

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

Order Instituting Investigation and Order to
Show Cause on the Commission's Own
Motion into the Operations and Practices of
Pacific Gas and Electric Company with
Respect to Locate and Mark Practices and
Related Matters.

**I.18-12-007
(Issued December 14, 2018)**

**PACIFIC GAS AND ELECTRIC COMPANY'S
90-DAY REPORT AND
RESPONSE TO LOCATE AND MARK OII DIRECTIVES 1 TO 9**

**[PUBLIC VERSION – Redacted Confidential Material Contained in Appendix E
and Designated Exhibits]**

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**PACIFIC GAS AND ELECTRIC COMPANY'S
90-DAY REPORT AND RESPONSE TO LOCATE AND MARK OII DIRECTIVES 1 to 9**

Safety is PG&E's most important responsibility, and over the period at issue in this proceeding, PG&E's overall Damage Prevention program became more effective and safer. That is factual and verifiable. PG&E acknowledges, however, that this proceeding addresses instances in which certain information that PG&E maintained relating to its safety efforts was demonstrably inaccurate, and conduct that fell short of the high standards of integrity and the ethical action to which the Company is committed. PG&E takes the problems raised by the California Public Utilities Commission very seriously, and has worked hard to correct them since senior leadership learned in March 2017 that the problems had persisted despite previous attempts to address them.

This Report provides the initial response of Pacific Gas and Electric Company (PG&E or the Company) to the California Public Utilities Commission's (CPUC's or the Commission's) Safety and Enforcement Division (SED) Investigative Report into the Operations and Practices of PG&E's Damage Prevention and Locate & Mark Programs (SED Report), responds to the directives contained in Part V.B of the Order Instituting Investigation and Order to Show Cause (OII or I.18-12-007), and addresses the alleged violations of law with respect to PG&E's locate and mark (L&M) practices. This Report provides an initial overview of the evidence that PG&E expects to present during this proceeding.

I. Introduction

A. Summary of the Issues

The Commission's OII involves data that PG&E maintained from 2012 to 2017 (the period at issue) regarding the timeliness with which PG&E responded to 811 notifications. In the Underground Service Alert (USA) 811 system, owners of underground facilities like PG&E

are notified when an excavator reports plans to dig at a particular location. State law then provides that, unless the timeline is extended, facility owners like PG&E generally must mark their facilities within two working days (or before the excavator's start time, if that time is more than two days away).¹

Responding to those excavation notifications, or "tickets," in a timely manner is complex, due both to the nature of the work and the number of tickets; during the relevant period, PG&E processed over 4.6 million tickets.² Timely responses to tickets are important, however, because a failure to mark facilities increases the risk of a "dig-in,"³ and because late responses can discourage excavators from calling 811 in the future. The SED Report describes inaccuracies in PG&E's data regarding the timeliness of its responses to certain of those tickets. Some of the inappropriate conduct the SED Report describes was intended to make tickets that were clearly late appear as timely.

Without question, such conduct was unacceptable and was not, and is not, condoned by PG&E or its leadership. PG&E recognizes that gaps in culture, organization, and systems, among other things, contributed to an environment in which problems in PG&E's late ticket data arose. PG&E has been and continues to be on a mission to improve its safety and compliance and ethics culture and to foster a non-retaliatory environment⁴ where all employees can

¹ See Cal. Gov't Code §§ 4216.2(b), 4216.3(a)(1) (2019). Senate Bill 661, enacted in September 2016, significantly amended Government Code § 4216 *et seq.*, with those amendments becoming effective on January 1, 2017. For purposes of this Report, references to the Government Code are to the currently effective statutory provisions unless otherwise noted.

² Federal law recognizes that late tickets will occur from time to time. 49 C.F.R. § 192.614(c)(5) (recognizing that a proper Damage Prevention program aims to mark underground facilities "before, as far as practical, the activity begins" (emphasis added)).

³ A dig-in is an event that results in a need to repair or replace an underground gas facility due to an excavation.

⁴ Ex. 1 at 26. In 2018, PG&E updated its Code of Conduct from a previous version which had been in effect since 2013, cited later in this Report.

confidently and safely speak up, and where leaders are consistently listening to and following up on issues raised by employees. PG&E is steadfastly committed to this important work.

PG&E will demonstrate in this proceeding that a full assessment of the facts, however, presents a different picture than the one portrayed in the SED Report, which paints with too broad a brush. What the SED Report lumps together as “false records” or “false notes” encompassed, in reality, a variety of conduct—including instances in which the information PG&E employees recorded was completely accurate. Information that the SED Report describes as common knowledge may have been well-known in some circles but not in others. And the Damage Prevention program that SED claims had completely broken down in fact showed significant progress during this period, when measured by the most relevant metrics. The facts here require more context than the SED Report provided.

When the underlying facts are carefully reviewed, and a full record is developed in this proceeding, three points will become clear.

First, PG&E’s Gas Operations in general, and its Damage Prevention and L&M programs in particular, became safer during the period at issue. To be clear, late responses to 811 calls create a safety issue. The nature of that safety issue is described further herein,⁵ and PG&E continues to work to identify dig-ins during the period at issue to which its late response to an 811 call likely contributed. This work of identifying dig-ins associated with late tickets, or to which a late ticket likely contributed, is important for two reasons.

First, it is important because PG&E believes that every dig-in is a cause for concern, creates a risk of harm, and deserves a focused review to determine how the dig-in happened and what can be done to prevent future dig-ins. The total elimination of dig-ins may be unrealistic

⁵ See Part II.B.3.

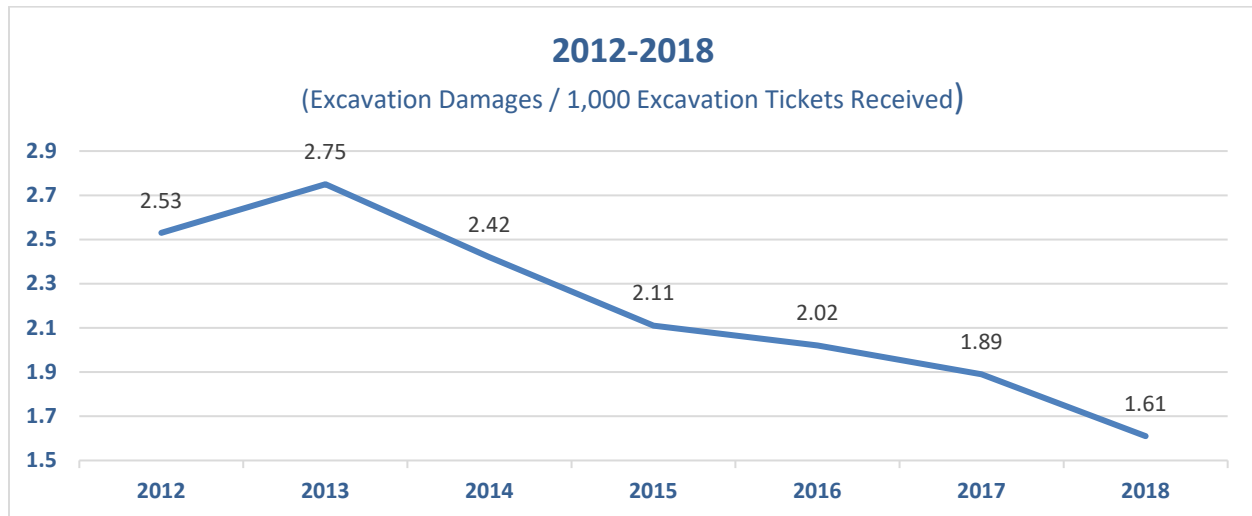
and outside of PG&E’s ability to control—there were over 300,000 nationwide last year, across the industry⁶—but PG&E takes each one seriously.

Second, identifying dig-ins that a late response likely contributed to is also important because it highlights the key goal of Damage Prevention: preventing dig-ins. The “dig-in rate,” or dig-ins per thousand tickets, is viewed in the industry as the most important safety metric in this area because it is not late tickets, but dig-ins that ultimately can harm people and property. Accordingly, PG&E and other utilities focus on strategies that, taken together, reduce the dig-in rate. While timely responses to 811 tickets are important, data show that late responses are not a significant driver of dig-ins, industrywide or at PG&E.

Here, those strategies to reduce late tickets—notwithstanding late tickets, and problems in PG&E’s late ticket data prior to corrective actions it began implementing in 2017—have shown significant positive results. Over the period covered by the OII, PG&E’s dig-in rate steadily improved for five straight years: PG&E experienced 2.75 dig-ins per thousand tickets in 2013; by the end of 2017, the dig-in rate had dropped to 1.89. By 2018, it had fallen to 1.61 dig-ins per thousand, a decline of *more than 40%* in five years. These improvements are not in dispute, and are unaffected by any problems with late ticket data.

⁶ See Part II.B.3.

Figure 1.⁷ PG&E's Declining Dig-In Rate



The evidence in this proceeding will show that this overall improvement in safety was not by chance, but was the result of concerted efforts across PG&E's Gas Operations organization. Under the new Gas Operations leadership that arrived in 2011 and 2012, PG&E has invested more than \$3.2 billion in shareholder funds to improve its overall gas pipeline safety generally. PG&E developed overarching Damage Prevention strategies; actively and systematically encouraged excavators to call 811; reorganized the Company's L&M operation into a single team focused exclusively on locating and marking; hired staff, both long-term permanent employees and shorter-term contractors, to assist with "surge" periods; developed new handbooks and procedures; and audited its Damage Prevention and L&M processes—and then closed out problematic issues that PG&E's Internal Audit team identified.

The steady and important decline in PG&E's dig-in rate was thus the product of strategic planning, hard work, and substantial investment. That problems with the L&M late ticket data persisted over much of this period is unacceptable to PG&E for a number of managerial and

⁷ See SED Report Attachment 65 at SED-02477.

cultural reasons. But the relationship between late tickets—or *late ticket data*—and safety should be assessed with clarity.

Second, the problems arose not because PG&E encouraged wrongdoing, but rather as unintended consequences stemming from PG&E's focus on reducing dig-ins. This is not a case of corporate leadership directing some actions to mislead the government or put financial metrics over safety. Far from it. As the evidence will demonstrate, improper conduct described in the SED Report, while in part driven by a message from an L&M director no longer with the Company, violated specific PG&E policies and training. When, as the SED Report describes, PG&E employees attempted to “negotiate” new deadlines simply by leaving a voicemail, without actually reaching a mutual agreement with anyone, they violated express PG&E prohibitions on using voicemail in that manner. Likewise, the SED Report’s description of efforts that undermined the reliability of Company records describes conduct that clearly contravened the PG&E Code of Conduct. Indeed, and as the evidence will demonstrate, the conduct at issue was completely counterproductive from the Company’s perspective. This is because the data that the SED Report describes as being manipulated were primarily used by PG&E to allocate internal resources and determine where additional staffing was needed. Employees who may have felt stretched thin, and who responded by using improper means to make their performance look better than it actually was, made it *more difficult* to bring necessary resources to bear to help them meet the law’s requirements. Making late tickets look timely made it appear as though the L&M team had enough resources and did not need additional staffing.

Further, the facts will show that the conduct was in many ways an unintended consequence of internal pressures that reflected PG&E’s commitment to improving safety and

compliance. One set of pressures arose out of the significant increase in the volume of 811 tickets that PG&E had to mark during this period. The increasing ticket volume was not some fluke. Rather, it was a direct consequence of a key component of PG&E's Damage Prevention strategy: reducing dig-ins by making significant efforts to encourage excavators to call 811 before they dig, and thus give PG&E (and other facility owners) the opportunity to mark their facilities. Excavators' failure to call 811 was, and remains, the leading cause of third-party dig-ins to PG&E's facilities. PG&E's focus on preventing dig-ins contributed to the increase in ticket volume that led some locators to take inappropriate steps that were inconsistent with PG&E's policies and procedures.

Some locators also made inappropriate choices due to a "drive to zero" directive regarding the Company's late ticket numbers. The motivation behind that directive was straightforward: California law provides that ticket responses must occur within a specified time, and employees correctly focused on full compliance with the law. But pro-compliance messages, when delivered improperly or in an unbalanced manner, can backfire. That is what happened here, as the "drive to zero" led some employees to shift their focus from proper L&M practices to treating "zero late tickets" as the single, defining metric to be achieved. L&M managers could have and should have been clearer in communicating that while zero was the *goal*, it was not a goal to be achieved at any cost. But the goal itself—reducing late tickets—was appropriate and consistent with the law.

Third, since March 2017, PG&E has demonstrated the strong culture of responsibility that the Company has been working hard to implement. As the SED Report describes, signs of problems with PG&E's late ticket data were apparent at a number of points during the period at issue, and PG&E took a variety of steps, ultimately insufficient, to address the problems. When

PG&E senior leadership was informed during a March 2017 peer review by industry representatives that broad late ticket data problems once thought resolved were ongoing, and that previous efforts had been unsuccessful, the Company took action.

Within days of the peer review, PG&E began investigating the finding. To focus attention and resources on the issue quickly, Gas Operations Senior Leadership convened a “Special Attention Review” (SAR), pulling together subject-matter experts and resources from across the Gas Operations organization, to develop a solution to the late ticket data issue. To better understand what had happened, PG&E retained a third-party investigative firm, Guidepost Solutions LLC (Guidepost), and gave it unfettered access to documents and employees as it conducted an investigation and prepared an independent report on what had occurred—and PG&E committed to giving Guidepost’s report to both SED and the Monitor appointed by the U.S. District Court for the Northern District of California. To assess the full potential scope of the problem, PG&E also retained an economic consulting firm, Bates White LLC (Bates White), to develop a more inclusive methodology for determining which tickets in PG&E’s ticket-management database should be counted as late—and again, PG&E freely provided the results to SED and the Monitor. And PG&E took personnel actions that held the relevant managerial employees accountable.

PG&E also brought both SED and the Monitor into the Guidepost investigation of the late ticket data issue, inviting them to attend and participate in employee interviews, providing them with internal PG&E documents, and briefing them formally and informally on the processes and findings. In fact, SED’s attorney agreed that PG&E was “voluntarily cooperating in every respect” with the investigation.⁸

⁸ SED Report Attachment 13 at SED-00217, lines 7-12 (Gruen, SED).

PG&E believes that this kind of accountability and transparency—that treating SED, the Monitor, and others as partners with the shared goal of making PG&E a safer company—will indeed make PG&E better and safer. The results of this process, which began in 2017, are now reflected in a Compliance Plan that sets out 30 corrective actions across five core areas. The corrective actions range from cultural steps to be taken by PG&E leadership in support of strengthening the organization’s “Speak Up, Listen Up, Follow Up” culture, to process improvements, to information-technology fixes. PG&E provided SED with its draft Compliance Plan in August 2018 as the Company was developing it, and sought SED’s feedback. PG&E’s goal is to continually become a better and safer company, and we welcome any input that will help us toward that goal.

* * *

When the full universe of facts is presented in this proceeding—when the incidents that SED describes are placed in the context of how they were viewed at the time, when the nature of the conduct is properly understood, and when the corrective steps PG&E took prior to the OII are recognized—a different, more complete story will emerge than the one the SED Report presents. PG&E does not deny that the SED Report describes conduct that has no place at PG&E. But the actual nature of that conduct, its causes, and its consequences must be properly understood.

To date, SED has conducted Examinations Under Oath (EUOs) of current and former PG&E employees, managers, and leaders; has benefited from third-party analyses; and has received scores of data responses and thousands of pages of documents. Currently, a stay has been placed on PG&E’s ability to conduct discovery to more fully understand the information gathered by SED, especially information that was not included in the SED Report. Discovery and further factual development will likely produce additional relevant evidence for the

Administrative Law Judge and the Commission to consider. PG&E looks forward to being able to conduct discovery, to further develop the record, and to present expert testimony. At this time, PG&E respectfully submits this initial response to the SED Report and the directives in the OII.⁹

B. Overview of PG&E's 90-Day Report

To provide context that is absent from the SED Report and is critical to making the fully informed and reasoned determinations that will be necessary in this proceeding, Parts I to III of this Report present an overview of what happened during the period at issue—in PG&E's Gas Operations organization generally, in its Damage Prevention and L&M programs, and with respect to late tickets and late ticket data in particular. Understanding the complete story is important to understanding how and why PG&E took the actions that it did. In Part IV, PG&E lays out several key contentions that should inform any final decision in this case.

Building on the information provided in Parts I to IV, Part V provides PG&E's responses to the nine directives contained in the OII. Specifically:

- Part V.A addresses Directives 1 to 4 and identifies factual statements and conclusions in the SED Report, the Guidepost Report, and the Bates White Report that PG&E contends are incorrect. In particular, Part V.A provides important corrections or additional context to several key statements or themes that appear in one or more of those reports. It also refers to appendices that identify additional statements in those Reports that require correction or additional context, but may be less thematic than those described in detail in Part V.A.¹⁰
- Part V.B discusses the information requested in Directives 5 and 6 regarding employee performance and pay information, with underlying data responsive to those directives being made available for review.

⁹ See OII at 11-12.

¹⁰ See Appendices C and D.

- Part V.C provides, with cross-references to relevant portions of Parts I to IV, the explanations requested by Directive 7 for the problems identified in the SED Report, the Guidepost Report, and the Bates White Report.
- Part V.D, also with cross-references to relevant portions of Parts I to IV and as requested by Directive 8, discusses the Compliance Plan that reflects the corrective actions PG&E has implemented and continues to implement regarding the late ticket undercounting issues. The Compliance Plan, which has been updated since provided to SED on January 14 as required by the OII, is attached as Appendix B to this Report.
- Finally, Part V.E provides the witness list requested by Directive 9.

Parts VI and VII lay out the legal standards and requirements, and considerations relevant to imposing civil penalties and equitable relief.

Appendix A of this Report contains a brief chronology of events.¹¹

II. Background

In assessing PG&E's actions with respect to the late ticket data that is at issue in this proceeding, it is important to understand the full context in which those actions occurred. That is, to understand how PG&E interpreted changes in its late ticket counts during the 2012 to 2017 period, it is helpful to understand the efforts that PG&E was undertaking to make the Company safer. And to understand the manner in which PG&E allocated its L&M resources during this time, it will be helpful to understand how PG&E allocated its safety resources more generally. Accordingly, Part II.A provides an overview of PG&E's overall gas safety initiatives during the OII period. Part II.B describes PG&E's efforts to improve its L&M and Damage Prevention operations specifically.

¹¹ See Appendix A.

A. Gas Organization Context Since the San Bruno Explosion

The OII in this matter expressed the Commission’s expectation that, after the 2010 San Bruno tragedy, “caused by multiple proven violations of law, PG&E [sh]ould have sought to vigorously enhance and increase its effectiveness in all aspects of its gas safety.”¹² PG&E agrees, and since that time has embarked on an effort, from the top of the Company to those in the field, to become the safest gas utility in the country. Through its words and its actions, and in collaboration with government regulators and third-party subject-matter experts, PG&E worked hard to make system improvements and institute procedures reflecting this commitment.

Much of this work was cultural, with significant efforts since the 2010 San Bruno tragedy to imbue—not just in its gas business, but enterprise-wide—a culture of ethics, beyond compliance, safety, and responsibility. The Company’s efforts to build a “Speak Up, Listen Up, Follow Up” culture were intended to ensure that employees were encouraged to speak up and identify concerns, that Company leaders took those concerns seriously, and that all were accountable for making sure that problems—particularly safety problems—got fixed. PG&E aimed not just to solve the problem of the day, but to foster a culture that would rigorously identify and prevent problems before they occur.

During this same period, PG&E invested significant efforts directly in making its gas operation safer. These investments are important to understanding the events at issue in the OII for at least two reasons. First, PG&E expects there will be questions about whether the decline in late tickets during this period was so pronounced that PG&E leadership should have been immediately skeptical. Understanding all the other work that PG&E had undertaken to make its gas operation safer will put the Company’s handling of that information in context. Second,

¹² See OII at 2.

PG&E expects there will be questions about whether the Company leadership was prepared to invest in L&M resources to the extent needed. Understanding PG&E's investments in other gas safety and compliance initiatives will be relevant to answering those questions, as well.

PG&E has made substantial improvements in gas pipeline safety since the tragedy in San Bruno, including spending more than \$3.2 billion of shareholder funds toward these efforts. Among the safety improvements are a comprehensive survey of the centerline of PG&E's entire natural-gas transmission pipeline system; the building of a state-of-the-art, integrated gas transmission and distribution control-and-dispatch center that gives the Company real-time data and improved control over its thousands of miles of pipeline; and a revised compensation program that bases an industry-leading 50% of employees' short-term incentive compensation on safety metrics.

In addition to improvements in these areas, PG&E invested—both financially and institutionally—in four specific areas to make its Gas Operations safer: (1) reliance on independent evaluations and third-party certifications to achieve objective, best-in-class practices, (2) a records management program to provide better access to information needed to make gas safety decisions, (3) increased investment in physical infrastructure and equipment, and (4) improved employee and contractor training. What follows are just a few examples of PG&E's efforts in these four areas.

1. Independent Certifications and Reviews

PG&E has made a deliberate effort to reorganize and bring new perspectives into the Company from across the industry. The changes have started at the top, with new experienced gas operations personnel in key leadership posts who have come from outside the Company.

To assist it in developing best-in-class standards, PG&E made a deliberate effort during the OII period to bring in third-party, independent input, reviews, and certifications of key safety

and risk management processes. PG&E designed its Gas Safety Excellence Program to improve safety and manage risk by applying internationally recognized best-practices standards to each of three pillars: Safety Culture, Process Safety, and Asset Management.

Safety Culture represents the alignment of human performance with organizational strategy. A workforce that is convinced it has the full support of its leaders on safety matters will do the right thing, in the right way, at the right time, even when no one is looking. Accordingly, PG&E has worked to nurture a culture based on trust, in which employees feel comfortable speaking up, stopping jobs when concerns arise, sharing incidents or near hits, and learning from one another. To demonstrate its commitment to nurturing a robust safety culture, PG&E adopted and implemented the American Petroleum Institute's (API) Recommended Practice (RP) 1173, Pipeline Safety Management System Requirements. PG&E was the first company ever assessed as in compliance with the requirements of API RP 1173, and its safety-oriented culture requirements, by an independent third-party auditor.

