RAMP Data Collection

(RAMP-E)

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Data Collection

1. Introduction

This chapter describes the data relevant to risk mitigation that SoCal Gas and SDG&E collect and areas where the Companies will be augmenting current practices. In Decision 14-12-025, the Commission identified the need for RAMP filings to include information regarding the utilities' steps to "improve the collection of data and provide a timeframe for improvement" for business areas with less data, so that "the utilities can position themselves to make major improvements in risk assessment" for later S-MAP filings.[1] As the Commission has recognized, having historic data available regarding the effectiveness of mitigations and the performance of assets will enhance the management and modelling of risks.

SoCalGas and SDG&E have gathered data on the performance of their systems for many years. For example, SDG&E has an extensive database of electric cable performance; similarly, SoCalGas has PHMSA failure data for incidents within the pipeline industry. In addition to using various internal systems to accumulate data on assets' performance over time, both SDG&E and SoCalGas collaborate with manufacturers, consultants, and various industry consortiums to enhance data collection and analysis. Data from these sources, in concert with subject matter expertise, was used to develop probabilistic risk models (e.g., for assessing wildfires) to support the RAMP.

SDG&E and SoCalGas plan to continue current data collection practices and add to or extend these efforts in several ways to support their risk management processes. For example, the technical working group formed as part of SMAP has been discussing potential metrics that can be used as part of the Accountability Reports. The planned initiatives to improve data collection will support the development and tracking of these measures to monitor risk levels. Below are some examples of data collection improvement efforts for selected risks within the three risk types[2] – electric, gas and cross cutting.

2. Electric

Electric Infrastructure Integrity

SDG&E has been addressing the need for data to determine the affect climate change may have on the integrity of its electric infrastructure. Specifically, current climate science is indicating that the extreme risk scenarios that SDG&E has operated to in the past are changing, and will continue to change in the years and decades to come. The most recent science and vulnerability assessments completed by SDG&E are indicating that climate change will expose the SDG&E electric system to, among other threats, the following:

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1 D.16-08-018 at 152.

2 The types of risks included within the RAMP.

- Increase in wildfire activity across Southern California;
- Expansion of high fire risk to coastal canyons/wildland interfaces;
- Increased susceptibility of low-lying substations due to sea level rise; and
- Increase in peak demand for electricity.

In addition to increasing efforts to access data for monitoring the effects of climate change on the integrity of the electric infrastructure, SDG&E is continuing to improve the information available regarding asset performance. For example, extracting data embedded in other records to improve usability. As SDG&E continues to refine its focus on asset classes this information will, at some point in the future, be linked to specific assets. This will make the data available for additional probabilistic analysis.

Construction Quality Assurance/Quality Control

SDG&E's Electric Infrastructure Integrity Risk chapter in its RAMP report discusses a proposed Post-Construction True-Up Quality Assurance and Quality Control (QA/QC) program which provides dedicated personnel, activities, and tools to proactively identify and correct pole loading issues by way of activities including data analytics, engineering, training, and validation or improvement of construction standards and work methods. The proposed program would supplement existing efforts by steadily improving construction quality and placing greater emphasis (identification and timeliness of mitigation) on field follow-up for poles with high risk of failure. *The program would implement additional routine inspections to capture data to further evaluate whether poles meet safety standards.* Upon the discovery of potentially unsafe conditions, timely reinforcements or replacements would enhance risk reduction and safety.

Condition-Based Maintenance

SDG&E is also proposing to expand its Condition Based Maintenance (CBM) infrastructure to include Transmission and Substation Battery assets. These programs will enable *data gathering in order to better understand critical infrastructure integrity by predicting future failures and understanding how to develop and maintain best safety practices when operating these devices*. These systems also enable timely maintenance practices to better ensure asset health.

3. Gas

Catastrophic Damage involving Gas Infrastructure (Dig-Ins)

Gas Infrastructure Dig-Ins involving third parties can have serious safety consequences. SoCalGas has collected data on the cause of third party dig-ins. For example, SoCalGas is aware that sixty percent of dig-ins occur when the third party fails to notify SoCalGas by calling 811. Using this data, SoCalGas has put in place risk mitigations to address both third-party actions and internal practices. SoCalGas plans to continue to collect data on dig-ins including determining historic trend information for individual contractor failure to call 811 or compliance with regulations. The actions and timeline to implement further data collection are:

- Collect specific contractor data connected to dig-in data by end of 2018.
- Enhance collection of detailed damage collection data by end of 2018.

- Evaluate effectiveness of corrective actions taken post incident by end of 2019.
- Improve locate and mark reporting by end of 2019.
- Add GIS tagged dig-in data by end of 2019.

4. Cross-Cutting

Workforce Planning

SoCalGas has identified the risk of not having an appropriate workforce with the right skills to meet the business needs due to acceleration of workforce attrition and changing business needs. To evaluate this risk, SoCalGas has collected data through benchmark analysis (e.g., eligibility of SoCalGas employees for retirement), third-party data (e.g., Department of Labor statistics on millennials) and company data (e.g., mobility and promotion data). The data collected has been used to develop workforce planning risk mitigations. SoCalGas' Organizational Effectiveness and Human Resources Services organization will continue to collect data in collaboration with other SoCalGas units to improve the risk analysis for Workforce Planning. Examples of enhanced data collection include:

- Implications and effectiveness of succession planning and knowledge transfer on attrition;
- Emerging new roles related to new business needs and the effectiveness of mobility and promotion practices on filling the roles; and
- Effectiveness of training to counteract employee attrition.

All of these data collection efforts will be aligned with the implementation of the mitigations discussed in the proposed risk mitigation plans described in the risk chapters.

Since data collection is specific to individual risks and/or departments, a timeline for improvement will occur over the next two to four years. SDG&E and SoCalGas will continue to work with the Safety Enforcement Division and parties in the SMAP proceeding to develop a plan to improve data collection efforts.[3]

[3] D.16-08-018, OP 11, pp. 196-97.