pipelines accessible to internal inspections leveled off beginning in 2015. SoCalGas provided no explanation as to whether the leveling off was due to engineering or physical limitations of the pipelines, budgetary, or some other reasons.

SoCalGas Metric 14: Employee Serious Injuries and Fatalities ← Lagging ⊕ Injuries



2019 Serious Injuries/ Fatalities

2010-2019 Average Serious Injuries/ Fatalities

METRIC DEFINITION

of employee work-related injuries or illnesses annually that result 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

Bias controls

- Annual Incentive Compensation Plan results are audited by Sempra Energy's Audit Services

Executive compensation

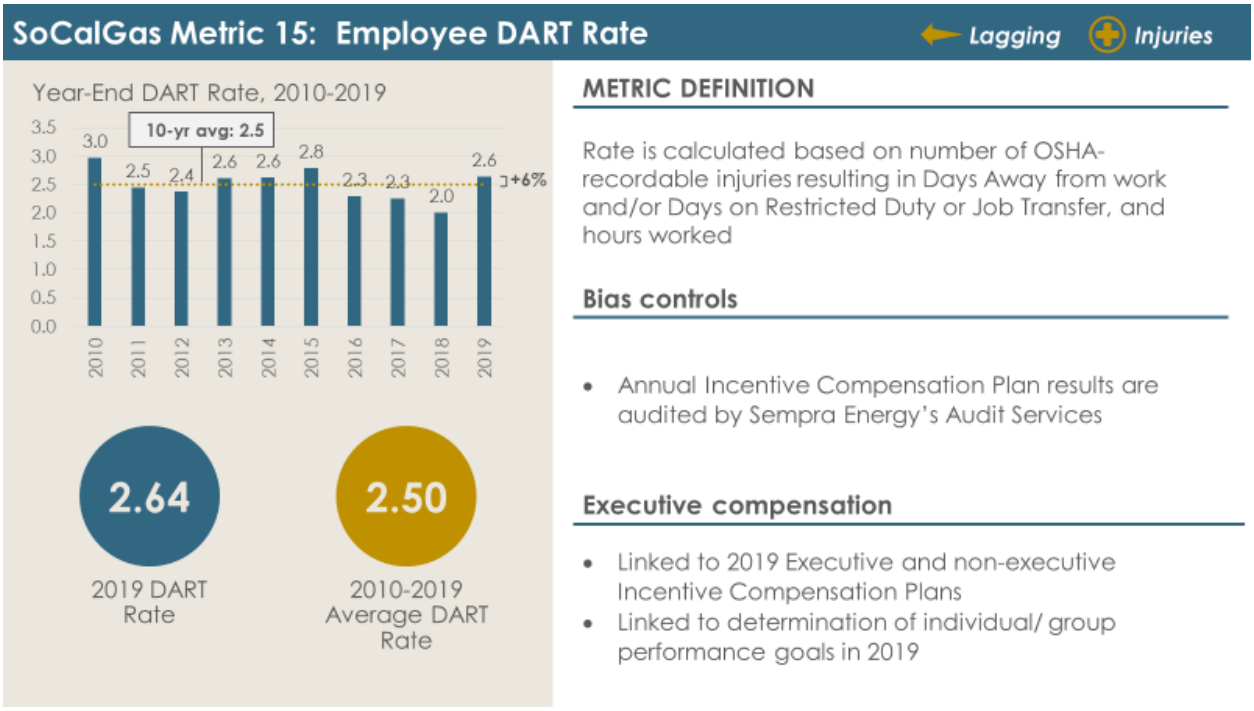
- Linked to 2019 Executive and non-executive Incentive Compensation Plans
- Linked to determination of individual/ group performance goals in 2019

Metric 14 Summary: SoCalGas's Safety Group provides education and training to strive for an incident-free workplace, reviews incidents and shares lessons learned with management, provides safety leadership training to frontline supervisors, and identifies areas for improvement. Additionally, SoCalGas reports that they implements leading indicators to support injury prevention, such as a Safety Barometer Survey that assesses the overall status of their safety climate and identifies areas of potential to help eliminate injuries and improve commitment to safety.