Process Safety is based on the idea that safety systems and processes are managed by layers of protection “surrounding” them, so that the natural gas is always contained even if a layer of protection fails. PG&E's Process Safety Management system is used for engineering and construction of facilities, operations and maintenance of equipment, and ensuring safe operations. PG&E's commitment in implementing process safety led to it obtaining a chemical industry standard RC 14001 (Responsible Care and International Standards Organization 14001) certification, with its process safety requirements, making it the first utility in the world to attain this standard.

Asset Management is the system by which PG&E understands the gas infrastructure, understands the threats that the infrastructure faces, and addresses the inherent risks and hazards

associated with operating a linear-asset system that passes through populated areas and a wide variety of terrain. In May 2014, PG&E became the first utility in the United States, and one of the first companies in the world, to hold certifications under both Publicly Available Specification 55 (PAS 55) and the International Organization for Standardization (ISO) 55001 standard. Certification under PAS 55 was granted by Lloyd's Register Quality Assurance, a global accrediting organization, after more than 150 interviews and extensive audits of numerous critical areas of asset management. This certification is internationally recognized as a best-in-class practice for asset-heavy industries. As a holder of both the PAS 55 and ISO 55001 asset-management certifications, PG&E's risk management practices, while continuing to evolve, make the Company "clearly a utility industry leader," as SED's Risk Assessment Section recognized in a 2016 report.¹³

2. Records Management

PG&E also made major investments during this period in the *records* that are necessary to make informed safety-related judgments. The work has been particularly intensive on the gas transmission side, where PG&E retrieved and scanned more than 1.2 million paper documents associated with its natural-gas pipeline system, and consolidated and digitized more than 12 million pages of gas service records, so that operational decisions would be based on traceable, verifiable, and complete records. PG&E also made substantial investments in its gas distribution records, implementing innovative records management activities that third-party experts retained by the Commission have called best practices.¹⁴ PG&E scanned millions of gas distribution

¹³ Safety and Enforcement Division Risk Assessment Section, *Staff Report: Pacific Gas & Electric Co. 2017–2019 General Rate Case Application A.15-09-001*, at 9 (Mar. 7, 2016).

¹⁴ See P Wood Associates, *Investigation of PG&E Distribution System Recordkeeping in Support of OII.14.11-008* at 61-66 & table 9 (Sept. 30, 2015).

service records and made them viewable in a Company geospatial information system, and has undertaken a similar and ongoing initiative for its distribution main as-built records. As with other Gas Operations initiatives, PG&E's records management approach was driven by compliance with independent standards, in this case ARMA International's Information Governance Maturity Model.

3. Physical Infrastructure and Equipment

PG&E has invested billions of dollars to proactively replace, upgrade, and maintain aging gas pipelines and related components. Among other investments, in 2012, PG&E commenced a program to replace pre-1985 Aldyl-A plastic (and similar plastic) distribution pipe, which can become brittle over time. PG&E has replaced more than 410 miles of this plastic pipeline, at a cost of more than \$1.08 billion.

PG&E also invested in improving gas-leak detection methods and reducing repair time. For example, PG&E has been an industry leader in implementing a system whereby a member of the Gas Crew drives slowly through neighborhoods as the car-mounted Picarro Surveyor, a leak-detection device that is 1,000 times more sensitive to airborne gas than traditional technologies, sweeps for trace gas molecules, measures wind velocity and other factors, and helps pinpoint the location of gas leaks. Compared to older methods, PG&E can now identify up to 80% more leaks and then repair them in less than half the total time.

4. Training

Over the past eight years, PG&E has made a number of improvements to its Learning Academy, a centralized organization responsible for training and development. For example, the Company has built a state-of-the-art training center in Winters, California, which provides hands-on training in a variety of gas activities, including leak detection, construction methods including welding, and operating and maintaining instrumentation and regulation equipment.

* * *

PG&E’s efforts in these four areas—the independent certifications, records management, physical infrastructure modernization, and training—and other areas have produced significant results:

- Since 2011, PG&E replaced more than 265 miles of gas transmission pipeline, strength-tested more than 1,380 miles, and made more than 1,070 miles “piggable” (that is, capable of accepting an in-line inspection tool).
- In 2010, PG&E had zero automated shut-off valves to accelerate emergency response in the event of a gas transmission pipeline rupture. By the end of 2018, it had 337.
- In 2010, PG&E’s average gas-odor emergency response time was 33.3 minutes. In 2018, that time had been reduced to 20.6 minutes.
- And in 2010, 5.6% of PG&E’s gas-odor emergency responses took longer than one hour. That figure has now fallen to 0.4%—a 92% improvement.

Collectively, these figures—along with the declining dig-in rate discussed below in Part II.B.5—demonstrate PG&E’s commitment to safety and reliability.

B. L&M’s Role in the Damage Prevention Process During the OII Period

1. L&M is one component of a broader Damage Prevention process.

Like other utilities, PG&E takes a multi-layered approach to reducing the risk of excavation damage to its assets. Called the Comprehensive Damage Prevention Program, it utilizes numerous activities, processes, and tools aimed at public and employee safety by reducing excavation-related damages to PG&E’s underground facilities. As discussed below in Part II.B.4, because numerous conditions can contribute to dig-ins, any solution requires a correspondingly broad approach. The Comprehensive Damage Prevention Program includes strategies to increase public education and awareness that gas pipelines coexist with communities and of the risks of excavating without calling 811; install and maintain, at frequent intervals along the pipeline right-of-way, pipeline marker signs on the surface above or near natural-gas

pipelines; locate and mark assets prior to excavation near those assets; perform post-excavation evaluation by the Dig-In Prevention/Dig-In Reduction Team to identify process improvements to reduce damages; engage in PG&E's Aerial & Ground Pipeline Patrol Program, which, among other things, traverses transmission and gathering pipelines, as well as some distribution mains, and reports observed threats to the safety and integrity of the pipeline; and maintain the condition of pipeline rights-of-way free from encroachments and non-compatible vegetation. While L&M is an important aspect of Damage Prevention, it is just one of multiple ways a utility prevents excavation damage to its assets and promotes safety.

Within the Comprehensive Damage Prevention Program, the L&M process is designed to improve worker safety, protect underground infrastructure, and promote public safety during excavation activity by identifying the approximate location of a utility's underground assets. PG&E is one of many utilities that belong to the USA One-Call—or "811"—regional notification system. The 811 system is activated when an excavator notifies the regional notification center, which for PG&E is USA North 811 (USA North), via telephone or electronically, that the excavator has met its legal responsibility to physically "delineate" the area where it will be digging by marking the path of the proposed excavation with white paint or alternative methods like flags or stakes.¹⁵ At this point, USA North will notify the participating entities—gas or electrical utilities, cable operators, water and sewer operators, and others, all known as "facility owners" or "operators"—of the excavator's plans.

PG&E, like the other facility owners receiving the information from USA North, then evaluates the information provided by the excavator to determine whether PG&E owns any

¹⁵ See Cal. Gov't Code § 4216.2(a) (requiring the excavator to "delineate the area to be excavated"); *id.* § 4216(d) (defining "delineate" as "to mark in white the location or path of the proposed excavation" or to physically identify the area using alternative marking methods such as flags or stakes).

facilities that may be at risk from the excavation. If PG&E does own facilities near the planned excavation, it provides the excavator with information, typically in the form of color-coded surface markings, to show where underground assets are located. These surface markings are made by a PG&E employee or contractor known as a “locator” who visits the work site in response to the USA ticket. Absent some other agreement, facility operators like PG&E are required to visit the site and physically mark their facilities within two working days (or before the excavator’s identified start time, if that time is more than two days away), and excavators are prohibited by law from digging until the operator has marked the requested area—even if the facility operator’s locator is late or the marking takes longer than two working days.¹⁶

For the period at issue in the OII, PG&E utilized a widely used ticket-management software, called IrthNet, to electronically track the L&M process. IrthNet receives the notification and automatically creates a “ticket” for each excavation. PG&E then assigns those tickets to its locators.

The ultimate goal of this work is to identify the location of facilities to reduce and prevent dig-ins. This was a key conclusion of a team of experts from the National Association of Pipeline Safety Regulators (NAPSR) and the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) tasked with identifying ways to measure the effectiveness of *states* participating in PHMSA’s Pipeline Safety Program. When assessing whether a state regulatory regime overseeing gas-pipeline safety is effective, the team identified one metric as relevant for assessing whether the state’s enforcement program is accomplishing its critical work with respect to Damage Prevention: the dig-in rate, or damages per thousand tickets. The joint PHMSA-

¹⁶ See Cal. Gov’t Code § 4216.2(g); 8 Cal. Code Regs. § 1541(b)(1)(A).

NAPSR team called the dig-in rate “an established benchmark within the damage prevention industry.”¹⁷

2. The L&M process is complex work.

The L&M process is logistically complex, for a number of reasons. The first is that each ticket is complex. For each ticket, PG&E must evaluate information provided through the 811 system, request more information where necessary, assess whether its facilities may be at risk, dispatch a locator to the site, determine with the excavator whether the job should be marked in one visit or phased over time, locate the facilities that are buried underground, provide surface markings, and document the work performed, including with photographs—all, absent some other agreement, within two working days. Moreover, projects have varying levels of complexity. A multi-step, phased project, such as a mile-long excavation in a metropolitan area, can last weeks or longer, and the locating and marking must be scheduled and adjusted to align with the excavator’s progress as the excavation proceeds.

The complexity is exacerbated by the volume of tickets that PG&E receives. During the period from 2012 to 2017, PG&E received more than 4.6 million USA tickets, with the numbers increasing each year during that period.¹⁸ By 2017, PG&E was receiving nearly one million USA ticket requests annually; in 2018, the number exceeded one million. PG&E expects ticket volume to increase further in 2019. The workload can vary year-to-year as the economy expands or slows, season-to-season as construction heats up or cools down, and day-to-day as weather fluctuates and rain prevents proper marking. While PG&E can and does project ticket volume to

¹⁷ Ex. 2 at 4.

¹⁸ See Part IV.B.1 & Fig. 6.

plan for its future staffing needs, it has no ability to control its workload—which can change significantly and quickly.

Facility owners across the industry work to complete tickets within the allotted time, but as a practical matter it is difficult to always meet the two-day requirement. The law contemplates that excavators and operators will work to set schedules that are achievable,¹⁹ and PHMSA, the federal agency with nationwide responsibility for pipeline safety, expects Damage Prevention programs to provide for “temporary marking of buried pipelines in the area of excavation activity before, *as far as practical*, the activity begins.”²⁰

Needless to say, these complexities are not problems for PG&E alone. They present difficult issues for the entire utility industry—as well as for construction companies, telecommunication firms, sewer districts, homeowners, and others. That is why many of those stakeholder groups, as well as one-call services like USA North 811, insurance firms, regulators, and others have worked together through the Common Ground Alliance. The Common Ground Alliance is an association of 1,700 members who are “committed to saving lives and preventing damage to underground infrastructure by promoting effective damage prevention practices.”²¹ Its mission is to identify and disseminate best practices, build public awareness and education programs, disseminate Damage Prevention tools and technology, and collect, analyze, and disseminate data related to these issues.²²

Data from the Common Ground Alliance show that ticket volume and dig-ins present challenges across the industry. Among its other work, the Common Ground Alliance maintains a

¹⁹ See Cal. Gov’t Code § 4216.2(b).

²⁰ 49 C.F.R. § 192.614(c)(5) (emphasis added).

²¹ Ex. 3.

²² *Id.*

database of damage events through which industry stakeholders anonymously submit information to create as comprehensive a picture as possible of the characteristics and factors that contributed to dig-ins. Because submitting information to that database is voluntary, it cannot be described as comprehensive. But its most recent report included 316,442 unique dig-ins that had been voluntarily reported in 2017, a number that actually increased by 13% from 2015 to 2017.²³ While nationally the number of dig-ins has been increasing, PG&E's dig-in rate has decreased substantially. With a 2017 third-party dig-in rate of 1.89 dig-ins per thousand tickets, and 1,718 third-party dig-ins total,²⁴ PG&E's dig-ins are a small piece of a very big picture; and the decrease in dig-in rate between 2012 and 2018 reflects PG&E's focused commitment to safety.

Because the challenges are industry-wide—and in fact are *industries*-wide—the solutions require multi-pronged efforts. Part of those solutions, of course, is imposing appropriate requirements on facility owners like PG&E to respond to 811 calls regarding their underground facilities in a timely manner.²⁵ There are also obligations on excavators, who are required to make 811 calls²⁶ and who, absent an emergency, “shall not begin excavation until the excavator receives a response from all known” facility owners.²⁷

²³ SED Report Attachment 62 at SED-02419.

²⁴ *See* Ex. 4.

²⁵ *See* Cal. Gov't Code § 4216.2(b).

²⁶ *See id.* § 4216.2(a).

²⁷ *See id.* § 4216.2(g).

3. While timely responses to USA tickets are an important element of safe L&M practices, neither late tickets nor late ticket data should be equated with dig-ins and injuries.

As PG&E's Gas leadership testified in their EUOs, a failure to respond timely to an 811 call increases the risk that a dig-in will occur.²⁸ Understanding the nature of that risk is important for this proceeding. From a safety perspective, late tickets are not a leading driver of underground damage. A root-cause analysis by the Common Ground Alliance of over 300,000 "damage events" from the United States and Canada in 2017 demonstrates this. According to the Common Ground Alliance's report, 77% of those damage events were caused by excavator failures: 25% because the excavator never called 811 or provided wrong or insufficient information, and 52% because of other insufficient excavation practices.²⁹ The facility owner's failure to provide *any* marks was the root cause of fewer than 5% of these damage events.³⁰

Data regarding dig-ins on PG&E's facilities are consistent with these industry-wide numbers. Of 1,718 dig-ins by third-parties on PG&E's lines in 2018, the excavator's failure even to call 811 and obtain a USA ticket was the root cause of 41%. Other insufficient excavator practices were the cause of another 41%. Late tickets were not a significant contributing factor.

There are a variety of reasons that late tickets are not a significant driver of dig-ins, but the overarching factor is that a proper Damage Prevention program contains a number of layers of protection. Most obviously, excavators are prohibited by law from digging until the facility owner has marked the requested area, even if the facility operator's locator is late or the marking takes longer than two days. Moreover, a ticket's due time is not necessarily the time that the excavator plans or desires to start digging, or even can start digging. This means, for example,

²⁸ *E.g.*, SED Report Attachment 35 at SED-00944, lines 9-22 (Soto).

²⁹ SED Report Attachment 62 at SED-02434.

³⁰ *Id.* at SED-02433.

that when it is raining in an area, a locator who is late due to weather will often still be in a position to locate and mark the relevant facilities—“put marks on the ground”—when pavement is dry and before the excavator is ready to dig.

When the various layers of Damage Prevention are implemented appropriately, late tickets will generally not lead to dig-ins. This does not mean they will never lead to dig-ins: In connection with its work prior to the issuance of the OII, PG&E has identified dig-ins to which late tickets likely contributed, and PG&E continues to review information relating to historical dig-ins to identify others. In the end, however, PG&E expects the analysis—which it will provide in connection with this proceeding—will show that very few dig-ins were caused by late tickets.

It is worth noting that this analysis looks at the relationship between *late tickets* and dig-ins: the number of dig-ins in which a *failure to timely mark an excavation site* may have been a contributing factor. The analysis does not address the separate question, at the center of SED’s allegations here, of the number of dig-ins that may have resulted from *inaccuracies in the data that PG&E maintains* regarding late tickets.

In the end, the dig-in rate is the most important safety metric, and the late ticket count is an important managerial metric. That is why the industry focuses on the dig-in rate, not the late ticket rate, when analyzing safety.³¹ It is also why PG&E’s Quality Assurance group, when it identified late ticket data issues, said that the potential risk that the problem created was “too few resources being provided to [L&M] personnel.”³² It is why PHMSA routinely collects dig-in data, not late ticket data. It is why the long list of sixteen safety metrics identified in the

³¹ Ex. 2 at 4.

³² Ex. 5 at 2.

Commission's *Decision Authorizing PG&E's General Rate Case Revenue Requirement for 2017-2019* listed dig-ins, but not late tickets.³³ If inaccurate late ticket data caused dig-ins, PG&E, its Quality Assurance team, the industry, and these regulators would presumably treat the issue differently. Indeed, SED did not raise any safety concerns when PHMSA informed SED of the potential concern almost three years ago.³⁴ This is not to minimize the importance of late tickets or of inaccurate late ticket data. Rather, it is to make certain that in this proceeding there is an appropriate assessment of why late tickets and late ticket data are important, the nature of the safety risks, and an understanding of the context in which the late ticket counts were considered.

4. The Company worked proactively to improve L&M safety specifically and Damage Prevention more generally.

Given the importance of Damage Prevention, PG&E undertook a number of initiatives to improve its performance and the safety of its pipelines during this period.

a. The 2012 SAR and the Resulting Strategy

When Jesus Soto arrived at PG&E in 2012 as a Senior Vice President, Gas Operations with extensive responsibilities for PG&E's Gas Operations organization, he was concerned that the Company's Damage Prevention program needed a substantial overhaul. As Soto explained it in his EUO, when he joined PG&E, "I expected gaps within the organization. The gaps were larger than I expected them to be," particularly "around our damage prevention program."³⁵ The Company's dig-in rate, in particular, was not where Soto thought it ought to be.

³³ See *Decision Authorizing Pacific Gas and Electric Company's General Rate Case Revenue Requirement for 2017-2019*, D. 17-05-013, at 193-94 (C.P.U.C. May 18, 2017).

³⁴ SED Report at 15.

³⁵ SED Report Attachment 35 at SED-00818, lines 4-7 (Soto).

Accordingly, shortly after Soto's arrival, the Company initiated a SAR that was designed to bring the breadth of PG&E's resources to bear on dig-in prevention generally, or an "extreme focus" on the issue.³⁶ PG&E convened, and continues to convene, SARs from time to time when targeted performance levels are not being met, to explore whether support from outside that particular working group would be beneficial.

The SAR resulted in a multifaceted strategy to prevent dig-ins. Dig-ins cannot be addressed by focusing narrowly on what happens in the moment of the excavation, or even during the time between an 811 call and the facility owner's response. They must be viewed as part of a broader process, and the SAR was intended to evaluate that broader process and to identify several distinct workstreams as part of the overarching strategy.³⁷ Given the status of the program in 2012, this kind of broad-ranging overhaul was necessary.

b. Promoting 811

Encouraging excavators to use 811 was a critical part of the multi-faceted strategy. During the SAR, participants noted that "no calls," excavators who failed to call 811 at all, caused approximately 60% of damages.³⁸ If excavators would give PG&E and other facility owners the opportunity to locate and mark their facilities, dig-ins could be reduced significantly. Moreover, educating excavators about the need to call 811 does not just lead to increased calls; it also produces an excavator community that is better educated about the Damage Prevention process overall.

³⁶ SED Report Attachment 13 at SED-00299, line 15 (Stavropoulos).

³⁷ Ex. 6 at 8.

³⁸ *Id.* at 2.

Accordingly, PG&E undertook a “positive engagement” strategy and “ramped up, massively” its efforts to encourage excavators to call 811.³⁹ PG&E hosted its first-ever “811 Excavator Conference,” providing 1,000 contractors with safety and best-practices presentations.⁴⁰ It conducted several smaller “excavation awareness” sessions that educated at-fault excavators about 811 calls and other safety measures.⁴¹ And PG&E developed, through the Common Ground Alliance trade organization, nationally recognized awards such as the Gold Shovel Program to recognize excavators who achieve low damage rates, all in an effort to promote 811.⁴²

Recognizing that homeowners (who are not required by California law to call 811) were responsible for 40% of the “no calls” that led to dig-ins,⁴³ PG&E established an educational outreach that encouraged homeowners to call 811 before they dig; PG&E purchased ads, erected billboards, and printed stickers to drive the number of 811 calls up and the number of dig-ins down.⁴⁴ Indeed, PG&E even worked with USA North 811 to make the 811 system more accessible and more user-friendly.⁴⁵ Based on a best-practices review, overseen by a PG&E employee, of other leading call centers, USA North 811 moved to a 24-hour schedule, which both made it more convenient for excavators to call and reduced call waiting times;⁴⁶ implemented Spanish-language capabilities; encouraged use of the online 811 portal; and

³⁹ SED Report Attachment 13 at SED-00238, line 10 (Stavropoulos).

⁴⁰ Ex. 6 at 5.

⁴¹ *Id.*

⁴² *Id.*; SED Report Attachment 13 at SED-00287, lines 11-27 (Stavropoulos).

⁴³ Ex. 6 at 2.

⁴⁴ SED Report Attachment 57 at SED-02155, lines 21-23 (Walker).

⁴⁵ SED Report Attachment 35 at SED-00819, line 24 to SED-00820, line 3 (Soto).

⁴⁶ *See* Ex. 7.

provided dedicated services for homeowners, who were less comfortable than professional excavators accessing the system—all with the goal of making excavators more likely to call 811.⁴⁷

c. Industry-Wide Efforts

PG&E also made it a point during this period to contribute to industry-wide efforts to improve L&M safety. Soto was elected vice-chair of the Common Ground Alliance⁴⁸ and PG&E’s manager of Damage Prevention, Andy Wells, was elected Chairman of USA North 811’s Board of Directors.⁴⁹ PG&E used this involvement to promote Common Ground Alliance’s Best Practices through the USA North 811 network,⁵⁰ and to study and implement best practices from industry-leading 811 call centers.⁵¹

Important industry-wide efforts have also occurred through the American Gas Association (AGA), with strong support from PG&E. PG&E was instrumental in developing the AGA’s Peer Review program,⁵² a voluntary “peer-to-peer discussion program that ... offer[s] an effective venue for operators to compare safety and operational initiatives and identify leading practices and opportunities to enhance their performance,”⁵³ and was one of just ten companies to join the initial pilot round of peer reviews. Each participating company—there are now nearly 60—is reviewed and sends subject-matter experts to review other participating companies.

⁴⁷ See SED Report Attachment 35 at SED-00819, line 24 to SED-00820, line 4 (Soto).

⁴⁸ See, e.g., Ex. 8.

⁴⁹ See Ex. 9 at 3.

⁵⁰ See, e.g., Ex. 10; Ex. 11 at 2.

⁵¹ Ex. 9 at 3.

⁵² See SED Report Attachment 13 at SED-00260, line 27 to SED-00261, line 9 (Stavropoulos).

⁵³ Ex. 12.

Typical reviews last four days and include a dozen or more reviewers, 60 to 100 interviews, and a final-day debriefing session at which the peer reviewers share their observations.⁵⁴

The AGA also facilitates information-sharing designed to help utilities measure their progress. Using information provided from its members regarding their performance on dig-ins and other issues, the AGA provides participating utilities with information about how their performance compares to their peers' performance. For L&M purposes, the AGA's most relevant benchmarking metric is the dig-in rate. By participating in the AGA benchmarking program, a company can determine, in addition to the information the company's own data provides about whether its dig-in rate is improving or declining in absolute terms, how the company compares to its peers. Whether it has moved from the third quartile to the first or second, for example, can be an important measure of progress.⁵⁵

d. Reorganization

As another part of its strategy to improve its Damage Prevention performance, PG&E significantly restructured its L&M organization. Prior to 2013, employees who located and marked PG&E facilities were embedded in geographically based teams. For example, locators based in the Bay Area reported up to a manager who was not focused exclusively on L&M, but on Bay Area gas operations more generally. While this structure empowered managers and teams to look at their regions holistically, the structure also meant that resources could be diverted away from L&M more easily when other "priorities" emerged.

In 2013, PG&E reorganized the L&M function, pulling it out of the dispersed, geographic-based divisions, and placing it all under a single director. The director, as well as the

⁵⁴ *Id.*

⁵⁵ Data from these benchmarking efforts, which rely on voluntary participation from others in the industry, were provided to PG&E by AGA subject to restrictions on PG&E's ability to share their results.

employees in that organization, its supervisors, and its superintendents were focused on L&M, across PG&E's service territory. L&M was no longer competing for attention and resources within each geographic area. The changes were designed to create supervisory focus, consistency, and streamlined communication within L&M, as L&M and its new director could direct L&M resources where they were needed. The reorganization had been discussed during the 2012 SAR, where it was reported that the reorganization had installed the "strongest supervisor to standardize management of field resources."⁵⁶ The organization was placed under Joel Dickson, an experienced leader who had been with the Company since 1996.

e. L&M Handbook

PG&E also published new L&M Handbooks, in 2013 and 2015.⁵⁷ These handbooks were particularly noteworthy, from a safety perspective, because they had been written by the locators who actually performed the work. At one level, this meant that their procedures were practical, as the procedures were informed by the experience of field personnel. At another level, the involvement of field employees was intended to further integrate proper procedures and compliance into the L&M culture. In drafting and developing the handbooks, L&M personnel became more educated and more invested in the right way to do things.

f. Audits

PG&E also reviewed its L&M and Damage Prevention programs routinely during the period at issue, identifying issues and acting on the issues identified. The most significant came in 2012, when PG&E's Internal Audit group published the results of its assessment of controls

⁵⁶ Ex. 6 at 8.

⁵⁷ SED Report Attachments 25, 26.

over the effectiveness of PG&E’s Gas Damage Prevention program (2012 Internal Audit).⁵⁸ The 2012 Internal Audit built on a previous assessment conducted by PG&E’s Quality Assurance group in 2009 and 2010 (2010 Quality Assurance Audit).⁵⁹ While the 2012 Internal Audit identified a handful of issues, including high demand and staffing shortages, one issue regarding late ticket data is particularly relevant here. To understand that issue, it is first helpful to understand how IrthNet, a ticket-management software tool, works.

i. IrthNet Background

As noted above, PG&E used a ticket-management software called “IrthNet” to help it manage the huge volume of tickets that it received over the years. While it can be customized to meet individual utilities’ needs, IrthNet is advertised as “the premier, leading One Call management solution in the industry,”⁶⁰ and is used by USA North 811 itself. It was in the IrthNet system that 811 tickets were received and tracked, that locators recorded their activities, and PG&E received reports reflecting the Company’s L&M activities.

While the system has changed in certain ways, the IrthNet process begins when a ticket is created in the system as a result of an excavator’s outreach to 811. Once assigned to a PG&E locator, the IrthNet user—typically the locator—can open the ticket to review its details, such as the location and nature of the project, or record that the user had taken an action on the ticket, such as contacting the excavator or marking PG&E’s facilities. To record an action on the ticket, the user enters a “response” on the ticket by choosing from a drop-down menu that lists

⁵⁸ See SED Report Attachment 45.

⁵⁹ Quality Assurance, at the time of its 2010 Quality Assurance Audit, was tasked with ensuring that processes had appropriate controls in place; while its reviews were similar in certain ways to reviews conducted by Internal Audit, Quality Assurance was also more integrated into routine operations than Internal Audit, which purposefully maintains a distance from the lines of business.

⁶⁰ Ex. 13.

numerous common categories of action; over time, the list has included over 25 options, such as *Facility Marked*, for when the ticket is marked; *Respond To A Phased Ticket*, for when the ticket involves a large project that the locator and excavator agree should be marked over time, such as a blocks-long construction project that will take weeks or months; *Notification of New Start Time*, for when due times are renegotiated; and *Inclement Weather*, for when weather makes marking impossible or ineffective. Depending on the response that the user selects, the user may be prompted—or may be required—to provide additional information. Such information may be added in a notes field, in which the user can enter his or her own comments in a free-form manner, or in preset fields requesting specific information, such as the name and phone number of the person whom the user contacted to discuss the ticket.

Users often record numerous responses on an individual ticket, as they meet with or contact the excavator, learn that the ticket contains incorrect or insufficient information, mark the facilities (whether in one visit or multiple visits), or conclude that PG&E’s facilities are not at risk—that is, do not conflict—with the planned excavation.

When IrthNet produced its late ticket report, it used an internal search logic to identify tickets that met certain predetermined criteria. That IrthNet search logic changed over time, but, generally speaking, the logic identified late tickets by comparing a ticket’s *due time* with the time on which certain actions occurred with respect to that ticket.

ii. The “Glitch”

The 2012 Internal Audit described that issue, and the issue’s history, as follows:

In 2009 and 2010, [Internal Audit] and [Quality Assurance] noted that recordkeeping processes used to establish the on-time performance of the Utility’s [L&M] program had a system glitch, in that the time-clock feature of the software would be halted just by opening the record without performing the work or documenting an agreement with the excavator to postpone the work. As a result, the reports for on-time performance generated using this software showed a 99 percent on-time response for 2010 that cannot be relied upon. Interviews with

employees in the damage prevention program confirmed that this deficiency has not yet been corrected.⁶¹

The software “glitch” that the 2012 Internal Audit referred to had originally been identified in the 2010 Quality Assurance Audit. It referred to an issue in the logic that IrthNet used when counting late tickets: In determining whether the ticket had been completed within the required time, the IrthNet logic looked not at the time the ticket was actually marked, but at whether the IrthNet user had taken some other action on the ticket—“opening the record without performing the work,” according to the 2012 Internal Audit—in the IrthNet system. The IrthNet late ticket counting logic used this time point to determine whether the ticket was late.

While the 2010 Quality Assurance Audit that first identified the “glitch” discussed other potentially relevant problems, in 2012 Internal Audit noted in its post-audit documentation that the issue was primarily technical:

[Internal Audit and Quality Assurance] concluded that the database configuration, along with controls and processes used by the Utility to document this work, were not sufficient to ensure accurate reporting of the Utility’s on-time results.⁶²

Accordingly, Internal Audit approved a corrective action that it deemed appropriate for the issue as Internal Audit understood it:

Response: Incorporate better controls into IRTHnet to prevent incorrect data.
Explore option to add this as a QC item when QC program is developed.⁶³

PG&E worked to resolve the issues that the 2012 Internal Audit identified. And by the end of 2012, Internal Audit concluded that the late-ticket issues identified in the 2010 and 2012 audits had been resolved. In addition to the development of certain late ticket reporting metrics for monitoring by supervisors, Internal Audit’s tracking system reported that two IrthNet-related

⁶¹ SED Report Attachment 45 at SED-01542.

⁶² Ex. 14.

⁶³ *Id.*

actions in particular had been completed. First, the “system glitch has been corrected,” and the late-ticket counting software would base its timeliness determinations on the time at which someone actually entered a response on the ticket. And second, new safeguards were incorporated into IrthNet to require additional information when locators recorded that they renegotiated a due time. “When a ‘Negotiate New Start Time’ response is selected, the locator will be prompted to list the name and phone number of who they contacted and the method of negotiation.”⁶⁴ PG&E’s monthly “Keys to Success” reports, which compile and present important metrics, tracked the associated corrective actions.⁶⁵

Internal Audit concluded that the IrthNet-related corrective actions were implemented in December 2012, and the issue was treated as resolved.⁶⁶

g. Eliminating the Voicemail Option

PG&E also decided, early in this period, to prohibit the use of voicemail for the purposes of renegotiating the due time for 811 tickets. Renegotiating due times is a fact of life for locators: Heavy volume, inclement weather, and other issues can make it difficult to respond to every ticket by the due time originally indicated. In those cases, the law contemplates that locators and excavators can agree to a new due time.⁶⁷ Needless to say, the best way to reach a “mutual[] agree[ment]” is through a direct conversation, whether in person or by phone. But at times, locators had attempted to “renegotiate” ticket due times by leaving voicemails for the

⁶⁴ SED Report Attachment 48.

⁶⁵ See, e.g., SED Report Attachment 44 at SED-01187.

⁶⁶ SED Report Attachment 24 at SED-00409-10. As discussed in Part IV.C.2, it would later be discovered that the “glitch” had not been fixed by the 2012 corrective actions.

⁶⁷ See Cal. Gov’t Code § 4216.2(b) (“[A]n excavator and an operator may mutually agree to a different notice and start date.”).

excavator. Voicemail could be sufficient if the voicemail was eventually returned and the parties reached a bona fide mutual agreement, or if an agreement was reached in the field and a voicemail was left at the main office of the excavator who had called in the ticket.⁶⁸ But simply leaving a voicemail *informing* the excavator of a delay, with no mutual agreement, was deemed insufficient.

PG&E's 2013 L&M Handbook expressly prohibited the use of a "unilateral" voicemail to renegotiate ticket start times. That handbook states, in clear terms, that "[v]oice message is NOT acceptable" when negotiating a new due time.⁶⁹ Subsequent versions of the L&M Handbook have maintained that prohibition.⁷⁰

PG&E informed locators of this voicemail prohibition earlier, before the 2013 L&M Handbook came out. The training was conducted in connection with changes being made to IrthNet following the 2012 Internal Audit. The training was necessary for locators to understand that the IrthNet system would now block them from adjusting a ticket's due time unless they also provided the name and contact information of the person they spoke with.⁷¹ As part of that training, PG&E expressly informed locators that the use of voicemail was prohibited:

ATTENTION: LEAVING A VOICEMAIL WITH THE EXCAVATOR NO LONGER APPLIES AS A VALID METHOD OF CONTACT FOR NOTIFICATION OF NEW START TIME. (It will still be shown as an available option until IRTN is able to remove it. Please do not use it.)⁷²

⁶⁸ SED Report Attachment 57 at SED-02080, line 5 to SED-02081, line 15 (Walker).

⁶⁹ SED Report Attachment 25 at SED-00421.

⁷⁰ SED Report Attachment 26 at SED-00430.

⁷¹ SED Report Attachment 46.

⁷² *Id.* at SED-01553.

Because the IrthNet software is maintained by a vendor, changes in its configurations must be implemented by the vendor.⁷³ Accordingly, PG&E instructed its software vendor, Irth Solutions, “to have the option of ‘Voicemail’ removed from the Method of Contact field.”⁷⁴

5. As a result, the Company’s Damage Prevention programs became more effective during the period at issue.

These collective investments in Damage Prevention and L&M have been and continue to be successful. The Company’s dig-in rate—the key safety benchmark—fell by more than 40% since 2013. There are a number of noteworthy aspects of the decline.

First, the decline has been steady and significant. Figure 1 demonstrated that as the reforms that PG&E implemented in its L&M and Damage Prevention programs have taken hold, PG&E’s dig-in rate has dropped every year since 2013, from 2.75 in 2013 down to 1.89 in 2017 and 1.61 in 2018. At the volume of 811 tickets that PG&E actually received in 2018, a drop from 2.75 dig-ins per thousand tickets to 1.61 dig-ins per thousand meant the prevention of over 1,200 dig-ins in a single year.

Second, as discussed elsewhere, PG&E improved its dig-in rate at the same time that its workload was increasing dramatically. Over the same period that PG&E cut its dig-in rate nearly in half, the number of 811 calls to which it was responding nearly doubled, from 613,532 in 2012 to over 1.1 million in 2018.⁷⁵ And since PG&E’s Damage Prevention and L&M initiatives began in 2012, PG&E has set steadily tougher goals for reducing its dig-in rates.

⁷³ SED Report Attachment 57 at SED-02077, lines 14-18 (Walker).

⁷⁴ Ex. 16. As discussed in Part IV.C.3, notwithstanding PG&E’s request, the voicemail option was not removed during this time.

⁷⁵ See Part II.B.1.

Figure 2. PG&E’s Dig-In Rate Targets and Actual Performance

Year	Actual Dig-In Rate	Target Dig-In Rate ⁷⁶
2012	2.53	3.01
2013	2.75	3.89
2014	2.42	2.60
2015	2.11	2.06
2016	2.02	2.03
2017	1.89	1.92
2018	1.61	1.82

As shown in this figure, in most cases, PG&E has met and exceeded its goals. Whatever problems PG&E had in its late ticket data, PG&E’s Damage Prevention operation was becoming more and more effective, and its Gas Operations were becoming safer.

Third, it is worth noting that PG&E’s Damage Prevention program has also improved relative to the rest of the country. Expert testimony that PG&E will provide in this proceeding will show that PG&E has steadily improved its standing compared to others. The testimony will show that this is not simply a case of the industry becoming safer—though PG&E has worked hard to make the industry safer, too⁷⁷—but of PG&E outperforming most of the rest of the country.

While the dig-in rate is the most important Damage Prevention safety metric, it is not the only metric on which PG&E was improving. As discussed in Part IV.B.1, PG&E’s work to promote 811 led to a significant increase in 811 calls, to nearly a million in 2017 and over a million in 2018—and a decrease in the percentage of dig-ins that were caused by a failure to call 811, from “no-calls” causing 60% of dig-ins in 2012 to 41% in 2018.⁷⁸

⁷⁶ Target dig-in rates for these years are available at Exs. 17, 18, 19, 20, 21, 22, 23.

⁷⁷ See Part II.B.4.c.

⁷⁸ Ex. 4.

III. Late Tickets: Efforts, Results, and Issues

To understand the nature of the late ticket data issues described in the SED Report and their existence over time, it is important to understand the context in which they occurred. Whereas Part II focused on Gas and L&M issues generally, this Part focuses on late tickets in particular. Part III.A provides an overview of PG&E's efforts to promote on-time L&M performance. Part III.B discusses the results that those efforts produced. Part III.C describes the manner in which PG&E senior leadership learned in 2017 that the Company's late ticket data was plagued by issues that the Company thought had been resolved, and four main efforts undertaken to understand the nature and extent of the problem.

A. The Company sought to promote on-time performance through a number of means.

In addition to PG&E's overall efforts to improve the Company's Gas Safety and L&M programs, described in Part II, PG&E took a number of steps during this period that were focused specifically on improving its ability to respond to 811 tickets in a timely manner. Resources—both human and technological—were important, as were PG&E's managerial strategies.

First, at the senior-most levels of the Company, leaders emphasized that they would support what the L&M team needed in order to improve safety. This had been a key message under the Gas organization's post-2011 leadership. Since 2011, Gas Operations emphasized the Company's Speak-Up culture this way: *If you keep a problem to yourself, it's your problem; if you put it on the table, it becomes our problem, and we'll help you solve it.* Leadership thus worked to make clear that requests for safety-related investments would be approved: As one leader during that period explained:

We hired, in the first three years after I got here, 2000 people, 2000 field workers, trained them up, deployed them to the field. In the first two or three years when I

came, I probably spent 2 billion dollars of shareholder money to do the work that we had to get done.

So, whenever we identify a problem we came up with an expression across the entire patch of the company: Find it and fix it. And we can't fix what we don't know about. And that was the esprit de corps. That is the culture that we try to create and when people needed more resources, we provided them those resources.⁷⁹

By 2016, PG&E was making significant investments in safety; leadership viewed the investments as critical, and was prepared to deal with the budgetary consequences of putting resources towards issues like L&M.

Second, PG&E backed up leadership's message, with actual investments. The most significant investments were in staffing. Staffing L&M can require careful tradeoffs, as demands for locators fluctuate with the construction industry—both in the long-run, as the economy grows or contracts, and seasonally, as construction booms or slows during certain times of the year. Given these fluctuations, the “right” L&M headcount is not always apparent. There will inevitably be times when the L&M organization requests more staffing; depending on the circumstances, the most sensible solution at any given time may be to hire more permanent staff, hire contractors, or borrow resources from elsewhere in the Company.

While PG&E does not claim to have perfectly calibrated staffing levels during all of these fluctuations, it was responsive to messages it received regarding staffing. In 2015, for example, PG&E responded to increased demands, by convening a SAR (2015 SAR), again led by Jesus Soto, focused in part on L&M staffing. The problem was that employees would join PG&E as locators, but would quickly move on into other positions in the Company that were in less expensive regions to live or that offered more opportunities for advancement. With ticket

⁷⁹ SED Report Attachment 13 at SED-00283, lines 6-20 (Stavropoulos).

volume rising significantly, locators were stretched thin. The SAR produced both long- and short-term strategies for dealing with this turnover. For the long term, PG&E hired 50 additional personnel; while those new hires were being onboarded and trained, the Company engaged 30 qualified contractors.⁸⁰ Leadership also negotiated and put in place agreements with IBEW to add contractors where needed.⁸¹ And to address a backlog of tickets, PG&E temporarily reassigned employees from another part of the Company to assist.⁸² While the permanent L&M team was working hard, it was also receiving resources designed to relieve those pressures.

The message back to PG&E leadership following the 2015 SAR was that the L&M team, while at times stretched thin, had what it needed. Indeed, Director Joel Dickson specifically informed PG&E leadership that he had the proper resources to do the job. During the 2015 “surge” in which PG&E temporarily reassigned employees to L&M, Dickson thanked colleagues—copying PG&E leadership—for pitching in from elsewhere in the Company, saying, “As a direct result of your partnership/engagement we have been successful in reducing the backlog of [l]ate tickets to virtually zero.”⁸³ While the particular comment at that time was about reducing a *backlog* of late tickets, not eliminating late tickets altogether, the message to management was that staffing was sufficient. In 2016, Dickson wrote his direct reports, “Everything I have asked our [Senior] Leaders for; resources, money, training, tools etc. we received.”⁸⁴ In 2017, Dickson told Soto, in the context of a staffing discussion, that “overall we are where we expected to be”—and that extending an agreement with IBEW would be his

⁸⁰ Ex. 24.

⁸¹ Ex. 25 at 41; Ex. 26 (extending, at request of L&M Director Joel Dickson, IBEW agreement).

⁸² Ex. 20 at 103.

⁸³ Ex. 27.

⁸⁴ SED Report Attachment 55.

primary additional “ask”; Soto, as noted above, fulfilled it.⁸⁵ His testimony to SED was unambiguous:

Q And in your opinion, did PG&E’s Locate and Mark Department historically have enough resources to sufficiently respond to all late tickets?

A To all —

Q The late tickets?

A Yes.

Q Even when it lost staff at some of the off-peak staff times that we talked about?

A Yes.⁸⁶

To be sure, the staffing picture could be complicated; Dickson himself asked for additional resources several times over the years, and the economic and seasonal fluctuations meant there would be times when staffing was tight. But management responded to the concerns and invested in personnel. When it did, it was told during that time—both by Dickson and by what appeared to be improving late ticket numbers—that L&M had what it needed.

In addition to staffing, PG&E also invested in technology to improve its responsiveness to 811 tickets. Introducing IrthNet and its ticket-management and reporting capabilities dramatically changed PG&E’s L&M work in the years after IrthNet was fully deployed in mid-2007. As Guidepost described it, prior to IrthNet,

Although avoidance of late tickets was a goal, there was much less scrutiny of late tickets. As [one supervisor] told us, in 2003, “either they got done or they didn’t get done...and the tickets simply got resolved when they got resolved.” There was no on-line management of tickets, and instead tickets were managed with a

⁸⁵ Ex. 26.

⁸⁶ SED Report Attachment 33 at SED-00682, lines 1-11 (Dickson).

“paper” system. . . . There was no way to check locator[s’] whereabouts or timeliness.⁸⁷

While IrthNet may have been in need of improvements by 2016, Guidepost noted that IrthNet facilitated an “increased level of scrutiny and oversight” of late tickets.⁸⁸ And PG&E invested in similar resources in the field, deploying new mobile technology to its locators in the field,⁸⁹ and upgrading to better equipment that connected directly to PG&E’s intranet when locators requested it.⁹⁰ Taken together, these kinds of investments made it possible to track late tickets and manage resources in a way that had not been possible before.

PG&E’s senior Gas Operations management paid attention to the timeliness of its 811 responses, walking through late ticket information on its Daily Operations Briefing, a 7:30 a.m. daily call focused on dig-ins, safety, and various field activities.⁹¹ While they properly viewed locator timeliness as but one element of the Damage Prevention program overall, there is no doubt that they were committed to improving it.

B. The Company’s efforts to improve timely responses to USA tickets appeared to be having significant success.

As PG&E reorganized the L&M team, dedicated additional staffing resources, and upgraded its technology, the Company saw what it would have expected to see: Late ticket numbers were going down.

⁸⁷ SED Report Attachment 3 at SED-00018.

⁸⁸ *Id.* at SED-00020.

⁸⁹ Ex. 28 at 8.

⁹⁰ Ex. 29.

⁹¹ SED Report Attachment 55.

Figure 3. IrthNet Late Ticket Counts

	2012	2013	2014	2015	2016 ⁹²
IrthNet late ticket count	4,623	13,547	13,391	3,385	44
Total ticket population	613,786	657,268	701,751	819,040	898,035
Percent late	0.8%	2.1%	1.9%	0.4%	≈0.0%

These numbers were derived from IrthNet, the industry-standard database and PG&E’s only comprehensive ticket-management data. For the majority of this period, there was little reason for senior management to question the numbers: PG&E believed in December 2012 that the “glitch” in IrthNet’s late ticket counting software had been fixed,⁹³ the Company had formally prohibited the use of voicemail and required locators to document details of their negotiations for extensions,⁹⁴ and was training locators accordingly.⁹⁵

It was also reasonable for management to believe that the improvement in late ticket numbers was accurate. The decline, while dramatic, was not perceived by many as surprising for a number of reasons. First, given the significant steps that PG&E took during that period, as described in Part III.A, declines in late tickets would have been expected. The restructuring, investments, and 2012 and 2015 SARs were intended to produce results. From the perspective of senior leaders, the decline in late ticket numbers was not coming out of thin air; it was a product of years-long investment and effort.