SoCalGas states that this metric is linked to SoCalGas's 2019 Executive and non-executive Compensation Plans through three employee safety related metrics: Lost Time Incident Rate (LTI), ESCMP Corrective Action, and Alert Driving Implementation Completion. These metrics are each weighted at 5% of the 55% safety weighting for SoCalGas's 2019 Executive ICP and 5% of the 35% safety weighting for SoCalGas's 2019 non-executive ICP and is linked to all SoCalGas director level or higher positions.

Observations: While the Lost Time Incident does seem directly linked to the number of serious injuries and fatalities that SoCalGas may observe in a given year, it seems that the ESCMP Corrective Action and Alert Driving Implementation Completion metrics may not have a direct correlation to SoCalGas's performance on Metric 14 in that year. If SoCalGas states that a Safety Performance Metric is linked to executive compensation, the Safety Performance Metrics and the performance measure used for executive compensation should be explicitly related and measure similar figures. SoCalGas does not provide an explanation for the higher-than-average number of serious injuries reported in 2013. There are no metric-specific bias controls listed for this metric beyond annual audits of ICP results.

Due to the small number of serious injury or fatality numbers reported each year, no meaningful trends are observable with the data presented on this metric. For example, the sample mean is 1.4 SIFs, but the standard deviation of the sample is 1.17 SIFs. No reasonable conclusion can be reached as to whether SoCalGas' employee safety record improved or deteriorated over the past ten years because the reported annual employee SIFs are too close to the standard deviation of the samples and no trends are observable. Most variations in any given year can be explained by random statistical variations alone.



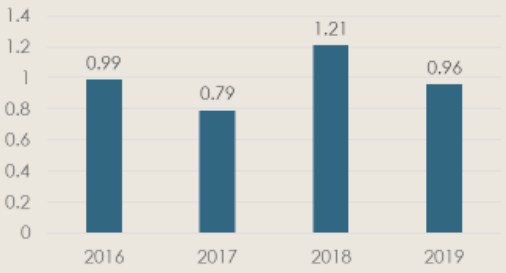
Metric 15 Summary: SoCalGas states that they have had a consistently low DART rate in recent years, but are evaluating initiatives to further reduce its DART rate. They attribute their low rate to strong injury case management and evaluation of initiatives to eliminate or mitigate exposure to workplace hazards.

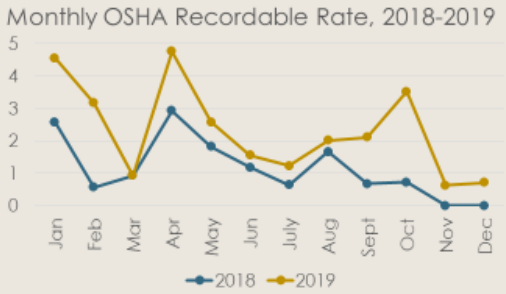
This metric is linked to SoCalGas's 2019 Executive and non-executive Compensation Plans through an employee safety performance measure on "Lost Time Incident Rate (LTI)." This metric is weighted at 5% of the 55% safety weighting for SoCalGas's 2019 Executive ICP and 5% of the 35% safety weighting for SoCalGas's 2019 non-executive ICP and is linked to all SoCalGas director level or higher positions.

Observations: The average DART rate has remained relatively consistent from 2011 through 2019. While SoCalGas states that they have a consistently low DART rate, their rate is higher than SDG&E, SCE, and PG&E's DART rate. There are no metric-specific bias controls listed for this metric beyond annual audits of ICP results.