Moreover, the reported decline in late tickets was supported by the Company’s progress in reducing its dig-in rate, which as described in Part II.B.5 has consisted of sustained

⁹² Because the IrthNet late ticket counting logic was changed in 2017, this chart does not include data for 2017. The 2017 late ticket count was developed using a revised counting logic.

⁹³ SED Report Attachment 24 at SED-00409-10.

⁹⁴ Ex. 30 at 5-6; SED Report Attachment 25 at SED-00421.

⁹⁵ SED Report Attachment 46.

improvement every year since 2013, both in absolute terms and relative to the industry. Expert testimony will show that PG&E is now near the top of the country in its performance.

Evidence in this proceeding will show that to PG&E and industry professionals, declines in late-ticket rates and the dig-in rate were likely to go hand-in-hand: A decline in dig-in rates was good evidence of an improving Damage Prevention program overall. And if the Damage Prevention program overall was improving significantly, evidence of significant improvements in one component of that program—L&M—that had itself received substantial investment and focus would be expected.

As we know today, PG&E's late ticket performance did not improve as significantly as the data indicated. To be sure, there were unquestionable successes, even setting aside the late ticket issues: PG&E has improved on the key safety metric, the dig-in rate; PG&E has gone from responding to approximately 600,000 tickets in 2012 to over a million in 2018—nearly a 70% increase; and even with that increase, the Bates White analysis shows PG&E's late-ticket rate came down from its high of 4.5% in 2013.⁹⁶ Those successes are important and are the result of meaningful work.

Notwithstanding those successes, the numbers of late tickets that IrthNet reported were understated. As discussed elsewhere in this Report, the problems took a variety of forms, and in many cases involved issues that PG&E thought it had resolved. When the March 2017 AGA Peer Review indicated that the problems had persisted, despite the audits, the SARs, the investments, and the policies, one supervisor described the news as a “punch[] in the gut.”⁹⁷

⁹⁶ Ex. 31 at 5.

⁹⁷ Ex. 32.

C. Efforts to Understand the Problems

While PG&E's efforts to improve its Damage Prevention and L&M processes, and particularly its ability to respond to 811 tickets in a timely manner, were showing results, it became apparent in 2017 that the successes were not precisely what they seemed, and that previous efforts to resolve the issues had been unsuccessful. The problems in the late ticket data were brought to Gas Operations leadership's attention in connection with the AGA Peer Review in March 2017. PG&E's response when that information was presented to it is described in Part III.C.2, including brief overviews of the work that Guidepost and Bates White performed when retained as PG&E sought to understand the nature of the problems, in Parts III.C.3 and III.C.4.

Before turning to the events of March 2017 and PG&E's response to those events, this Part begins with a summary of the SED investigation and PG&E's cooperation with it.

1. SED Investigation

SED states that it began its preliminary investigation of the late ticket undercounting issue after receiving information from PHMSA in April 2016.⁹⁸ Upon receiving that information, SED did not, as it might have on an issue that involved "significant risks to the public,"⁹⁹ inform PG&E of the information it received or an urgent need to change practices. Over the next two-and-a-half years, SED conducted nine EUOs of current and former PG&E employees, submitted more than 18 multi-question Data Requests, and reviewed PG&E's internal standards and records.¹⁰⁰ Apart from the presence of counsel at EUOs of PG&E's most senior leaders, SED excluded PG&E from its examinations of PG&E employees. SED provided PG&E with transcripts for the EUOs of the senior leaders but for none of the others.

⁹⁸ See SED Report at 161.

⁹⁹ *Id.* at 177.

¹⁰⁰ *Id.* at 161-65.

PG&E responded to Data Requests for specific ticket-related inquiries by exporting information from IrthNet’s ticket database, often sending IrthNet-generated spreadsheets directly to SED. PG&E expressly advised SED early on in the investigation that the Company was providing the late ticket data precisely as it was produced in IrthNet.¹⁰¹ PG&E continued to be transparent about the source and nature of the information it provided to SED.

PG&E also made clear while SED had not informed PG&E of the nature of its concerns, PG&E was committed to accuracy and transparency. It reviewed and corrected initial statements early in the investigation,¹⁰² and informed SED of data discrepancies in PG&E’s late ticket counts in the first data response submitted¹⁰³ after the March 2017 AGA Peer Review that brought the problems to Jesus Soto’s attention.¹⁰⁴

In November 2017, PG&E, which had not been party to any of the EUOs that SED had conducted by that time, conveyed to SED via telephone that it had learned through discussions with L&M personnel about “what appear to be instances of intentional under-reporting of late tickets.”¹⁰⁵ The “informal[] and preliminar[y]” information became apparent through discussions that PG&E conducted as part of its own investigation, discussed further below in

¹⁰¹ Ex. 33 (“Please Note that PG&E uses IrthNet’s ‘Past Due Ticket Listing’ report to generate the late ticket reports.”) (“Please see attachment ‘Index 10279-02_Jan2013 - Jun2016 Cancelled Tickets_CONF.xlsx’ *for an export from IrthNet* of cancelled tickets received between January 2013 and June 2016.”) (emphasis added).

¹⁰² *See id.*

¹⁰³ *See* SED Report Attachment 2.

¹⁰⁴ The SED Report suggests that the timing of PG&E providing this information shortly before SED conducted certain EUOs is “concerning.” SED Report at 158. In fact, the timing of the submission was driven by PG&E’s discovery, through the AGA Peer Review in March 2017, and a SAR that PG&E initiated a few weeks later, *see* Part III.C.2, that late ticket data issues it had thought were resolved in fact had persisted.

¹⁰⁵ SED Report Attachment 59.

Part III.C, in particular regarding a problem in IrthNet that could “result in a late ticket appearing to be on time ... when in fact the ticket ... should have been identified as late.”¹⁰⁶ That is, when PG&E learned problematic information about the data, it affirmatively contacted SED to share it.

PG&E took a number of important additional steps. It retained Guidepost to prepare a non-privileged investigation of the issue, and informed SED that the Company would provide SED with Guidepost’s report. PG&E sought to provide SED with access to Guidepost’s findings on a real-time basis, informing SED on December 5, 2017, as it had previously, that:

PG&E has invited SED to participate in weekly investigation update calls led by Guidepost, in which PG&E’s court-appointed Monitor also participates. PG&E welcomes SED’s participation in these calls.¹⁰⁷

In February 2018, PG&E informed SED that given problems identified in the IrthNet ticket-counting logic, the Company had retained Bates White “to aid in understanding the IrthNet system,” and that PG&E expected to revise its late ticket counts.¹⁰⁸

PG&E provided SED with the Guidepost and Bates White Reports on May 2, 2018, and subsequently provided SED with a series of in-person and telephonic briefings, including with the participation of Bates White, regarding the information it provided. The Company submitted a set of omnibus corrections to previously submitted data on June 29, 2018, continued to respond to SED’s data requests, and was engaged in ongoing discussions regarding certain dig-in-related follow-up information that SED had requested when the OII was issued on December 14, 2018. PG&E also affirmatively sought SED’s feedback on a draft Compliance Plan that PG&E provided to SED, voluntarily, in August 2018.

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ SED Report Attachment 17.

2. AGA Peer Review and SAR

In March 2017, after the SED’s informal investigation had begun but before the full nature of SED’s concern was apparent to PG&E, PG&E hosted an AGA Peer Review of PG&E’s Damage Prevention program. PG&E had been instrumental in the creation of AGA’s peer review process, through which utilities—borrowing from practices more common in the nuclear sphere—visited each other, shared best practices, and identified opportunities for improvement. At the end of the multi-day session, the visiting peers provided feedback to the host company based on their meetings, observations, and insights. Towards the end of this peer review, at a March 23, 2017 debriefing session, reviewers informed Jesus Soto that according to employees they had talked to, the Company’s actual performance on late tickets was being shielded, and employees knew it.

Soto realized that issues he had previously understood to be resolved—or to be non-issues—were ongoing. By the weekend, PG&E employees were working on an action plan.¹⁰⁹ At Soto’s next leadership meeting, he announced a new SAR focused on the late ticket issue.¹¹⁰ As discussed further in Part III.C.2 and IV.D.1, the SAR convened on May 10, 2017.¹¹¹ This was the third major SAR that PG&E convened regarding L&M issues, after the 2012 SAR that addressed (among other things) issues related to the 2012 Internal Audit, and the 2015 SAR that dealt with resources and staffing.

It was in the course of this 2017 SAR that PG&E learned, and informed SED, that Quality Management had found “USA ticket responses that were not handled in accordance with

¹⁰⁹ Ex. 34.

¹¹⁰ SED Report Attachment 31 at SED-00492.

¹¹¹ Ex. 35.

PG&E procedures,” and said that those tickets “would be identified as on-time in IRTNet, but would have been a late ticket if processed correctly.”¹¹² “As a result,” PG&E wrote, shortly after its 2017 SAR began, there were late tickets that “were excluded from the late ticket counts provided” previously.¹¹³ PG&E later learned during the SAR and informed SED that its late ticket data may have been affected by “instances of intentional under-reporting of late tickets.”¹¹⁴

The 2017 SAR’s action plan ultimately resulted in the Compliance Plan discussed further in Part IV.E.

3. Guidepost Investigation

When PG&E learned through “informal[] and preliminar[y]” discussions in the 2017 SAR investigation that there may have been intentional under-reporting, the Company retained the services of a third-party, fully-independent investigative firm, Guidepost, to probe the late-ticket data inaccuracies and prepare an independent report on its root causes.¹¹⁵ PG&E provided Guidepost access to over 250,000 documents and instructed its employees to fully cooperate with Guidepost investigators.¹¹⁶ As Guidepost put it,

[PG&E] cooperated fully and without reservation during the investigation and made clear numerous times that we could have access to any and all information we deemed relevant, and could speak to or interview any PG&E employee at any level. PG&E also made clear that it would not seek to influence our [judgment] in any way. All of these promised conditions were met.¹¹⁷

¹¹² SED Report Attachment 2 at SED-00004.

¹¹³ SED Report Attachment 2 at SED-00004.

¹¹⁴ SED Report Attachment 59; *see also* Part III.C.1.

¹¹⁵ SED Report Attachment 3 at SED-00010.

¹¹⁶ *Id.* at SED-00013.

¹¹⁷ *Id.* at SED-00010.

PG&E invited both the Monitor and SED to participate in real-time debriefings from Guidepost,¹¹⁸ as well as in the interviews themselves.

PG&E proactively committed to SED that it would provide Guidepost's third-party report when completed, and did so on May 2, 2018.

4. Bates White Analysis

In February 2017, PG&E retained Bates White, an economic consulting firm, to review the late ticket counting logic that had been used in IrthNet—the logic that counted certain late tickets as timely, due to the “glitch”¹¹⁹—and to develop a more sophisticated logic. Bates White's logic would ultimately take into account more of the data associated with each ticket, to aid in identifying additional tickets that should have been counted as late. PG&E informed SED on February 23, 2018, that Bates White had been retained, and that “[o]nce this revised logic is finalized,” PG&E would “explain how the revised late ticket counts were derived based on the information available in IrthNet and provide the resulting data.”¹²⁰

Bates White ultimately provided, on May 2, 2018, revised late ticket data and an analysis of the number of dig-ins that were associated with late tickets that its revised logic identified. Because Bates White continued to perform additional work after May 2, including at the request of SED, the key conclusions of its work are here collected and provided in a single document.¹²¹ As discussed further below, that Updated Bates White Report reflects updated total ticket and late ticket numbers, as it has continued to improve its late ticket counting logic.

¹¹⁸ See SED Report Attachment 59.

¹¹⁹ See Part II.B.4.f.ii.

¹²⁰ SED Report Attachment 17.

¹²¹ Ex. 31.

Given the nature of Bates White’s analysis, PG&E believes that a technical workshop with Bates White’s involvement may be of assistance to this proceeding if requested.

a. Bates White’s Late Ticket Analysis

i. Background on Bates White’s Analysis and the IrthNet Search Logic

To understand the Bates White logic used to scope the potential number of late tickets, it is helpful to understand two important things that the IrthNet search logic, described in Part II.B.4.f, could not do.

First, in determining whether the locator had taken the necessary actions to complete the ticket on time, IrthNet did not distinguish between different types of responses that users entered. That is, under the post-2012 ticket-counting logic, IrthNet counted a ticket as timely if there was *any* response prior to the ticket’s due time, even if the response did not indicate that the ticket was complete. For example, a locator might have asked the excavator to meet at the site and discuss the project, and properly recorded a *Field Meet Requested* response in IrthNet. While that response was timely and accurate, it did not actually indicate that the ticket was completed before the due time. But IrthNet would have counted that ticket as timely during the 2012-to-2017 period, because there was a response prior to the due time. This ticket, and others like it, would not have appeared in IrthNet’s late ticket count even if the facility was not marked by the due time. This is the “glitch” that the 2012 Internal Audit described, and that was incorrectly believed to have been fixed by post-audit corrective actions.

Second, IrthNet did not evaluate the content of the information that users provided in the notes fields and other similar fields. As the Guidepost Report indicated, there were instances in which information that locators provided in those notes fields showed that the ticket was in some way handled improperly. For example, while the IrthNet response *Notification of New Start*

Time was used (and was counted by IrthNet) to indicate that the start time was renegotiated, a notes field on a *Notification of New Start Time* ticket might indicate that the locator attempted to renegotiate the start time by leaving a voicemail for the excavator, rather than actually speaking with and obtaining the agreement of the excavator. Using a voicemail in this way violated PG&E policy. In that case, the IrthNet user accurately recorded that he left a voicemail. But because IrthNet's late ticket counting logic looked only at the response, not the notes, IrthNet counted the ticket as timely even if there was no mutual agreement with the excavator on a new due time.

These two features of the IrthNet late ticket search logic meant that even when locators entered accurate, complete information about PG&E's response to a ticket that eventually was late, the IrthNet late ticket report would still be inaccurate. The problem was compounded, as discussed elsewhere, by locators who took advantage of the "glitch" and took actions in IrthNet that, while "accurate" in a literal sense, were designed to make late tickets be counted as timely.

To assess the magnitude of the late ticket data problems, Bates White developed a late ticket search logic that attempted to compensate for those shortcomings in IrthNet. To be sure, any analysis of data entries going back to 2012 has to rely on the data as it exists in IrthNet. Bates White cannot correct for potential inaccuracies in the data, but it did develop a more sophisticated search logic for evaluating that historical data.

ii. The Nature of Bates White's Late Ticket Analysis

The Bates White search logic employed assumptions that were designed to provide a reasonable assessment of the magnitude of the problem while overcounting rather than undercounting potential late tickets. Whereas the IrthNet logic had counted as timely any ticket that had any positive response prior to the due time, the Bates White logic recognized as timely only tickets that had *certain* responses prior to the due time. And even for tickets that had

certain responses ordinarily associated with a proper, timely response, Bates White categorized the tickets as timely *only* if the tickets contained certain additional indicia that they had been handled properly.

The Bates White logic, described in full in the Updated Bates White Report's Appendix,¹²² first reviewed each ticket in the pertinent population to determine the relevant due time. The due time presumptively starts out as the time entered by the excavator or the end of the two-business-day period following the 811 call, whichever is later. But if a locator responds to the ticket with the *Notification of New Start Time* response, the locator can establish a new start time. Importantly, in the Bates White logic, simply entering the *Notification of New Start Time* response was insufficient to actually create a new due time. To establish a new due time for the late ticket analysis, Bates White also required that the locator have used one of 14 specified terms in the notes fields that Bates White determined reflected an actual negotiation for a new due time with the excavator. If the locator properly negotiated a new start time with the excavator, but did not use one of the 14 specified terms, Bates White did not recognize the new start time in determining whether the ticket was late. In addition, if the notes field contained any voicemail-related terms—*call back*, *voice*, *message*, *left msg*, *v/m*, and so on—in combination with certain of those 14 terms,¹²³ the Bates White logic would not recognize the new start time. Thus, the logic did not recognize new start times that in fact may have been properly renegotiated but did not satisfy Bates White's strict terminology criteria.

¹²² Ex. 31 at 7-10.

¹²³ While a voicemail-related term would render most renegotiations invalid in the Bates White analysis, there were many instances in which a voicemail-related term reflected that a proper, mutually agreed renegotiation occurred at some point *after* a voicemail was left. Accordingly, if the ticket's notes field read, "Left a voicemail at 7 a.m. When excavator called back, he said that tomorrow 12:00 was fine," the Bates White search logic would identify it as a proper renegotiation because the voicemail-related term, *voicemail*, was followed by a proper, in-person negotiation term, *he said*. *Id.* at 8.

Once the Bates White search logic determined the due time, it evaluated the various responses that had occurred prior to that due time. Unlike the IrthNet logic, which treated all responses equally, the Bates White logic evaluated responses in three different categories. The first category of responses consists of those that Bates White determined were never, under any circumstance, sufficient to render a ticket timely. This category included responses such as *Notification of New Start Time* and *Inclement Weather*. That a locator may have selected one of those responses does not mean the locator acted dishonestly or inappropriately; those responses were appropriate under certain circumstances. But whereas IrthNet previously counted those responses, if entered prior to the due time, as sufficient to render a ticket timely, the Bates White search logic treated them as categorically insufficient.

The second category of responses consisted of those that could be sufficient to render a ticket timely, but only if certain additional information was present. Many responses in this category indicated, on their face, that the locator had done his or her job. Under the PG&E L&M Handbook, the response *Respond To A Phased Ticket* was used to indicate that the locator had actually put marks down for a phased job.¹²⁴ But while the response itself indicated that work had been performed, Bates White's logic looked for *additional* evidence in the ticket that work had been performed, like entries in the notes that actually described the work, or evidence that the locator had actually negotiated the phasing plan with the excavator.¹²⁵ As with the renegotiated due times, Bates White found this additional evidence sufficient only if it contained specified additional terms. That is, not only was Bates White conservative in requiring evidence in addition to the response itself, but Bates White's logic also relied on a restrictive list of terms

¹²⁴ SED Report Attachment 25 at SED-00423.

¹²⁵ Ex. 31 at 10.

to provide that additional evidence. Several other responses fell into this second category of responses, which Bates White's logic recognized as sufficient only if there was also specific additional evidence in the notes that they had negotiated a plan or marked the facilities.¹²⁶

Finally, Bates White had a third category of responses that were, on their own, sufficient to render a ticket timely. *Facility Marked*, for work completed, *No Remark Required*, for 811 calls on jobs that had already been marked, and *No Conflict*, when the excavation would not put PG&E facilities at risk, were sufficient to render a ticket timely, if entered prior to the due time. Certain other responses that indicated completed work, or had some similar administrative purpose, were also sufficient for this category.¹²⁷

iii. Continued Work and the Updated Results of Bates White's Late Ticket Analysis

While any system that tries to apply general rules to millions of tickets will inevitably have "errors" at least in one direction and likely in both directions, Bates White's heightened standards for categorizing responses as timely meant that the Bates White analysis adequately demonstrated the scope of the problem while intentionally overcounting rather than undercounting. Notwithstanding that limitation, the Bates White analysis showed that the scope of the late ticket undercounting problem was significant.

Bates White has continued to develop its late ticket counting logic since its original report. Some of its refinements have been relatively ministerial and intended to ensure that its

¹²⁶ *Id.* at 8, 10. Bates White's logic also required additional information before treating *Field Meet Performed*, *Respond To An Open Ticket*, *Responding To An Ongoing Ticket*, *Field Meet Requested—(Trans. Or Dist.)*, *No Response From Excavator* responses as sufficient to render a ticket timely, as well.

¹²⁷ Bates White's logic also treated *No Conflict—Cleared From Office*, *Duplicate Ticket*, *PG&E Response Not Required*, *ZZ Pole Test And Treat-Autoclosed*, *Excavated Before Marked*, *Located By PG&E Crew*, and *Responding To Complete A Phased Ticket* responses as sufficient to render a ticket timely.

search terms work as intended¹²⁸ or to better distinguish between tickets that shared the same ticket number but in fact reflected different 811 notifications.¹²⁹ Some improvements have come as Bates White identified additional search terms that could identify problematic conduct, like “left mess” for “left message,” or corrected for anomalies in the data. And one improvement came as Bates White identified an additional criterion that could identify potentially improper uses of voicemail.¹³⁰ Together, these additional improvements have resulted in an additional categorization of 7,087 tickets as late, compared to Bates White’s original May 2, 2018 Report. This increase does not mean that the original figures did not overcount actual late tickets; rather, it reflects Bates White’s continued efforts to ensure that the logic reasonably scopes the problem without undercounting.

Bates White’s updated analysis indicated that PG&E had several times as many late tickets as its IrthNet data had provided:

Figure 4.¹³¹ **Bates White Updated Late Ticket Analysis**

	2012	2013	2014	2015	2016	Jan-Feb 2017
March 14, 2019 Revised Late Ticket Analysis	13,687	29,298	29,340	36,414	31,468	5,719
Total Ticket Population	613,786	657,268	701,751	819,040	898,035	130,070
Percent Categorized as Late	2.2%	4.5%	4.2%	4.4%	3.5%	4.4%

¹²⁸ For example, Bates White improved its search logic to ensure that the search for “lm,” for “left message,” did not inadvertently capture words like “calm” or “palm.”