SoCalGas Metric 18: Contractor OSHA Recordable Rate

Lagging | Injuries





METRIC DEFINITION

Rate is calculated as # of OSHA recordable incidents times 200,000 divided by contractor hours worked, where 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

Bias controls

- No bias controls listed

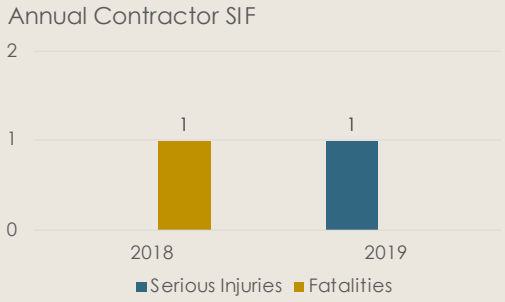
Executive compensation

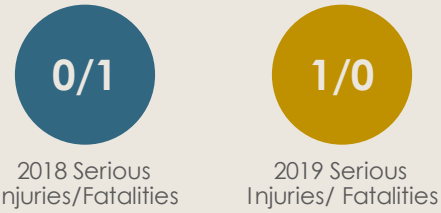
- Not linked to executive compensation
- Not linked to determination of individual/ group performance goals
- Not linked to executive positions

Metric 18 Summary: SoCalGas states that their Contractor Safety Oversight consists of contractor safety program policies and procedures, a Contractor Safety Manual for Class 1 Contractors, field inspections and oversight, post-job safety evaluation, stop-the-job, near-miss and close-call reporting, internal audits, enforcement actions, and a pipeline safety oversight committee. The Contractor Safety Manual consolidates requirements and expectations for contractors, including compliance with applicable laws and regulations, providing a safe working environment for their employees and subcontractors, a process for pre-qualifying contractors for safety, and guidelines for managing safety on construction projects. SoCalGas's third part administration tools pre-qualify, vet, and monitor Class 1 Contractors for safety.

Observations: This metric is not linked to executive compensation or individual or group performance goals and does not have any associated bias controls.

SoCalGas Metric 20: Contractor Serious Injuries and Fatalities ← Lagging ⊕ Injuries





METRIC DEFINITION

of contractor workrelated injuries or illnesses annually that result 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

Bias controls

- No bias controls listed

Executive compensation

- Not linked to executive compensation
- Not linked to determination of individual/ group performance goals
- Not linked to executive positions

Metric 20 Summary: In addition to the contractor safety efforts listed for Metric 18, SoCalGas reports that they engage contractors in an annual Contractor Safety Congress and three quarterly Class 1 contractor meetings. The Contractor Safety Congress allows contractors to share best practices, and SoCalGas to share their safety vision and expectations with contractors. SoCalGas also reports that they require all Class 1 contractors to develop and implement a Stop the Job policy on their projects, which gives authority for everyone onsite to stop a job or task if an unsafe work condition, behavior or activity is identified. Further, they encourage contractors to report near miss or close call or good catch incidents so that employees can learn from these experiences.

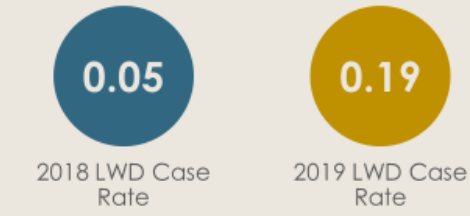
Observations: This metric is not linked to executive compensation or individual or group performance goals and does not have any associated bias controls. Since there were only two years of data provided, it is not possible to assess trends for this metric.

Due to the small number of serious injury or fatality numbers reported each year, no meaningful trends are observable with the data presented on this metric.

SoCalGas Metric 21: Contractor Lost Work Day Case Rate

Lagging | Injuries

Year-end Contractor LWD Case Rate



Monthly Contractor LWD Monthly Case Rate, 2018-2019

METRIC DEFINITION

Rate = # of LWD cases / productive hours worked % 200,000; measures the # of Lost Workday (LWD) cases incurred for contractors per 200,000 hours worked, where a Lost Workday Case is a current year OSHA Recordable incident that has resulted in at least one lost workday

Bias controls

- No bias controls listed

Executive compensation

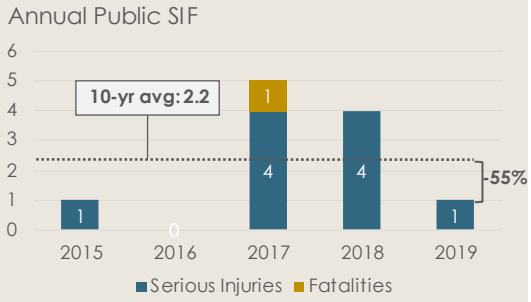
- Not linked to executive compensation
- Not linked to determination of individual/ group performance goals
- Not linked to executive positions

Metric 21 Summary: SoCalGas describes their efforts to reduce Class 1 contractor safety incidents while conducting work on behalf of SoCalGas in the narrative Description for Metric 18 and 20. This includes including contractor safety pre-qualification, oversight, pre-work safety meetings, and other efforts.