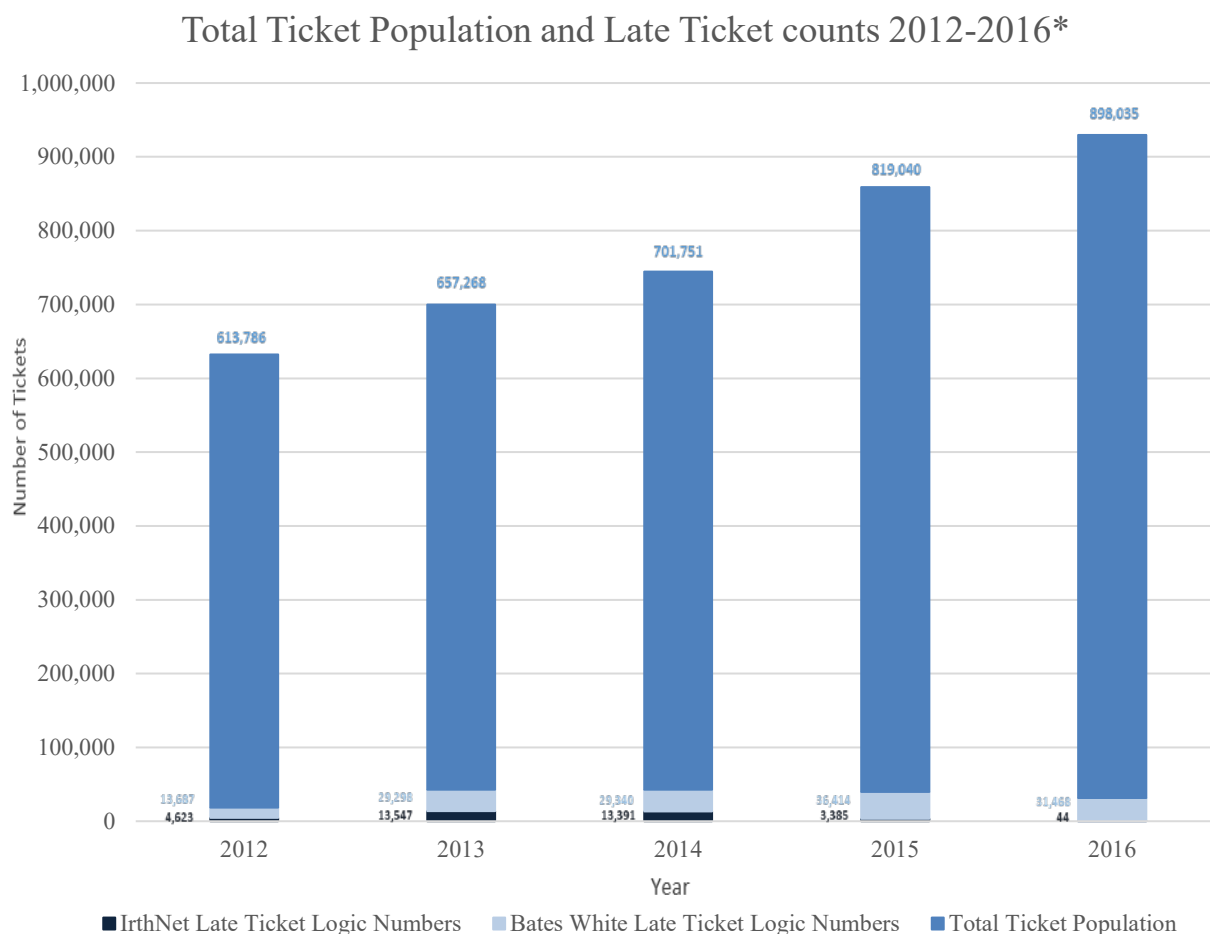
¹²⁹ Multiple tickets can share a ticket number because the 811 system “recycles” ticket numbers.

¹³⁰ Specifically, Bates White proposed to amend its definition of “Evidence of Negotiation” to reflect the following underlined requirement: “Evidence of Negotiation: Locator notes contain (i) at least one positive past-tense negotiation term *and no voice-mail related terms*, or (ii) more positive negotiation terms than negative negotiation terms and no voicemail-related terms.”

¹³¹ Ex. 31 at 5.

The Bates White results can be viewed relative to the total population and the initial late ticket counts from PG&E’s IrthNet system:

Figure 5. Total Ticket Population and Late Ticket Counts 2012-2016



**Because the IrthNet late ticket counting logic was modified in 2017, and because the Bates White late ticket analysis requested by SED covers January 2012 through February 2017, this chart presents the 2012 through 2016 data.*

The potential undercount, assuming that all of the late tickets identified by Bates White were indeed late, is represented in the middle layer of each bar in this Figure.

Of course, not all the tickets identified by Bates White were late, as Bates White noted that its search logic “count[ed] as late some tickets that may in fact be timely.” Indeed, the Bates White late ticket list, as a result of the logic it applied, is replete with “late” tickets that in fact

were timely.¹³² Neither Bates White nor PG&E performed an in-depth investigation of all the tickets on that late ticket list. Creating a full list of tickets that were “mis-categorized” in this analysis, or even determining the order of magnitude of such a list, would likely require a ticket-by-ticket review.

Bates White walked through its late ticket counting logic and methodology with SED in in-person and telephonic briefings. And in response to a question from SED, PG&E informed SED that PG&E “agree[d] with the methodology developed and applied by Bates White.”¹³³ As PG&E’s response made clear, that did not mean that it understood Bates White to have proved that any particular ticket was timely or late. To the contrary, PG&E was clear that “the development of rules to assess the timeliness of close to 4 million tickets necessarily requires the drawing of lines that reasonably but sometimes imperfectly fit the vast range of scenarios that are reflected in the various fields and notes contained in those millions of tickets.”¹³⁴ But while the Bates White analysis was not itself evidence of the timeliness or tardiness of individual tickets, the analysis was appropriate given the circumstances: Both PG&E and SED wanted to understand the potential scope of the problem. That is why “PG&E supported the development of [the] logic in this manner and believe[d] its results are reliable, while recognizing that any automated attempt to apply a single set of rules and criteria to millions of tickets ... will be imperfect.”¹³⁵

Given the nature of any rules-based analysis of this nature, PG&E believes there may be additional modifications that would improve Bates White’s late ticket counting logic.

¹³² Bates White gave examples of timely tickets that its logic categorized as late. *Id.* at 5-6.

¹³³ SED Report Attachment 66.

¹³⁴ *Id.*

¹³⁵ *Id.*

Accordingly, just as PG&E invited SED's comments on the logic used in Bates White's original report, PG&E welcomes additional input from the ALJ, the Commission, or SED regarding improvements to the Bates White logic, and can facilitate a technical workshop with Bates White's involvement upon request.

b. Bates White's Dig-In Analysis

Bates White's May 2 Report also provided information regarding the number of dig-ins that were associated with the tickets that Bates White's logic had identified as late. To do this, Bates White compared the ticket numbers in its list of tickets categorized as late with the ticket numbers that appeared in the single-most comprehensive list of dig-ins PG&E maintains (the Combined Dig-In File), which consolidated dig-ins from both PG&E's Master Dig-In File (MDF) and its predecessor. Bates White treated a dig-in as associated with a late ticket if the dig-in had a ticket number that matched the ticket number of a ticket that was categorized as late and was submitted within 28 days of the dig-in date.¹³⁶ Because the 811 system can re-use ticket numbers, Bates White determined to look at the instance of the ticket number that was closest in time to the dig-in date. As of May 2, this methodology determined that there were 195 dig-ins that were associated with late tickets.¹³⁷

Partially in response to inquiries from SED, PG&E has conducted additional work on this issue. First, while Bates White's May 2 Report looked at any dig-in in PG&E's comprehensive list of dig-ins that had a ticket number in the database, that database does not contain a ticket number for every dig-in.¹³⁸ Following the SED inquiries, PG&E agreed to review additional

¹³⁶ See Ex. 31 at 6.

¹³⁷ See *id.*

¹³⁸ This is typically for one of two reasons. First, in the vast majority of instances, a dig-in entry will lack a ticket number because a ticket number was never obtained by the excavator. Because the excavator

records to find ticket numbers for dig-ins for which the PG&E dig-in databases *did not* contain a ticket number, but for which there was some indication in the dig-in databases that a ticket number *might* exist for that dig-in. Bates White also expanded the methodology it previously used to match dig-ins with late tickets when the same ticket number appeared multiple times.

Second, as discussed above,¹³⁹ Bates White’s continued efforts to improve its search logic have resulted in the identification of additional tickets that it categorizes as late. Those tickets, too, are being evaluated for possible associations with dig-ins. These expanded analyses are ongoing, and will result in the identification of additional dig-ins, beyond the initial 195, that can be associated with late tickets. PG&E will provide the results of these expanded analyses when the analyses are complete.

Of course, the fact that a dig-in occurred on a ticket that was late does not mean that any delay in marking contributed to the dig-in. That is, for example, in a circumstance in which the locator marked the facility after the due date, but the marks were placed prior to the dig-in, the dig-in could not be classified as “caused by” the lateness. In that case, the dig-in would have had some other root cause. PG&E thus reviewed the dig-ins that Bates White initially identified and found that of the 195 dig-ins that were associated with late tickets, 38 dig-ins involved a late response which either may have contributed to the incident, or there is insufficient evidence to

never obtained a ticket, PG&E never had the ability to respond, and there was no ticket number to include in the dig-in database. Second, there are also instances in which the PG&E employee entering the dig-in into the dig-in database indicated a USA ticket had been issued for an excavation, or indicated it was unknown or uncertain if a USA ticket had been issued, but the employee did not have the USA ticket number available for the dig-in at the time he or she was entering the data. The USA ticket number may be subsequently determined, perhaps as part of a dig-in investigation; in that case, the ticket number might be recorded in an investigation report or other records related to that individual dig-in, and maintained in those separate records, but the recipient of that additional information typically would not have had reason to re-open the dig-in database to add the new information regarding the USA ticket number.

¹³⁹ See Part III.C.4.a.ii.

determine whether the late response may have contributed to the incident.¹⁴⁰ That figure, too, will increase when PG&E's expanded dig-in analysis is complete. In the other dig-ins on these tickets, a late response may have caused delays to the excavator's schedule or other frustrations, but the delay did not contribute to a dig-in, because PG&E had marks on the ground before the excavator began to dig.

IV. PG&E's Contentions

At this point in the proceeding, PG&E does not have certain evidence that SED collected during the over two-and-a-half years that it investigated the late ticket data issue, and the OII has not yet allowed PG&E to take discovery. While many facts are known, additional information gained in discovery will likely further develop PG&E's contentions.

Based on the information currently available to PG&E, the Company believes the evidence will demonstrate the following:

- (1) The issues described in the SED Report were absolutely inconsistent with PG&E's policies and training;
- (2) While the core of the conduct described in the SED Report was absolutely inconsistent with PG&E's policies and training, it was in large part driven by unintended consequences of PG&E's focus on improving its damage prevention procedures and reducing the dig-in rate;
- (3) While the issues described in the SED Report persisted longer than they should have, PG&E believes they persisted as a result of the Company's mistakes, not its artifice;

¹⁴⁰ SED Report Attachment 63.

(4) When it became apparent in March 2017 that the Company's previous efforts from 2012 through 2016 to address the issue had been unsuccessful, PG&E did not wait, but acted responsibly, transparently, carefully, and decisively; and

(5) PG&E has developed, provided to SED, and is implementing an effective and thorough Compliance Plan.

A. The issues that SED and PG&E have identified were inconsistent with Company procedures and policy.

1. Voicemail

PG&E prohibits the use of voicemail to renegotiate ticket start times, and has prohibited it for years. Locators who claimed to have renegotiated a ticket start time by leaving a voicemail did not comply with PG&E's standards.

PG&E began training locators not to use voicemail in December 2012. The training presentation the Company used in connection with some related technology changes was unambiguous:

ATTENTION: LEAVING A VOICEMAIL WITH THE EXCAVATOR NO LONGER APPLIES AS A VALID METHOD OF CONTACT FOR NOTIFICATION OF NEW START TIME. (It will still be shown as an available option until IRTM is able to remove it. Please do not use it.)¹⁴¹

PG&E went on to incorporate this prohibition in the next edition of its L&M Handbook, published in 2013. That handbook states, in clear terms, that "[v]oice message is NOT acceptable" when negotiating a new due time.¹⁴² PG&E's L&M Handbook has maintained that prohibition ever since.¹⁴³

¹⁴¹ SED Report Attachment 46 at SED-01553.

¹⁴² SED Report Attachment 25 at SED-00421.

¹⁴³ SED Report Attachment 26 at SED-00430.

2. Accuracy of Records

PG&E also prohibits employees from engaging in misconduct that undermines the accuracy of Company records. The SED Report alleges a range of issues, ranging from recording false information in IrthNet to a software “glitch” that compiled accurately recorded information into inaccurate reports. PG&E did not and does not condone this conduct, which violates the letter and spirit of PG&E’s Code of Conduct.

PG&E’s Code of Conduct emphasizes that “[a]ccurate records are an essential ingredient of PG&E’s operations.”¹⁴⁴ To protect their reliability, PG&E makes clear that any form of falsification of company records constitutes misconduct that violates the PG&E Code of Conduct.¹⁴⁵ While knowingly and affirmatively entering false information into PG&E records would clearly violate the Code of Conduct, PG&E also makes clear that “misstat[ing] facts or omit[ing] material information” from Company records is also a violation.¹⁴⁶ Taking an action in the IrthNet system for the purpose of making a late ticket appear timely violates PG&E’s Code of Conduct.

3. Purpose of Data

It is important to recognize, too, that PG&E did not stand to benefit from manipulation of late ticket data. Low late ticket counts would not bring the Company any awards or financial benefits, nor would high late ticket counts trigger any sanctions from regulators. The data was not among the information that regulators routinely require from utilities.

¹⁴⁴ Ex. 36 at 3 (citing to PG&E’s Code of Conduct that was in effect from 2013 to 2018, during the OII period).

¹⁴⁵ *Id.* at 3.

¹⁴⁶ *Id.* at 3. *See also id.* (prohibiting employees from “process[ing], enter[ing] into a system or approv[ing] a record or disclosure that [they] know is false or misleading”).

Rather, the data is used to inform PG&E management whether the Company’s resources are being allocated appropriately. Given the degree to which L&M staffing needs can vary over the years and over seasons, PG&E leaders rely on late ticket information to determine where its resources are adequate and where the L&M team needs additional support. Those are precisely the concerns that the 2010 and 2012 audits identified in describing the consequences of undercounting late tickets: Inaccurate data could result in “too few resources being provided to [L&M] personnel,”¹⁴⁷ and “does not allow management to promptly identify, diagnose, and correct potential resource shortages.”¹⁴⁸ And when PG&E worked to resolve issues identified in that 2012 Internal Audit, the Company emphasized that accurate late ticket data was *helpful* to the Company even if the total late ticket count was high. In 2012, in the words of the L&M “Process Owner”—a role at PG&E dedicated to ensure that appropriate processes are developed and followed—“We want to see real late tickets from now on to help us staff appropriately. . . . Late tickets are no longer looked at as a bad thing, but more as a sign that your area might need help.”¹⁴⁹ And as John Higgins, then PG&E’s Director of Gas Operations, explained it to L&M supervisors, correcting deficiencies in late ticket data “will help us identify areas where we are understaffed.”¹⁵⁰

Undercounting late tickets was not in PG&E’s interest, nor was it in the interests of the employees who did it. To the extent that late ticket counts were manipulated by employees who felt stretched thin by demanding workloads, their “solution” was to hide the problem, which in turn made it far less likely that they would get additional resources to relieve the workload.

¹⁴⁷ Ex. 5 at 2.

¹⁴⁸ SED Report Attachment 45 at SED-01543.

¹⁴⁹ Ex. 37.

¹⁵⁰ Ex. 38.

4. Incentives

As with other areas, the SED Report paints the issue of performance incentives related to late tickets too broadly and fails to provide much-needed context. As described below, while reducing late ticket counts to zero was one goal for some supervisors and other employees for a portion of the relevant period, it was just one goal among many. For the employees who did have a goal related to late ticket counts, the employee's overall financial incentives were more closely tied to more directly safety-focused metrics than to late ticket goals.

a. Individual Goals

Annually, each eligible employee is evaluated individually based on a number of specifically delineated performance goals. Each goal is evaluated and an employee's overall performance across all his or her goals is assessed to determine the employee's overall "Goal Rating" of "Exceeds Target," "Target," or "Below Target." An employee separately also receives a "Competency Rating," evaluating his or her core competencies in areas such as communicating with colleagues and accountability. All the employee's goals and the employee's competency rating are assessed in his or her performance evaluation, to arrive at the employee's overall Goal Rating and Competency Rating.¹⁵¹ This overall rating is linked to an individual's base-salary increases and other financial incentives.¹⁵²

For example, in 2014, 2015, and 2016, included among the annual goals of some Superintendents and Supervisors was a goal to reduce or eliminate late tickets. In 2015, some Superintendents' performance evaluations contained upwards of 11 goals, one of which was to reduce late tickets by 50% systemwide, by focusing on the worst performing divisions. In that

¹⁵¹ See Ex. 39 at 1-2.

¹⁵² *Id.*

same year, a goal of reducing “late tickets to zero” was one of at least 11 goals included in the performance evaluations of some Locate & Mark Supervisors.¹⁵³ This type of goal is consistent with the two-working-day response period that the law contemplates.

It is important to note, however, that these goals regarding late tickets were not the sole basis on which any employee was evaluated and rated. In fact, between 2012 and 2017, most L&M employee evaluations *did not* include a goal related to late tickets. When late ticket goals did appear, they were coupled with a number of other goals that were focused on more direct measures of safety. To the same extent that inaccurate late ticket data creates a safety issue, any effort to undercount late tickets would also reduce the employee’s ability to achieve his or her safety-related goals.

For example, both Superintendents and Supervisors in L&M often had other goals that specifically related to reducing at-fault dig-ins. Thus, the same Superintendents’ performance evaluations in 2015 included a goal to reduce at-fault dig-ins. The same is true for all Supervisors during that year who had a zero late ticket goal: Each of them were also evaluated on whether they could reduce at-fault dig-ins. In fact, throughout the period at issue in this proceeding, L&M personnel’s performance evaluations frequently included a goal to reduce at-fault dig-ins, even in those years in which a zero late ticket goal was not also included as a goal. And employees had other goals related to safety during the course of the OII Period, as well. In 2012, one of the same Superintendent’s performance evaluation also included goals to develop a

¹⁵³ Materials relevant to this paragraph are available at Ex. 40 and in connection with Directives 5 and 6, under which PG&E will identify and make the relevant materials available subject to appropriate protections for employee confidentiality. *See* Part V.B.

repeat-offender dig-in program and to reduce third-party dig-ins.¹⁵⁴ Any goals related to zero late tickets were therefore part of an overall message that the employee's performance expectations were to contribute to the reduction of dig-ins and the general safe operation of the L&M program.

Employee performance evaluations and incentive compensation are not based on any one goal in isolation, but on overall performance across all of his or her various goals.¹⁵⁵ When paired with safety-related goals, a goal to reduce late tickets could not have been reasonably interpreted as a directive to *fail* to mark: Failing to mark would work in direct opposition to the directive to reduce at-fault dig-ins. Employees could not ignore one goal or the other—and get an inappropriate reward based on their performance evaluations by, for example, falsely claiming to have eliminated late tickets while dig-ins increased.

b. The Short-Term Incentive Plan

One key employee financial incentive is the Company's annual Short-Term Incentive Plan (STIP).¹⁵⁶ The STIP is developed annually on a company-wide basis, and both executive and non-executive employees are evaluated (and receive incentive-based pay) based on the STIP metrics.¹⁵⁷ Annually, the Compensation Committee of PG&E's Board of Directors establishes

¹⁵⁴ Materials relevant to this paragraph are available at Ex. 40 and in connection with Directives 5 and 6, under which PG&E will identify and make the relevant materials available subject to appropriate protections for employee confidentiality. *See* Part V.B.

¹⁵⁵ *See, e.g.,* Ex. 39; *see also, e.g.,* Ex. 44.

¹⁵⁶ Employees can also receive one-time rewards and recognitions for any number of reasons. While PG&E is aware that there were instances in which employees appear to have received a one-time reward for reducing late tickets, PG&E's records of such awards do not consistently provide information on the specific reason for each award.

¹⁵⁷ *See* Ex. 45 at 5-6. Employees of PG&E Corporation and the Utility employed in non-represented jobs are eligible to participate in the Short-Term Incentive Program, as are employees in some union-represented jobs as defined in the applicable collective-bargaining agreements.

specific STIP metrics in the categories of safety, customer service, and financial performance by which the Company's overall performance will be measured.¹⁵⁸ After the metrics are determined, an annual STIP Scorecard is created. The scorecard assigns a weight to each metric and a target performance goal. The Company's STIP score for that year is then determined by evaluating the Company's actual performance on each metric during the year, based on the rating percentage and standards established at the beginning of the year.¹⁵⁹ STIP is not guaranteed and is considered "at risk" pay, and the Board of Directors has the authority to approve or deny STIP awards based on performance.

Like the employee's individual goals, the STIP prioritized and continues to prioritize safety across the Company's operations. Safety has long been the predominant factor in the STIP score. Between 2012 and 2014, safety was weighted as 40% of the STIP score.¹⁶⁰ Since 2015, safety has been the single largest factor in STIP performance goals, representing 50% of the total.¹⁶¹ In fact, PG&E's emphasis on safety in its STIP plan is an industry-leading practice. Based on data available to PG&E in 2017, only 50% of PG&E's peers have safety metrics in their annual compensation plans at all, and only one of those plans weights safety-related metrics at more than 10%.¹⁶²

Critically, beginning in 2013, one of the specific company-wide metrics was Gas & Electric Dig-Ins Reduction.¹⁶³ In 2015 and 2016, for example, gas dig-in reductions represented

¹⁵⁸ *Id.* at 6.

¹⁵⁹ *Id.* at 7.

¹⁶⁰ *See* Ex. 45 at AtchA-1 to AtchA-5.

¹⁶¹ *Id.*

¹⁶² *PG&E's Safety Journal: 2010-2017 and Beyond* at App1A-16 (Apr. 3, 2017) (attached as Appendix 1-A to PG&E's Prepared Testimony in proceeding I.15-08-019) (filed Jan. 8, 2018)), *available at* <http://docs.cpuc.ca.gov/PublishedDocs/SupDoc/I1508019/1067/204457310.pdf>.

¹⁶³ *See* Ex. 45 at AtchC-3 to AtchC-7; Ex. 46 at 2.

5% of the Company's total STIP score. The STIP in those years also measured gas emergency response time and the Company's ability to complete in-line inspections.