Observations: This metric is not linked to executive compensation or individual or group performance goals and does not have any associated bias controls. Since there were only two years of data provided, additional years of data will be needed to assess trends for this metric.

SoCalGas Metric 22: Public Serious Injuries and Fatalities

Lagging | Injuries



2019 SAF

2015-2019 Average SAF

METRIC DEFINITION

of public work-related injuries or illnesses annually that result 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

Bias controls

- Annual Incentive Compensation Plan results are audited by Sempra Energy's Audit Services

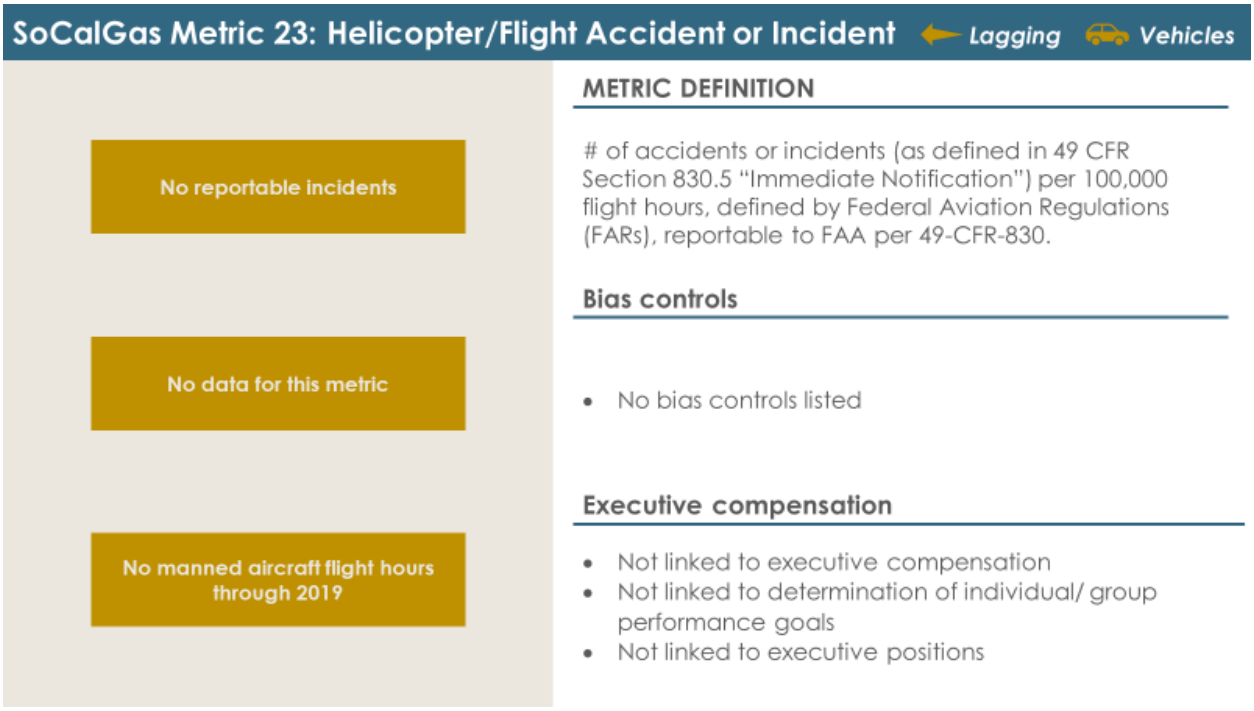
Executive compensation

- Linked to 2019 Executive and non-executive Incentive Compensation Plans
- Linked to determination of individual/ group performance goals in 2019

Metric 22 Summary: SoCalGas implements communication with the public to promote safety on a variety of topics including gas line locations and safe practices, how to dig safely on their property, how to keep themselves safe around company facilities that become damaged during an event, and how to detect possible safety issues within their home. They address safety concerns through public communication and awareness campaigns, emergency response programs, and safety programs and practices. Using the subcategories designated by SED, SoCalGas had one 2019 Public SIF incident, a serious injury in the subcategory of a gas incident – excavation damage ("dig ins").