The STIP's focus on dig-in reduction meant that PG&E was incentivizing any activity that would *reduce* dig-ins and was creating a disincentive for activity that would *increase* dig-ins. Regardless of how strong the connection between dig-ins and late tickets may be, the bottom line is that to the extent that late tickets *do* increase the probability of damage, the STIP's focus on dig-ins incentivizes employees "not to have late tickets."¹⁶⁴ This does not mean the STIP incentivized employees to avoid having late tickets *appear on reports*, which obviously has no impact on reducing dig-ins, but to *accurately and timely locate and mark lines to reduce the risk of dig-ins*. The STIP is thus aligned to "encourag[e] people to perform *correctly* against late tickets."¹⁶⁵

It is worth noting that because the STIP sets the potential amount for all eligible employees across the Company, the STIP's emphasis on dig-ins incentivized all L&M personnel, including those *without* personal goals related to dig-ins, to prioritize safety. Dig-ins would negatively impact every STIP-eligible employee.

Throughout the 2012-to-2017 period at issue here, late ticket numbers were never a safety metric by which PG&E's company-wide performance was measured under the STIP. In fact, in encouraging L&M supervisors to ensure that data are recorded properly, the Company emphasized that aggregate late ticket numbers were *not* a STIP metric. Although the SED Report points to one 2012 email as evidence that "late ticket count was a metric for STIP until

¹⁶⁴ SED Report Attachment 13 at SED-00334, lines 15-16 (Stavropoulos).

¹⁶⁵ *Id.* at SED-00334, lines 18-19 (Stavropoulos) (emphasis added).

December of 2012,”¹⁶⁶ that is not correct, and the employee who wrote it was mistaken.

PG&E’s STIP scorecards for 2010, 2011, and 2012 clearly demonstrate that late tickets were *not* a metric.¹⁶⁷ Indeed, several PG&E employees testified in this proceeding that late ticket metrics were not taken into account as part of the STIP or other financial incentives.¹⁶⁸

c. The Long-Term Investment Plan

Finally, certain eligible employees may also receive variable pay through the Long-Term Investment Plan (LTIP). Under the LTIP, employees can receive performance-based shares and restricted stock units. The LTIP, too, both directly and indirectly prioritizes safety. The LTIP performance is directly linked to safety through the fact that 5% of performance-based shares are awarded based on the Company’s safety performance.¹⁶⁹ Indirectly, the LTIP is also linked to the Company’s safety performance because performance is also based on the Company value,¹⁷⁰ which is affected by the Company’s safety performance. Late tickets were not a component of the LTIP.

* * *

In short, employees’ performance and pay metrics emphasized safety metrics during the period at issue in this proceeding, and employees would not have been able to obtain base salary increases, STIP, or LTIP benefits solely by reducing their late ticket counts.

¹⁶⁶ SED Report at 27-28.

¹⁶⁷ See Ex. 45 at AtchC-1 to AtchC-3.

¹⁶⁸ See SED Report Attachment 57 at SED-02152, lines 9-23 (Walker); SED Report Attachment 35 at SED-00953, line 6 to SED-00954, line 9 (Soto); SED Report Attachment 33 at SED-00670, line 12 to SED-00671, line 24 (Dickson); SED Report Attachment 58 at SED-02302, lines 2-4 (White).

¹⁶⁹ Ex. 45 at 8.

¹⁷⁰ *Id.*

B. The issues that SED and PG&E have identified were unintended consequences of pro-safety practices.

1. Late ticket volume and staffing shortages were driven by substantial increases in ticket volume that were due in part to heightened 811 awareness.

PG&E recognizes that there have been times when its locator staff felt stretched thin, and the Company worked to provide resources to address those issues when possible.¹⁷¹ A variety of factors contributed to the staffing challenges, but perhaps the most important was the extraordinary increase in tickets that L&M staff were called on to mark.

PG&E's extensive efforts are discussed in detail in Part II.B.4. Here, it is important to note two things.

First, promoting 811 is unquestionably a pro-safety practice. As SED Director Elizaveta Malashenko explained at a Safety En Banc in 2015, "[E]very time I talk about safety and utilities, I always want to make a statement about ... the importance of calling 811." As she put it, promoting 811 calls "will ... have the biggest ... reduction of actual incidents that could lead to serious safety situations."¹⁷² What Malashenko emphasized in 2015 is precisely what PG&E was working to do at least as early as 2012.

Second, PG&E's efforts to promote 811 were successful. As L&M employees have described it to SED, ticket volume increased "year over year . . . , fold over fold,"¹⁷³ swelling "from a few thousand a week to 20-, 15-, 18,000 a week."¹⁷⁴ The data confirm it, as PG&E is

¹⁷¹ See Part III.A.

¹⁷² Ex. 47 at 156.

¹⁷³ SED Report Attachment 57 at SED-02155, lines 19-20 (Walker).

¹⁷⁴ SED Report Attachment 33 at SED-00673, lines 24-26 (Dickson).

now getting nearly twice as many tickets—and therefore twice as many opportunities to prevent a dig-in—as it was in 2012:

Figure 6.¹⁷⁵ Total Ticket Population, 2012-2018

	2012	2013	2014	2015	2016	2017	2018
Total Ticket Population	613,786	657,268	701,751	819,040	898,035	988,591	1,112,048

If PG&E were solely focused on keeping its late ticket totals down, it never would have undertaken the 811 promotion campaign. Driving up the number of 811 calls increases the likelihood of driving up the number of late tickets. But PG&E was not focused solely on its late ticket totals. It was focused on safety. The increase in ticket volume and the stresses on resources were by-products of a safety-driven initiative.

2. The “drive to zero” was driven by the goal of eliminating late tickets—which is what the law requires.

Much of the SED Report focuses on PG&E’s efforts during the period at issue in this proceeding to drive the number of late tickets down to zero. Needless to say, an emphasis on meeting goals, even when those goals are a stretch, is not itself problematic. Moreover, it is entirely appropriate to articulate goals that match regulatory requirements, like California Government Code §§ 4216.2(b)’s and 4216.3(a)(1)’s directive to respond to 811 tickets within two working days. Any less ambitious goal would invite criticism that the Company was not encouraging compliance with the law.

That said, as the Company’s workload increased, some L&M employees were given directives that they viewed as making zero late tickets the only acceptable outcome—which in turn led them to take inappropriate steps not to eliminate late tickets, but to eliminate the

¹⁷⁵ Ex. 31 at 5; Ex. 62.

appearance of late tickets in IrthNet's late ticket reports. For example, employees were told at times that the expectation was "that the only number we should see in the late ticket column is zero,"¹⁷⁶ and admonished, "Trust me, NONE of you want to be in the position of explaining why a single ticket went late."¹⁷⁷

PG&E agrees that these messages were not appropriately delivered and has corrected the improper messages and taken personnel actions in response. It is also important to recognize that stark directives like these were *not* the only messages being communicated to PG&E's employees. More appropriate messages that paired the Company's goal of reducing late tickets with the importance of accurate data were common. As the SED Report recounts, Chris McGowan sent an email to L&M Supervisors in December 2012 emphasizing that the Company "want[s] to see real late tickets from now on to better help us staff appropriately."¹⁷⁸ In 2012, John Higgins also stressed to a Supervisor, "If the ticket's late, it's late."¹⁷⁹ The SED Report also recounts testimony from a Quality Management employee indicating that, after she raised concerns that late ticket problems were not isolated to junior locators, Jeff Carroll and Joel Dickson communicated their expectation to Supervisors in May 2016 that "it was not an acceptable practice to move tickets into different statuses in order to stop them from going late."¹⁸⁰ The Quality Management employee also testified that Supervisors were informed that "if the tickets needed to go late, they needed to let them go late" because "that was the only way

¹⁷⁶ Ex. 48 at 1.

¹⁷⁷ Ex. 49.

¹⁷⁸ Ex. 37.

¹⁷⁹ Ex. 50 at 1.

¹⁸⁰ SED Report Attachment 52 at SED-01688, lines 2-5 (Burrows).

we were going to truly understand if we had the proper resources in place in order to address the tickets in the time frame that was required.”¹⁸¹

The conduct at issue in this proceeding appears, at least in part, to have been an unintended consequence of a well-intentioned message. Supervisors understandably focused their employees on performing in accordance with legal requirements, and Company officials repeatedly emphasized the importance of accurate data. Nevertheless, PG&E acknowledges that the emphasis on the “drive to zero” was communicated inappropriately at times, and in a way that led some employees to take inappropriate steps to make late tickets appear timely. But it is also clear that any belief that a “zero late ticket” objective was the only relevant metric was directly contrary to the *actual* combination of safety metrics by which PG&E’s employees were evaluated, the training provided to L&M employees, the clear directives in PG&E’s policies, certain messages articulated to employees orally and in writing, and the Company’s Code of Conduct.

C. The undercounting issues persisted as a result of the Company’s mistakes, not its artifice.

PG&E has acknowledged that the OII and the SED Report address instances of conduct at PG&E that fell short of the standards of integrity and ethical action to which the Company is committed. Particularly troubling to the Company is that the issue is not a recent one, but persisted over a period of several years. PG&E has worked hard to foster a culture of accountability, integrity, and transparency that reinforces the Company’s Code of Conduct. The SED Report describes conduct that directly contradicted those efforts, for far longer than it should have.

¹⁸¹ *Id.* at SED-01688, lines 9-14 (Burrows).

But the evidence at this proceeding will show that none of this was caused by, or persisted as a result of, nefarious or intentional wrongdoing by anyone at senior levels of the Company. To the contrary, while there were individual mistakes that allowed the late ticket data problems to continue, PG&E, its leadership, and most of its employees were acting reasonably based on the information available to them at the time.

1. PG&E had sound procedures and requirements in place, but they were not consistently followed.

First, as the SED Report acknowledges, PG&E had policies in place that prohibited the conduct SED describes.¹⁸² As discussed in Part IV.A.1, there cannot be any suggestion that PG&E failed to prohibit the use of voicemail to renegotiate start times, or misconduct that undermined the accuracy of its records. Indeed, not only did PG&E have procedures in place to ban that conduct, but PG&E deliberately gave its locator professionals the responsibility of developing those procedures, with the goal of making L&M personnel more educated and more invested in the proper processes.¹⁸³

2. 2010 and 2012 audits were ultimately closed based on changes that Internal Audit and others believed had fixed “the glitch.”

PG&E’s Quality Assurance and Internal Audit groups identified aspects of the late ticket data issues in their 2010 and 2012 audits, and Internal Audit agreed with the PG&E Gas organization on a set of corrective actions to close the issues that those reviews had identified. As discussed in Part II.B.4.f.ii, Internal Audit concluded that the “system glitch ha[d] been corrected.”

¹⁸² See, e.g., SED Report at 7-11 & Tbl. 2.

¹⁸³ See Part II.B.4.e.

But the Company's efforts to fix the glitch were in fact unsuccessful, and the issue should not have been treated as resolved. To be sure, the glitch was partly fixed. But the "fix" that was expected to resolve the issue left a similarly wide gap; IrthNet would now count as timely any ticket on which there was one positive response prior to the due time.¹⁸⁴ But because different responses in IrthNet can reflect a variety of different activities, this new, post-2012 search logic turned out to be as susceptible to manipulation as the pre-2012 search logic had been. Locators could still cause a late ticket to appear as timely simply by taking steps in IrthNet other than actually completing their ticket.

After the Quality Assurance audit in 2010 first identified the glitch, Internal Audit recognized its importance, saw that it had not been resolved, and pursued the issue in 2012. Since 2010, Quality Assurance and Internal Audit had communicated about the glitch and the Gas Operations organization's efforts to fix it. They were diligent, and neither organization was disposed to acquiesce in a corrective action that it considered insufficient. But the conclusion of both Gas Operations and Internal Audit that the issue had been resolved was incorrect.

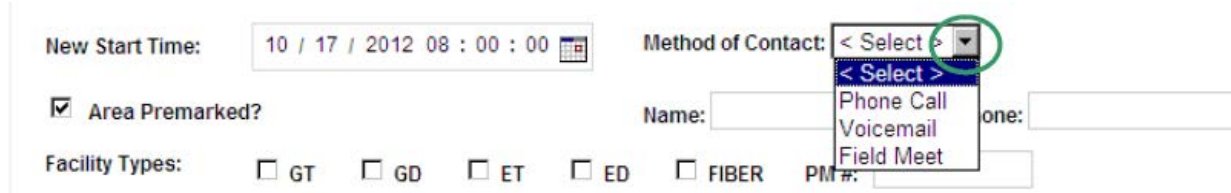
3. PG&E ordered the voicemail option removed, but it was not removed.

The use of voicemail to renegotiate ticket due times continued despite numerous attempts to prevent it. As explained in Part IV.A.1, voicemail had been clearly prohibited for this purpose since 2012, and locators were trained not to rely on it. But when locators entered in the IrthNet system that they had renegotiated a due time, they were prompted to also enter the means by which they had renegotiated it. And the IrthNet drop-down menu suggested that, despite the clear policies, voicemail was an acceptable means:¹⁸⁵

¹⁸⁴ SED Report Attachment 24 at SED-00409-10.

¹⁸⁵ SED Report Attachment 46 at SED-01566.

Figure 7. Voicemail Drop-Down

The image shows a screenshot of a web-based form. At the top left, there is a 'New Start Time' field with a date and time picker set to '10 / 17 / 2012 08 : 00 : 00'. Below this is a checkbox labeled 'Area Premarked?' which is checked. To the right of the time field is a 'Method of Contact' dropdown menu. The dropdown is open, showing three options: '< Select >', 'Phone Call', 'Voicemail', and 'Field Meet'. The 'Voicemail' option is highlighted in blue. A green circle is drawn around the dropdown arrow. Below the 'Method of Contact' field is a 'Name' field and a 'one:' field. At the bottom left, there is a 'Facility Types' section with several checkboxes: GT, GD, ET, ED, and FIBER. To the right of these is a 'PM #' field.

The presence of the voicemail option was confusing, and could suggest to locators that voicemail was permissible, notwithstanding the clear policies and training that prohibited it.

To eliminate the confusion, PG&E expressly instructed the IrthNet vendor to remove the voicemail option. The Statement of Work for the modification was titled, “PGE Remove VM,” and had the instruction, “*Customer is requesting to have the option of ‘Voicemail’ removed from the Method of Contact field.*”¹⁸⁶ There was no ambiguity; PG&E had instructed IrthNet to remove the voicemail option.

But the vendor did not remove the voicemail option. “Voicemail” remained a drop-down option in the IrthNet system until 2017, and locators continued to select it despite the clear training. Needless to say, PG&E should have reiterated the request to remove the voicemail option once it became apparent that the Statement of Work had not been completed. But the drop-down option’s continued presence was a mistake—not a falsification or intentional design.

4. Early reports about potential inaccuracies were viewed as by-products of larger problems in L&M that would be addressed by focusing on those larger problems.

The SED Report notes that in 2012, there were a number of indications that late ticket data were unreliable. The SED Report points to an October 2012 email in which John Higgins, then the Company’s Director of Gas Operations, observed that while PG&E’s formal reports

¹⁸⁶ Ex. 16.

described “an ‘on time’ ticket completion percentage of 99.2%, ... supervisors [told him] it’s more like 60%.”¹⁸⁷ The SED Report also cites a November 2012 presentation that contained both a 98.7% on-time rate and the statement, “We respond to approximately 60% of tickets on time.”¹⁸⁸

While reports like these from 2012 suggest that there was reason to be concerned with the reliability of the formal late ticket counts, three facts are necessary to put those statements in context. First, there is not a single piece of data to suggest that PG&E’s on-time performance has *ever* been in the range of 60%. Even under the Bates White analysis, which intentionally overcounted late tickets to assess the scope of the late ticket data problem, PG&E still completed between 95.5% and 97.8% of its tickets on time.¹⁸⁹ While supervisors may have expressed to Higgins that they felt stretched, the 60% figure cannot be taken literally.

Second, to PG&E Gas Operations leadership in 2012, the suggestion that a particular L&M data set was flawed and needed attention was not particularly surprising. To the leadership team—including Nick Stavropoulos, who came to the Company in 2011, and Jesus Soto, who arrived in 2012—L&M needed improvement overall, not just with respect to its data or any other isolated component. That is why the Company convened the 2012 SAR a few months after Soto arrived (and contemporaneously with the reports of 60% timeliness), and why Soto oversaw a broad, multifaceted strategy to reduce dig-ins. In that phase of the Gas Operations turnaround, reports of inaccurate L&M data were not viewed as reason for sustained attention to late ticket data; they were viewed as a mere symptom of much bigger challenges that should be addressed

¹⁸⁷ SED Report at 17.

¹⁸⁸ *Id.* at 26.

¹⁸⁹ Ex. 31 at 5.

comprehensively. The most obvious route to improving the data, in the view of those at the time, was to restructure the entire operation that was producing it.

Third, it is worth noting that the reports of inaccurate data in October and November 2012 came right after the 2012 Internal Audit that had expressly identified problems in the data. As his email shows, Higgins was appropriately troubled by the divergence between the 98.7% reported data and the 60% figure he heard from supervisors. But there was already an ongoing effort to implement better controls on the late ticket data being produced from IrthNet. And by the end of 2012, the Gas Operations organization had implemented corrective actions that were expected to resolve the issue. The anecdotal reports that arose during this period appeared to dovetail into an Internal Audit and corrective-action process that was ongoing and ultimately deemed resolved (albeit incorrectly, as described in Part IV.C.2).

5. Senior Leadership directed that the issue be addressed in 2016, but a vice president—now departed—did not follow through.

Information suggesting late ticket data problems also surfaced several years later, in 2016, as a result of work performed by PG&E's Quality Management team. Quality Management, which was established in 2011 as a successor organization to the Quality Assurance team that had conducted the 2010 Quality Assurance Audit, had a dedicated workstream focused on reviewing L&M work. Quality Management reviewed samples of completed L&M jobs, essentially "following on" after locators had finished their work and performing an on-site review according to a predetermined scorecard. The SED Report indicates that for some time, Quality Management personnel had observed that tickets they reviewed and determined to have been late did not show up in IrthNet's late ticket reports; the SED Report

further states that Quality Management personnel had properly expressed their concern about this issue to the L&M Director, Joel Dickson, and an L&M Superintendent, Jeff Carroll.¹⁹⁰

While the SED Report thus indicates that personnel within the L&M organization may have been aware of Quality Management's concerns prior to 2016, the first indication of Quality Management raising the issue with PG&E senior leadership above the L&M organization came in May 2016. At that time, Quality Management personnel informed Jodi Kubota, the Chief of Staff to Jesus Soto, that Quality Management had identified some late tickets that were not reported in IrthNet's late ticket report.¹⁹¹

Kubota and Soto immediately responded by arranging a meeting with Quality Management in Soto's office within a day.¹⁹² The meeting appears on Soto's calendar on May 24, 2016, with an instruction to Quality Management "to bring examples and other supporting info."¹⁹³ According to the testimony of a Quality Management data-quality manager who was present at the meeting, Soto took the issue very seriously:

Jesus [Soto] kicked ... the meeting off and said that, you know, late tickets are of the utmost importance to him because I think he said four years ago that he was in this campaign basically to get people to call before you dig. And he was doing a lot of communication with the contractor community and that he was asking them to call in, and they said, "Well, you know, you're—the problem we have is you guys don't come out in time." And he promised them at that time, he made a commitment, "If you call, we will come."

Jesus wants the detail, and he wants to make sure that he's not—that he has all his facts straight before he tackles it. So he wanted to know exactly how, what fields

¹⁹⁰ SED Report at 134-38; *see also id.* at 26 (citing SED Report Attachment 3 at SED-00039-40).

¹⁹¹ SED Report Attachment 52 at SED-01755, line 21 to SED-0156, line 5 (Burrows).

¹⁹² *Id.* at SED-01756, lines 12-26 (Burrows).

¹⁹³ Ex. 52.

and how we looked at it and how we came to that conclusion. And you know, he was very frustrated.¹⁹⁴

That week, Soto instructed John Higgins, by that time the Company's Vice President, Gas Transmission & Distribution Operations, to look into the issue.¹⁹⁵ As Soto explained in his Examination Under Oath:

Through e-mail and/or my town halls, I get a lot of—whether it's trucks or training or tools or union issues or—the [gamut] of things that come my way are substantial. So I have to rely on those that are part of my team to have the appropriate, you know, follow-up. And if there's deficiencies or gaps, to come back with a status and then move to "How do we fix it?"¹⁹⁶

That is, in the ordinary course of their work together, when Soto directed Higgins to look into a potential problem, Higgins was responsible for investigating the issue further and returning to Soto if the issue merited additional attention from Soto. If Higgins did not return to Soto, Soto understood that either the concerns were unfounded or Higgins, as Vice President, Gas Transmission & Distribution Operations, could resolve the issue without requiring Soto's assistance. Higgins understood Soto's directive and, a few days later, sought more information from Quality Management.¹⁹⁷ According to Quality Management personnel, Higgins said he also intended to speak with L&M Director Joel Dickson.¹⁹⁸ Higgins did not return to Soto following his discussions looking into the late ticket issues that Quality Management had described.

¹⁹⁴ SED Report Attachment 52 at SED-01756, line 26 to SED-01759, line 13 (Burrows).

¹⁹⁵ SED Report Attachment 35 at SED-00898, lines 14-21 (Soto).

¹⁹⁶ *Id.* at SED-00899, lines 5-14 (Soto).

¹⁹⁷ SED Report Attachment 52 at SED-01759, line 28 to SED-01760, line 20 (Burrows).

¹⁹⁸ *Id.* at SED-01760, line 17 to SED-01761, line 4 (Burrows).

D. The Company has taken responsibility for the issues that SED and PG&E identified.

The true nature of the problems with PG&E's late ticket data took too long to uncover, and there were times when PG&E missed opportunities to fix it—including in 2016, when a failure of follow-through allowed the issue to persist. But on March 23, 2017, through a Peer Review conducted through the AGA, PG&E senior leadership became aware that problems with L&M's late ticket data had persisted through efforts over the years to fix them.¹⁹⁹ Since that day, PG&E has demonstrated—from the top down—the culture of responsibility that it has been working to implement.

1. The Company has acted responsibly, investigating the issues to uncover their nature and extent and the factors that contributed to them.

Within days of the AGA feedback, PG&E was investigating their report that late ticket data was potentially being underreported.²⁰⁰ At the next leadership meeting of PG&E's Gas Operations organization, a few weeks later, Jesus Soto initiated a SAR to focus on the L&M data issues.²⁰¹ Within weeks, the SAR held its first meeting and was addressing the issues.²⁰² The Company acted swiftly upon receiving the AGA feedback, because—as contemporaneous emails make clear—the Company wanted to understand the Peer Review feedback.²⁰³ At PG&E, a SAR is convened by senior leadership, involving multiple organizations from within the Company, to bring the Company's resources to bear on solving a problem. It is a serious effort, involves extensive fact-finding, and here resulted in a Compliance Plan described further below.

¹⁹⁹ See III.C.2.

²⁰⁰ Ex. 32.

²⁰¹ Ex. 53.

²⁰² Ex. 35.

²⁰³ Ex. 32.

In this case, PG&E also retained third-party firms to advise it on the late ticket data issues. As described in Part III.C.3, Guidepost was given full independence and extensive access to PG&E people and information, so that the Company could understand what happened, when, and why—to better position PG&E to fix it. And PG&E also retained an economic consulting firm, Bates White, to assess the *scope* of the problem.²⁰⁴

The SED Report relies on the Guidepost and Bates White Reports extensively. The retention of Guidepost and Bates White was important because they have expedited PG&E's—and, it appears, given its reliance on their Reports, SED's—ability to understand the nature and extent of the problems. The retention and work of Guidepost and Bates White reflect PG&E's commitment to doing, and fixing, things the right way. They are consistent with PG&E's efforts to incorporate independent evaluations, and in other contexts, third-party certifications, to achieve objective, best-in-class practices.

2. The Company has acted transparently, engaging with SED and the Monitor.

The Guidepost and Bates White Reports are also noteworthy because PG&E committed, at the outset, to providing SED with the results of those reviews without knowing their conclusions. PG&E did not decide to share those reports only after seeing the final product and believing the reports cast the Company in a favorable light. To the contrary, PG&E committed to providing those reports in advance because it believed that it was the right thing to do in this case, and because transparency can promote accountability and safety. The decision was an outgrowth of PG&E's commitment to treating its regulators as partners in the shared objective of making the Company safer.

²⁰⁴ See Part III.C.4.

Indeed, PG&E worked to facilitate SED's and the Monitor's full understanding of the late ticket data issues long before it handed over the full, independent Guidepost and Bates White reports. At the outset, PG&E informed the Monitor of SED's preliminary investigation in 2017. PG&E informed both SED and the Monitor of the nature of the late-ticket underreporting issues as the Company explored them during the 2017 SAR, and informed both SED and the Monitor of Guidepost's retention to conduct an independent investigation of the issue's causes. PG&E also arranged briefings for the Monitor and for SED on historical findings, current workstreams, and planned corrective actions, including an in-person briefing by Bates White to facilitate SED's understanding of Bates White's late ticket logic, its methodology, and its limitations.²⁰⁵

But SED and the Monitor were not merely informed of the fact-finding process as it proceeded. They were invited to be a part of it. PG&E invited the Monitor and SED to hear Guidepost's real-time summaries of the interviews before the Guidepost Report was finalized, and to ask any questions of Guidepost that they wanted to ask while the investigation was ongoing. And while PG&E itself abstained from participating in the dozens of employee interviews, to facilitate Guidepost's independence, the Company *invited SED and the Monitor* to participate in those interviews. SED opted to conduct its own Examinations Under Oath, generally without PG&E or its counsel present,²⁰⁶ rather than participating in the Guidepost interviews; but SED did request and was provided selected documents from the Guidepost materials. The Monitor accepted PG&E's invitation in full, and attended or participated in more than 20 witness interviews and had access to tens of thousands of pages of documents that it

²⁰⁵ Ex. 54.

²⁰⁶ SED did permit counsel to be present at the EUOs of PG&E officers Nick Stavropoulos and Jesus Soto. *See* SED Report Attachments 13, 35.

requested from Guidepost's materials. With respect to the interviews, PG&E provided SED and the Monitor with *greater access to the Guidepost investigation than PG&E itself had*.

The transparency with which PG&E has acted on this issue is a core part of the culture that PG&E is committed to developing. As PG&E's Code of Conduct prominently states:

Our Culture

We put safety first.

*We are accountable. We act with integrity, transparency, and humility.*²⁰⁷

PG&E believes that the more transparently it can act, the more accountable it can be, and the safer it can become. No organization is perfect, and PG&E has made clear that the SED Report describes conduct that was unacceptable and was not, and is not, condoned by PG&E. By sharing Guidepost's and Bates White's findings and analyses with SED and the Monitor, PG&E has welcomed whatever insights those entities can provide in the course of exercising their regulatory and oversight obligations that can help PG&E become a safer, better company.

3. The Company has acted carefully in estimating the potential scope of the problem.

In addition to retaining Guidepost to help PG&E understand the nature and causes of the late ticket data problem, PG&E also brought in the economic consulting firm Bates White to help it understand the scope of the problem. As PG&E previously described the Bates White methodology to SED, "the development of rules to assess the timeliness of close to 4 million tickets necessarily requires the drawing of lines that reasonably but sometimes imperfectly fit the vast range of scenarios that are reflected in the various fields and notes contained in those millions of tickets."²⁰⁸ As a result, in developing any system of rules to be applied across

²⁰⁷ Ex. 1 at 12.

²⁰⁸ SED Report Attachment 66.

millions of complex records, there will be inevitable questions about where to “draw the line.” Here, PG&E instructed Bates White to employ assumptions that were more likely to overcount late tickets than undercount them. While any line will have exceptions in either direction, Bates White’s rules were designed to produce a good-faith analysis of the potential scope of the problem—even if it meant that timely tickets were counted as late, too.

The Bates White approach was valuable not because it produced a definitive list of late tickets, or produced evidence that any particular ticket is late. It did not, and as PG&E has informed SED,²⁰⁹ and as the Bates White Report itself states expressly,²¹⁰ that interpretation of its work is incorrect. Bates White’s late ticket list includes tickets that were not in fact late. To determine whether any particular ticket is late, that ticket would need to be reviewed. But given the importance of the issue, an approach that carefully and responsibly assesses the scope of the problem was an appropriate step for PG&E to take; knowing whether the previous, IrthNet late ticket report was off by tens or by thousands was important information. That is why PG&E informed SED that “PG&E supported the development of logic in this manner and believes its results are reliable”—recognizing, at the same time, the limitations of a methodology that attempted “to apply a single set of rules and criteria to millions of tickets and their various fields and notes.”²¹¹

4. The Company has acted decisively since learning that the issue had not been previously addressed as expected.

As discussed previously, there were moments during the period at issue when some information relating to the late ticket data issues became known outside the Company’s L&M

²⁰⁹ *Id.*

²¹⁰ *See* Ex. 31 at 5-6.

²¹¹ SED Report Attachment 66.

organization. PG&E responded at those times by implementing corrective actions that it believed would fix the issues, by developing a multifaceted Damage Prevention strategy, by directing a vice president to investigate the information, and taking other steps. When PG&E leadership became aware in March 2017 that those efforts had been unsuccessful, the Company took clear and decisive actions.

The actions began with Jesus Soto's convening of the SAR, as described in Part IV.D.1, which held its first meeting in May 2017, within weeks of the news coming out of the AGA Peer Review. PG&E ordered changes to the IrthNet late ticket logic in June,²¹² and they were implemented by the vendor.²¹³ While the full Compliance Plan took longer to develop, PG&E took action to implement many of its requirements while other elements were still in development.²¹⁴

PG&E also took decisive personnel actions after receiving Guidepost's analysis. As a result of the Company's investigations into L&M late ticket issues, three managerial employees who had responsibility over the L&M program during the relevant period are no longer employed by PG&E. The Vice President, the Director, and the Superintendent formerly overseeing the L&M organization were relieved of their respective job duties effective June 1, 2018. The Vice President and Director resigned their employment effective July 1, 2018, and September 1, 2018, respectively. The Superintendent retired effective July 1, 2018.

These managerial employees had responsibility for ensuring that L&M data-integrity standards were met and for making appropriate notifications or corrective actions if the data were

²¹² See Ex. 55.

²¹³ Ex. 56.

²¹⁴ Appendix B.

unreliable for any reason. PG&E determined that these employees failed to notify others that the L&M data were not accurate, and thus failed to meet performance expectations.

E. The Company has implemented, and continues to implement, a comprehensive Compliance Plan to address the issues identified by SED and PG&E.

PG&E has used the reviews that it has undertaken since the issue was identified in 2017 to improve its L&M program and to further reduce its dig-in rate. The SED Report, the Guidepost Report, and PG&E's own 2017 SAR—which will be collectively referred to here as the “Post-2017 Reviews”—identified a number of problems and factors that contributed to the undercounting of late tickets. The Compliance Plan that PG&E has developed since the issues were identified is tailored not merely to improving PG&E's late ticket data, but to addressing the factors that those Post-2017 Reviews identified as contributing to them.

PG&E continues to develop and update the Compliance Plan, the most recent update of which is attached as Appendix B. That updated Compliance Plan reflects that PG&E has now completed 23 of its 30 corrective actions, and has replaced one corrective action with another.²¹⁵

The Compliance Plan that emerged from the 2017 SAR and Guidepost reviews consists of 30 corrective actions across five core areas identified in the reviews. The corrective actions not only addressed the issues identified in the PG&E and Guidepost reviews (and now in the SED Report), but will contribute more generally to making PG&E a better and safer company. In some places, the goals are broad, and involve company-wide cultural initiatives that will address issues that played a role in the undercounting problems. Most of the corrective actions

²¹⁵ A version of this Compliance Plan, dated February 20, 2019, was submitted to SED on March 6, 2019. That Plan reflected PG&E's replacement of a corrective action related to Processes & Procedures with another. The Compliance Plan submitted here reflects no further substantive changes, but is dated March 14, 2019 to mark small formatting adjustments.

focus on L&M specifically. For example, PG&E has fixed the technological issues—the glitch—that caused its IrthNet ticket-management software to count certain late tickets as timely. The Compliance Plan also enhanced PG&E’s internal controls by imposing enhanced quality reviews of L&M ticket data on an ongoing basis, and provided for a review by PG&E’s Internal Audit team to ensure that all of the Compliance Plan’s corrective actions were and are being properly implemented.

Of the Compliance Plan’s 30 corrective actions, 23 are complete, and the others are in progress and are being closely monitored. The Compliance Plan developed corrective actions in four categories designed to align with factors that contributed to the undercounting problems: tone and culture, addressed in Part E.1; the ability to respond to tickets in a timely and proper fashion, discussed in Part E.2; the ability to maintain accurate late ticket data, discussed in Part E.3; and the ability to recognize inaccuracies in timeliness data when they arise, discussed in Part E.4.

1. Improvements to PG&E’s Tone and Culture

The Post-2017 Reviews describe a culture in which supervisors put undue pressure on locators to not have one late ticket. This pressure, the reviews suggest, led locators to use “workarounds” that made some late tickets appear as timely. At the same time, the Guidepost and SED Reports indicate that some supervisors were aware of locators manipulating the IrthNet system so that certain tickets that should have been classified as late appeared timely.

PG&E’s SAR found culture issues to be a root cause of the issues that occurred. Accordingly, PG&E’s Compliance Plan emphasizes improvement of the culture across the Company. The Compliance Plan found that PG&E needs to continue its crucial focus on its

“Speak Up, Listen Up, and Follow Up” culture and its strict non-retaliation policy.²¹⁶ Central to this enterprise-wide initiative is an ongoing emphasis on safety as the most important consideration in every facet and level of PG&E’s operations. In the course of the SAR, PG&E ramped up these efforts across the Company. Beginning in October 2017, PG&E implemented ongoing trainings and initiatives throughout the organization that have been focused on its “Speak Up, Listen Up, and Follow Up” culture and its strict non-retaliation policy. PG&E has emphasized to employees at every level of the organization that they should speak up about any issue without fear of retribution or retaliation.

PG&E repeatedly trains and emphasizes to employees that if they perceive a safety issue or some form of misconduct, they should speak up. PG&E encourages employees to report these issues in a variety of ways, including to their direct supervisors, PG&E’s Chief Compliance Officer, and the Company’s court-appointed Monitor. Reports may be filed anonymously, and PG&E rewards and recognizes those who speak up—as Nick Stavropoulos described in his EUO, when recounting sending an all-employee email after PG&E was fined \$16.8 million for an issue that it self-reported, praising the employee who came forward with the issue that resulted in the fine.²¹⁷

PG&E understands that fostering this culture takes continual effort. To reinforce this initiative, the Compliance Plan calls for PG&E to conduct listening sessions with employees throughout the organization in open and candid dialogue.²¹⁸ PG&E directed every supervisor in the Company to have a one-on-one conversation with each employee reporting directly to that

²¹⁶ Appendix B.

²¹⁷ See SED Report Attachment 13 at SED-00321, line 5 to SED-00322, line 2 (Stavropoulos).

²¹⁸ Appendix B.

supervisor in the first or second quarter of 2018. More than 99.8% of PG&E's employees participated in these conversations.

In addition to these enterprise-wide initiatives, PG&E focused on improving the culture specifically in its L&M operations. In October 2017, Mel Christopher, Vice President of Gas Transmission and Distribution Operations, held an "all-hands" meeting of locators, supervisors, and superintendents, at which he discussed the importance of accurate recordkeeping.²¹⁹ PG&E also conducted listening sessions with L&M employees at various levels and locations.

PG&E supervisors at all levels are conducting more frequent field visits to the Company's locator yards to engage the workforce and identify issues so they can be escalated, if appropriate.²²⁰ Within L&M, anyone at a director level or above makes it a priority to meet with field employees to discuss safety, PG&E's Speak Up Culture, and resource levels. During these field visits, supervisors also ask for feedback about how field employees believe the Company is doing. Gas Transmission and Distribution Operations Vice President Mel Christopher makes it a point, every week, to visit at least one, and often several, of the 120 field location yards.

In addition to the field visits, L&M field employees now have bi-weekly progress calls with their director. The purpose of the calls is to share best practices, issues, and concerns, and to promote transparency and accountability at all levels. The subjects of these calls have ranged from best practices to lessons learned from late tickets and dig-ins to PG&E's recent bankruptcy filing. The calls are also designed to promote PG&E's Speak Up culture, and deliberately employ a *what* went wrong, not a *who* was wrong, approach.

²¹⁹ *Id.*

²²⁰ *Id.*

PG&E is aware that speaking up is only as effective as leaders' willingness to listen to the employees and to follow up on the issues they raise. To that end, PG&E has continued to promote its Corrective Action Program (CAP), which allows employees to report issues anytime and anywhere, and anonymously if they desire. Once the report is in the system, PG&E will assign the issue to an "owner" to resolve it. Once the owner believes the issue is resolved, the reporting employee is asked whether he or she believes the issue was resolved appropriately. If the reporting employee does not believe that the issue has been resolved satisfactorily, the owner is prompted to reevaluate the issue. The reporting employee is asked to rate the resolution of the issue and the owner's response using a star system. While implemented before the 2017 L&M SAR, the CAP application is designed to reinforce and encourage the Speak Up, Listen Up, Follow Up culture that the Compliance Plan promoted.

PG&E is improving the culture within L&M in other ways. In March 2018, based on locators expressing concerns about the pressure they felt to respond to tickets in a timely way, PG&E began a review of L&M performance metrics and targets, with an eye on reasonableness and attainability that would avoid the unintended consequences of L&M's "drive to zero."²²¹ PG&E leaders are creating a culture in which the effort and progress toward the goal of having zero late tickets are the most important factors, even if the goal is not always achieved. To that end, PG&E no longer measures locators' performance based on late tickets. Instead, if a locator has a late ticket, supervisors will frame the discussion around the process that led to the ticket becoming late and how to improve. Locators are not punished simply because a ticket was late.

²²¹ Appendix B.

2. Improvements to PG&E's ability to respond to tickets in a timely and proper fashion

PG&E recognizes that one of the root causes of the late ticket undercounting issues was locators' inability to respond to tickets in a timely fashion based on the volume and allocation of tickets. PG&E has implemented several solutions to fix this problem.

First, PG&E took measures to improve its forecasts of L&M needs. Beginning in March 2018, PG&E developed a work plan that enabled it to project tickets and analyze staffing requirements over the course of 12 months. This analysis includes forecasting the number of internal employees and external contractors needed to properly perform future L&M duties.²²² Among other forecasts, the work plan estimates the number of upcoming tickets by division, the types of tickets, and the number of available locators. PG&E has found the work plan helpful, and the Company continues to use it.

PG&E's projections in the work plan are already helping PG&E adapt its staffing levels to meet the ever-increasing number of tickets. The number of actual tickets and projection of future tickets allowed PG&E to recognize that the Company should add to its number of available locators. As of January 2019, PG&E had 32 contractors available to perform L&M functions, and PG&E was in the process of hiring 10 more—a significant increase from the 14 contractors the Company had available in January 2016. PG&E also recognized that it should hire more internal employee locators, and continues to increase its employee locator headcount.²²³

PG&E knows that hiring more employees and contractors is not enough. It must also train the new locators to perform their duties correctly. Accordingly, PG&E has enhanced its

²²² *Id.*

²²³ *See* Part III.A.

L&M training curriculum and qualifications course for new locators. Prior to January 2018, the training lasted one week and required trainees to spend 80 hours conducting “ride-alongs” with experienced locators. While the ride-alongs were intended to benefit trainees by placing them with experienced locators for a set number of hours, the extensive ride-along sessions with various experienced locators led to inconsistency and confusion. The new employee training program is now seven weeks long, with extended classroom time. The training program replaces ride-alongs with guided field practicums, which are standardized to allow for consistency in training.

In addition to adding resources, PG&E has utilized its personnel more effectively. While this approach appears efficiency-focused, it has important compliance consequences: To the extent that ticket volume and personnel shortages created conditions that led locators to make inappropriate choices, these process efficiency-focused changes are designed to alleviate the conditions that led to the late ticket data problems. Prior to February 2018, tickets were sent to a centralized system that assigned them to an electronic folder based on geographic location. Locators were assigned to manage each folder, which resulted in some locators working ahead of schedule and some locators falling behind. In February 2018, PG&E began developing a daily work plan that enables timely L&M activities by allocating resources to priority work.²²⁴ Instead of tickets being assigned primarily by location, they now are arranged by district and priority. Typically, each locator works on tickets in one folder (occasionally two locators are assigned one folder if there is high volume). Every folder is monitored by someone designed as the “Lead.”²²⁵ The Lead is responsible for determining the priority level of tickets and creating a daily plan for

²²⁴ Appendix B.

²²⁵ Ex. 57 at 9.

dealing with the tickets.²²⁶ Within the folders, PG&E uses a color-coding system to track the tickets based on priority. The system places the highest-priority tickets on top and the color of each entry changes as the deadline to respond to the ticket approaches. Supervisors, Leads, and locators can look into the locators' folders at any time to track the tickets and their priority. PG&E instructs locators to check their folders each day, after lunch, to determine whether there is too much work for them to complete all tickets due by the end of the day.²²⁷ If so, the locator is instructed to call the excavator for any ticket that is due to be completed that day and attempt to renegotiate the ticket.²²⁸ If the locator is unable to renegotiate the ticket, the project will receive higher priority over one that has been renegotiated.²²⁹ Near the end of the day, the Lead will re-assign locators to the folders and tickets needing attention.²³⁰

With this system, PG&E can assign locators to complete the most important and pressing tickets first, which makes PG&E's L&M efforts more efficient and creates a more even distribution of work among the locators. PG&E rolled this initiative out to the field in May 2018. It has helped reduce late tickets across the system.

3. Improvements to PG&E's ability to maintain accurate late ticket data

PG&E has also taken several steps to improve the accuracy of its late ticket data. Some of these steps are cultural, and some are technological.

²²⁶ *Id.*

²²⁷ *Id.* at 11.

²²⁸ *Id.*

²²⁹ *Id.*

²³⁰ *Id.* at 12.

a. Cultural

From a cultural perspective, PG&E has taken steps to reinforce the importance of data integrity with its employees.²³¹ PG&E's SAR-related efforts, which began in April 2018, include emphasizing accurate data reporting during a system-wide gap training focused on individual locators in the field in June 2018 and at all employee trainings.

b. Technological

From a technological perspective, PG&E has made and is making several important changes to its ticket-management software.

The most significant is PG&E's decision to move away from IrthNet and to develop a new platform. Intended to replace IrthNet, which in many ways is outdated,²³² the proposed new platform will include a cellular-phone application, which should contribute to user ease and efficiency. The platform will store and filter data and tickets on the cloud, starting from when PG&E initially receives the ticket from 811 and continuing through the assignment of the ticket to the locator and performance of the work by the locator. The platform is currently under development, and PG&E will not phase out IrthNet until it is confident that the new application is performing successfully and employees have been properly trained on its functionality.

While PG&E develops the new platform, it has made interim enhancements to improve IrthNet's ability to provide accurate late ticket counts.

Among other changes, at PG&E's direction IrthNet has removed the voicemail option from the ticket-management software. As a result, locators can no longer use a drop-down menu to indicate that they left a voicemail message for an excavator. While PG&E had long prohibited

²³¹ Appendix B.

²³² See Ex. 58.

the use of voicemail to renegotiate a ticket, its appearance in a drop-down menu in IrthNet led some locators to believe it was permitted.

IrthNet now also requires locators to input the name and number of the excavator with whom they spoke when attempting to renegotiate a ticket. IrthNet now also automatically sends a confirming email to the excavator if a locator informs IrthNet that a ticket has been renegotiated. As a result, an excavator who believes that he or she did not agree to a renegotiated ticket can call 811 to resolve the discrepancy. This email sent to the excavator also creates a written record that can assist in making at-fault determinations when dig-ins occur, which in turn will help reduce dig-ins themselves.

The “Inclement Weather” response was also eliminated. PG&E now instructs its locators to treat inclement weather like they would any other reason to renegotiate a due time, by contacting the excavator directly and reaching agreement on a new timeline.