SoCalGas states that this metric is linked to SoCalGas's 2019 Executive and non-executive Compensation Plans through five customer, public, and system safety performance goals: A1 Order Response Time, Pipeline Safety Enhancement Program, Damage Prevention, DIMP Vintage Integrity Program, and Storage Integrity Management Program. These metrics are each weighted at 6% of the 55% safety weighting for SoCalGas's 2019 Executive ICP and 4% of the 35% safety weighting for SoCalGas's 2019 non-executive ICP and is linked to all SoCalGas director level or higher positions.

Observations: While these ICP performance goals may affect SIF data, these measures do not seem to necessarily correlate to the number of public serious injuries and fatalities in a given year. If SoCalGas states that a Safety Performance Metric is linked to executive compensation, the Safety Performance Metric and the performance measure used for executive compensation should be explicitly related and measure similar figures. There are no metric-specific bias controls listed for this metric beyond annual audits of ICP results.



Metric 23 Summary: SoCalGas states that they have performed minimal unmanned aircraft flight hours to date and they have not performed manned aircraft flight hours through 2019. Because of this, SoCalGas has no reportable incidents and no data for this metric. This metric is not linked to executive compensation or individual or group performance goals and does not have any associated bias controls.

Observations: The data reported for this metric is incomplete because SoCalGas has performed little unmanned aircraft flight hours to date. If SoCalGas does not expect to perform unmanned aircraft flight hours in the future, should they be required to report data on this metric?

V. Conclusion & Recommendations

In their first Safety Performance Metric Report, SoCalGas followed requirements from D.19-04-02. SoCalGas provides helpful context for each metric beyond what was required in the Decision, and for several metrics, they describe recent initiatives to improve data collection for each metric as well as metric performance. This information will help the CPUC track and evaluate how SoCalGas's use of Safety Performance Metrics evolves over time, especially as they collect data for metrics they have only recently started tracking in the last few years.

In future reports, SoCalGas may consider the following:

- State which executive-level positions are covered by the Executive ICP and which are covered by the non-executive ICP, and the number of executive positions that are affected.
- In the narrative context for metrics, provide information on whether performance for that metric was above or below the historic average, and if possible, provide context to explain performance in the most recent year. SoCalGas should also provide context on potential risk drivers for the metric.
- Include metric-specific bias controls for metrics where possible, in addition to the general statement that executive incentives can be audited by Sempra Audit Services.
- If claiming that a SPM is linked to executive incentives, ensure that there is a direct and explicit link between the Safety Performance Metric and the related measure used in the ICP (for example, Metric 14 and Metric 22 did not seem directly correlated to the ICP measures that were listed).
- There was significant overlap between the responses and examples provided for SDG&E and SoCalGas, which is expected given that they are both Sempra utilities; however, SoCalGas should ensure that the information they provide is SoCalGas-specific.

The CPUC will meet with SoCalGas to better understand these issues and other gaps in the metric information they reported, which were noted throughout this document.

CPUC is considering the development of Safety and Operational Metrics as part of the S-MAP proceeding (R.20-07-013) that could supersede these Safety Performance Metrics. Such a framework could include requiring utilities to compare their metrics to short and long-term trends and requiring utilities to set targets for metrics where appropriate.

Finally, some metrics such as SIFs would be more useful for comparison and contextual purposes if they were expressed as rates rather than raw numbers. For example, SoCalGas's employee SIFs are not comparable to PG&E's SIFs because SoCalGas has substantially fewer employees and thus lower exposure. It is also important to note that for SIFs, it is not possible at this point to draw conclusions about trends or predict future year SIFs based on reportable data because the population of incidents relative to exposure is so small. It will take several years to discern meaningful patterns this type of low populations metric.