PG&E has instructed IrthNet to prevent the inappropriate phasing of tickets. The Post-2017 Reviews indicated that locators sometimes used IrthNet’s “phased ticket” responses inappropriately. Locators seeking to phase tickets must answer three questions affirmatively before they can input in the system that the ticket should be phased:

Figure 8. Screenshot of Phasing Questions

The screenshot displays a web form titled "Ongoing Response". It contains several input fields and dropdown menus. Two sections are highlighted with orange boxes. The first highlighted section contains a dropdown menu labeled "Response (required)" with the option "Respond to a Phased Ticket" selected. The second highlighted section contains three questions, each with a dropdown menu: "Are you On-Site? (You must be On-Site)" with "(Select ...)" selected, "Have you provided marks? (You must provide marks)" with "(Select ...)" selected, and "Have you had positive contact with the excavator to review the Phasing Plan? (You must review the Phasing Plan with the excavator)" with "(Select ...)" selected. Other visible fields include "Locate Time (must be in the past)" (empty), "Unit of Work (numbers only)" (containing "0"), and a checked checkbox for "Area Premarked?".

First, the locator must report that he or she is on site. This answer gives PG&E the assurance that the locator has actually reviewed the site and met with the excavator. Second, the locator must state that he or she has provided some markings at the site. This second answer will show that the locator did some work while he or she was present, which is an indication that the locator had some time to provide markings and was not asking for the phasing of tickets because the locator was running late. Third, the locator must answer that he or she has made positive contact with the excavator to review the phasing plan. These answers provide PG&E with the assurance that the locator has actually conducted an on-site field visit, had time to mark some of the site, and had appropriately communicated with the excavator.

PG&E created another check in the process by having IrthNet communicate to the excavators when an electronic status change is added to the ticket, such as a completed ticket, a renegotiated ticket, or a phased ticket. The excavator will receive an email with the information

contained in the status change. If the excavator does not agree with the information in the communication, the excavator can call 811 to inquire.

These interim improvements in IrthNet are directly responsive to the problems identified in the Post-2017 Reviews and will improve the reliability of PG&E's late ticket data until its new platform becomes fully operational. PG&E has also deployed system-wide gap training to its locators, including training on how to properly phase and document tickets on IrthNet.²³³

4. Improvements to PG&E's ability to recognize and report the inaccuracy of timeliness data

PG&E understands that its controls did not effectively catch and respond to the L&M ticket issues identified in its reviews and the SED Report. In connection with the 2017 SAR, PG&E took steps to improve its controls, which will help PG&E recognize and report if there is a problem with the accuracy of timeliness data.

First, PG&E has revised the logic with which IrthNet identifies late tickets. Whereas IrthNet previously *undercounted* late tickets, by counting as timely any ticket that had any positive response prior to the due time, PG&E has worked with its vendor so that IrthNet initially *overcounts* late tickets, by counting as late any ticket that has any positive response that is after the due time—even if the ticket also has a response prior to the due time indicating that the ticket was timely marked. Unlike Bates White's analysis, which distinguished between different types of responses, the IrthNet software—which PG&E will rely on until its new system is operational—does not distinguish between types of responses. So PG&E has worked with IrthNet to adopt this revised late ticket counting approach that captures more tickets.

²³³ Appendix B.

Once IrthNet has identified this broader universe of potentially late tickets, PG&E's Quality Control team then reviews tickets preliminarily marked as late to filter out any that were in fact timely handled. This review also examines late tickets for trends or issues that PG&E needs to address. After this review, Quality Control issues a report that accounts for all potentially late tickets by location, the reason for it being potentially late, and whether a ticket was properly considered late or phased.²³⁴

One practical consequence of this revised approach is that PG&E now individually reviews *any* ticket that is marked as phased. Now, when a locator indicates that a ticket will be completed in phases, IrthNet's late ticket counting logic preliminarily classifies the ticket as late. Quality Control reviews all phased tickets to determine whether the locators appropriately phased the ticket and documented the project correctly. Only if the answer to these questions is yes, and if the project was done in a timely fashion, will Quality Control change the coding of the ticket to reflect that it was completed on time. This system eliminates the incentive to inappropriately phase tickets, since they will all initially be characterized as late and will receive scrutiny. As a result, PG&E is better able to produce more accurate data regarding PG&E's actual L&M performance.

Second, in addition to Quality Control's manual review of these tickets that are preliminarily marked as late, Quality Control also reviews a random sample of 200 tickets that were counted as *timely*, to see if any should have been marked as late.²³⁵ Quality Control's review is records-based and does not include a field component. Of the thousands of tickets that

²³⁴ Ex. 59.

²³⁵ Appendix B.

were counted as timely since this review process was overhauled, Quality Control has not found any tickets that IrthNet counted as timely but that should have been counted as late.

PG&E's controls themselves have multiple layers, as the Company's Quality Control, Quality Management, and Internal Audit all perform functions to determine whether there are gaps in PG&E's L&M performance.

Third, PG&E has enhanced the field-based review that the Company's Quality Assurance team—a distinct unit from Quality Control—undertakes. Quality Assurance was the unit that conducted field reviews of completed tickets and observed that some tickets that were late in reality were not appearing on PG&E's late ticket report. As of December 2018, Quality Assurance had conducted more than 1,500 reviews of tickets under its enhanced processes. Of the 1,500, Quality Assurance found only two tickets were wrongly characterized as timely, and there was only one occasion in which a locator failed to renegotiate a start time properly.²³⁶ These issues occurred early in 2018 before many of the corrective actions were in place. Simply put, neither Quality Control nor Quality Assurance have found that the issues described in PG&E's reviews and the SED Report are still present.

Meanwhile, PG&E's Internal Audit group is reviewing PG&E's implementation of the Compliance Plan's corrective actions, to ensure that they are effectively fixing the problems that caused the SAR. While the 2017 SAR is being wound down, PG&E has created control points that, if activated, would prompt the SAR to reopen so that PG&E would be able to perform a comprehensive review of the breakdown and develop additional corrective actions.²³⁷ The Company determined that the following events would trigger the reopening of the SAR:

²³⁶ Ex. 60 at 5.

²³⁷ Appendix B.

- A determination that the SAR needs to be activated to support the completion of the remaining two open corrective actions.
- Quality Assurance, Quality Control, or Internal Audit identify a late ticket through their assessments, but that late ticket does not show up on PG&E's late ticket dashboard.
- Field employees identify a gap (through CAP or escalation) in the IrthNet system that allows for tickets not marked as timely to nonetheless not show up on the late ticket dashboard.
- An at-fault dig-in investigation finds a late ticket that could have contributed to a dig-in but was not indicated on late ticket reporting.
- Internal Audit finds some of the L&M SAR action-item corrective actions to be deficient.
- Staffing challenges arise that make completion of required work very difficult, and cross-functional collaboration is needed to solve the difficulty.²³⁸

PG&E is also monitoring the late ticket data that its new procedures produce, and is mindful that improvements in late ticket numbers can sometimes be evidence of lurking problems. Accordingly, PG&E will continue working to further, rather than celebrate, any Damage Prevention improvements. PG&E is cautiously optimistic that just as its Gas Safety, Damage Prevention, and L&M investments over the past several years made those programs increasingly safe, PG&E's more recent efforts will make its late ticket numbers increasingly reliable.

V. Responses to the OII Directives

PG&E believes that the evidence as laid out above, and as will be further developed during the course of this proceeding, will provide important context for any resolution of this matter. In addition, PG&E here responds to the nine directives for which the OII required a

²³⁸ Ex. 61.

specific response. To avoid unnecessary repetition, this Part also refers to particular discussions elsewhere in this Report for more comprehensive context and support for PG&E's views.

A. Directives 1 to 4: Incorrect Factual Statements and Conclusions

Directives 1 to 4 request that PG&E identify factual statements and conclusions in the SED Report, the Guidepost Report, and the Bates White Report that PG&E contends are incorrect. As a general matter, PG&E notes that it did not participate in the SED EUOs or the Guidepost interviews that informed the Guidepost Report, and believes that SED has additional relevant evidence not available to PG&E during the OII's moratorium on PG&E taking discovery. PG&E is not in a position to dispute that the witnesses and interviewees provided the responses that are reflected, and accepts the transcripts and reports as accurate reflections of that information.

Within those limitations, this Part provides specific responses to Directives 1 to 4, with appendices attached where appropriate to identify context relevant to particular statements.

Recognizing that certain statements and conclusions in the relevant documents are of particular import, this Part also identifies certain key points of disagreement that merit attention.

Directive 1: SED Report Facts and Conclusion. In addition to the key issues identified in Part V.A of this Report, Appendix C identifies facts and conclusions in the SED Report that PG&E contends are incorrect or for which additional context may be instructive.

Directives 2 and 3: Guidepost Report Facts, Findings, and Conclusions. In addition to the key issues identified in Part V.A of this Report, Appendix D identifies facts, findings, and conclusions in the Guidepost Report that PG&E contends are incorrect or for which additional context may be instructive.

Directive 4: Bates White Report Facts. As Bates White has described its analysis, "we have applied logic that we believe is conservative, and counts as late some tickets that may in

fact be timely.”²³⁹ This approach enabled PG&E, and SED, to assess the scope of the problem without underestimating it, an appropriate step. That is why PG&E informed SED that “PG&E supported the development of logic in this manner and believes its results are reliable”—recognizing, at the same time, the limitations of a methodology that attempted “to apply a single set of rules and criteria to millions of tickets and their various fields and notes.”²⁴⁰ PG&E believes that the Bates White methodology was appropriate and sound. For the reasons described in Parts III.C.4.a and IV.D.3 of this Report, however, the Bates White analysis is not itself evidence that any particular ticket was late.

The following sections identify certain facts and themes in the SED, Guidepost, and Bates White Reports that PG&E believes require particular attention.

1. Shorthand references to “falsification” and similar terms do not capture the significant variety of conduct at issue.

Both the SED Report and the Guidepost Report use general phrases like “falsification of safety records”²⁴¹ and “false notations.”²⁴² The problem with these generalized phrases is that they lump very different types of conduct into a single category. There were actually several distinct types of conduct that have been grouped together.

a. Workaround Responses

One category of conduct involves employees who improperly took advantage of a “glitch” in the IrthNet late ticket counting logic. As described in Parts II.B.4.f and III.C.4.a.i of this Report, a deficiency in the IrthNet system made certain late tickets appear as timely. For the

²³⁹ Ex. 31 at 4.

²⁴⁰ SED Report Attachment 66.

²⁴¹ See SED Report at 176.

²⁴² See SED Report Attachment 3 at SED-00014.

bulk of the period at issue, IrthNet counted as timely any ticket on which there was a positive response prior to the ticket's due time, even if the response did not reflect that the ticket had been completed. On its own, this glitch was sufficient to produce inaccurate late ticket reports. For instance, there are a variety of legitimate positive responses that could be recorded in IrthNet on a ticket without completing it by the due time, ranging from *Inclement Weather* notations to *Field Meet Requested*. Those responses would not be sufficient to fulfill the requirement that the ticket be completed, but they would have rendered the ticket timely in IrthNet's late ticket counting logic.

Some employees were aware of the glitch and improperly took advantage of it. By entering a positive response prior to the due time of a ticket that they anticipated would go late, they could make that ticket appear timely. The response that they entered might or might not also be true: A locator very well *could* request a field meet or take some other step and accurately record it in IrthNet, only to have IrthNet count the late ticket as timely.

PG&E agrees that any response intended to produce inaccurate information is problematic, and that there is evidence that this kind of conduct occurred. PG&E also notes that it is difficult to discern, today, which responses and notes were literally falsified, which were accurate but designed to take advantage of the glitch, and which were accurate, good-faith recordings of events that occurred prior to the due time—with absolutely no intention of making a late ticket appear timely.

b. Voicemail Responses

A second category of conduct involved locators who sought to reschedule a ticket due time by leaving a voicemail for the excavator. As discussed in Part IV.A.1 of this Report, using voicemail in this fashion violated PG&E policy. PG&E agrees that leaving a voicemail is

inadequate to change the ticket due time, and marking facilities after the original due time in this scenario should count as “late.”

The information the locator provided in IrthNet may also have been fully accurate. Indeed, every one of the tickets that SED highlights in its section on “Falsified USA Tickets” is based on locator notes that accurately record that the locator relied on voicemail.²⁴³

Figure 9. Tickets Discussed in SED Report Part VII.B

SED Report Page No.	Ticket No.	Relevant Responses / Notes
41	0299118	“Message left with excavator.”
46	0372494	“Left mess.”
51	0430147	“Method of Contact: Voicemail”
56	0364841	“Method of Contact: Voicemail”
59	411749	“Method of Contact: Voicemail”
64	W612000634	“Method of Contact: Voicemail”
68	W612001130	“Method of Contact: Voicemail”

This category of conduct raises two distinct concerns. First, most obviously, the locators should not have relied on voicemail to renegotiate ticket due times. Reaching out to excavators to inform them that the project will not be marked by a certain time is good practice, as it can confirm to the excavator that marking will still occur at some point after the due time. Indeed, leaving a voicemail is certainly better and safer than making no effort to contact the excavator. But leaving a voicemail is not sufficient to renegotiate the due time. While voicemail was expressly prohibited as a means of renegotiating the due time for timely marking, Guidepost noted that “some locators in years before 2017 believed that leaving a message such as a voicemail was sufficient to constitute positive contact, while others knew it was not. . . . The

²⁴³ See SED Report at 36-72.

confusion demonstrates at least that training programs had failed to make this point clear.”²⁴⁴
PG&E agrees.

The second concern regarding this category is that notwithstanding the locator’s accurate entries into IrthNet, the late ticket was counted as timely. The persistence of the “glitch” that categorized these tickets inaccurately is discussed elsewhere.²⁴⁵

c. Actively False Responses

PG&E agrees that workaround responses and voicemail responses were both inappropriate, albeit for different reasons, and that there is evidence that both occurred in significant volume. But there are ways in which the shorthand category that SED and Guidepost described, using the terms “falsified safety records” and “false notations,” suggest a third kind of conduct. Accordingly, PG&E believes a third kind of conduct, in which an employee may have actively and intentionally recorded information that the employee knew was false, also merits attention. Actively false responses might include, for example, a locator who recorded that he had “spoken with” an excavator, when he had merely left a voicemail, or a locator who recorded that he had “put paint on the ground” and marked the facilities, when the locator had not even visited the site. It *could* also encompass conduct in which “due dates [were] changed on the tickets without getting agreement from the excavator,”²⁴⁶ an example in the SED Report, but it would depend on what actually occurred: If the employee changed the due date based on being told that another employee (like a supervisor) had reached an appropriate mutual agreement with the excavator, and that mutual agreement actually occurred, there would be no actively false

²⁴⁴ SED Report Attachment 3 at SED-00017 n.8.

²⁴⁵ See Part V.C.1.

²⁴⁶ SED Report at 147.

response.²⁴⁷ If, in contrast, an employee recorded that his supervisor had spoken with the excavator, and he knew the supervisor had not, it would be an actively false response.

The SED Report and the Guidepost Report offer little indication of employees actively and intentionally recording events that the employee knew had not occurred. That noted, when evidence of this kind of falsification arises, whether in L&M or elsewhere in the Company, PG&E investigates the issues and takes appropriate actions. Indeed, when an employee recently made allegations of conduct that may be similar to this kind of active falsification, PG&E immediately initiated an investigation to determine the validity of these claims. Once that investigation is completed, PG&E will share the results with the Commission.

Again, PG&E agrees that each of these three kinds of responses is inappropriate. But the nature of the conduct, and the appropriate response, differs in each case. And those differences may be important in determining the appropriate resolution of this matter.

2. The IrthNet “glitch” was not fixed until 2017, and continued to contribute to the late ticket data problems even after it was believed to be fixed in 2012.

Relatedly, and fundamentally, it is important to note that the “glitch” discussed in the 2012 Internal Audit was *not* fixed later that year. Relying on Internal Audit’s conclusion in December 2012 that the software glitch had been resolved, both the Guidepost Report and the SED Report concluded that “the ‘glitch’ ha[d] in fact been addressed.”²⁴⁸

As discussed in Part IV.C.2 of this Report, the glitch was only partly addressed. And the “fix” that had been expected to resolve it still left a wide gap; IrthNet would now count as timely any ticket on which there was one positive response prior to the due time.²⁴⁹ This new, post-

²⁴⁷ SED Report Attachment 57 at SED-02093, lines 1-17 (Walker).

²⁴⁸ SED Report Attachment 3 at SED-00021 & n.15; SED Report at 23 (citing SED Report Attachment 3).

²⁴⁹ SED Report Attachment 24 at SED-00409-10.

2012 search logic turned out to be as prone to inaccuracy as the pre-2012 search logic had been. Locators, purposefully or inadvertently, could still cause a late ticket to appear as timely simply by taking certain steps in IrthNet, without actually completing the ticket. The result was that a variety of actions—both proper and improper—continued to cause late tickets to appear as timely in IrthNet’s late ticket reports. The glitch’s persistence was far from the *only* factor that contributed to late ticket undercounting, but it was a contributing factor.

3. While certain issues may have been “common knowledge,” it is important to evaluate what individual employees and managers actually knew.

The Guidepost Report, and the SED Report in relying on Guidepost, refer to “common knowledge among supervisors that locators entered false notes in the [IrthNet] database to avoid ‘going late’”²⁵⁰ and to problematic practices that were “common knowledge among L&M supervisors, and certain leaders also knew or should have known of these practices.”²⁵¹ PG&E does not contest that the efforts to make late tickets appear timely, and the ways of doing so, were well-known among certain employees. PG&E highlights this statement only as an instance in which it will be important for the proceeding not to paint with too broad a brush. That information was common knowledge among supervisors does not mean that it was known by all supervisors, that certain leaders should have known does not mean that all leaders should have known, or as discussed in Part IV.C.5 of this Report, that any individual was provided *some* information does not mean that the individual knew all of it—or that the individual did not act responsibly based on the information available.

²⁵⁰ SED Report Attachment 3 at SED-00040; SED Report at 21 (citing SED Report Attachment 3).

²⁵¹ SED Report Attachment 3 at SED-00014; SED Report at 16 (citing SED Report Attachment 3).

The record in this proceeding already demonstrates the importance of examining the available information carefully. In concluding that the practices were “common knowledge” among supervisors, the Guidepost Report cites five supervisors and five other employees who believed the practices were well-known.²⁵² That, of course, is troubling. At the same time, PG&E has identified over 300 managerial employees with L&M responsibilities over this period; it cannot be assumed that each of them was (or was not) aware of the same facts.²⁵³ Further, each of the individuals who told Guidepost that false notes were “common knowledge” also told Guidepost that “it did not happen often or at all in” their own group,²⁵⁴ and very few individuals have claimed to have witnessed the conduct first-hand.²⁵⁵

Again, this is not to claim that efforts to cause late tickets to appear as timely were a secret. The conduct, and knowledge of it, was inarguably more widespread than it should have been. But if it becomes necessary in this proceeding to assess the conduct of particular personnel, it will be important to review any broad claims about “common knowledge” on an individualized basis.

4. The Bates White Report does not establish that any particular ticket, or any precise number of tickets, was late.

The SED Report cites in a number of places the results of Bates White’s work to develop, to the greatest extent possible based on the data available in IrthNet, a more accurate late ticket count than the counts that had been produced under the IrthNet late ticket counting logic. SED

²⁵² SED Report Attachment 3 at SED-00040 n.43.

²⁵³ See Ex. 62.

²⁵⁴ SED Report Attachment 3 at SED-00040 n.43.

²⁵⁵ SED Report Attachment 57 at SED-02062, line 22 to SED-02063, line 6 (Walker); SED Report Attachment 58 at SED-02331, line 21 to SED-02332, line 5 (White).

expresses concern that the Bates White late ticket count, like any automated search logic, does not fully account for the “human element” of how individual employees may have entered notes regarding their daily interactions, and further concern that Bates White did not actually interview excavators for additional facts regarding the 4.8 million tickets that its methodology evaluated.²⁵⁶ SED also uses the Bates White late ticket counts as counterpoints to the original, IrthNet-generated counts that PG&E had provided to SED.²⁵⁷

It is important to understand what the Bates White work does and does not do. To be clear, PG&E agrees with SED that the automated search methodology for evaluating the IrthNet data could not fully account for the “human element” of how locators recorded, in notes fields, their interactions with locators.²⁵⁸ PG&E also agrees that Bates White’s late ticket work was limited to analyzing data in IrthNet. Bates White did not *audit* PG&E’s 4.8 million tickets; it developed a set of rules and criteria to apply to millions of tickets and their various fields and notes. As discussed in Part IV.D.3 of this Report, Bates White developed a set of rules to deal with these limitations. The rules were intended to overcount rather than undercount late tickets, and Bates White concluded that its logic was “conservative, and counts as late some tickets that may in fact be timely.”²⁵⁹

The Bates White approach was valuable not because it produced a definitive list of late tickets. It did not. It applied a system of rules and presumptions designed to indicate the potential scope of the problem, which was an appropriate and important step for PG&E to take. But the Bates White analysis is not itself evidence that any particular ticket is late. To establish

²⁵⁶ SED Report at 166.

²⁵⁷ SED Report at 4 & Tbl.1.

²⁵⁸ Ex. 31 at 4.

²⁵⁹ *Id.*

that particular tickets are late, the facts surrounding those tickets would have to be reviewed on an individual basis.

5. The safety risks associated with late ticket data should not be overstated.

The SED Report suggests that the undercounting of late tickets in PG&E's IrthNet data "presented significant risks to the public."²⁶⁰ PG&E does not dispute that the undercounting was significant and that it had potential safety consequences. But those safety consequences are not the same as the safety consequences that arise out of actual failures to mark in a timely manner. Moreover, as PG&E has explained, the L&M process is just one part of a Comprehensive Damage Prevention Program that consists of several layers of protections.²⁶¹ The program is designed so—and the data show—that the likelihood of a dig-in resulting from a late ticket is extremely small,²⁶² and timeliness is far from one of the key drivers of dig-ins. While PG&E agrees that there are important safety considerations here, it disagrees that the issues described in the SED Report resulted in an "inability" to properly mitigate risk.²⁶³

The SED Report posits that inaccurate late ticket data left PG&E unable to properly assess fault in a dig-in. SED's concern appears to be that when PG&E seeks to determine who is at fault in a dig-in, PG&E relies on whether the Company's response to the ticket was counted as timely in the IrthNet late ticket counting logic.²⁶⁴ But that is not how PG&E determines whether it was at fault in a dig-in. PG&E evaluates fault based on an on-site investigation that involves,

²⁶⁰ SED Report at 177.

²⁶¹ See Part II.B.1.

²⁶² See Part II.B.3.

²⁶³ See SED Report at 170-76.

²⁶⁴ SED Report at 172-73.

among other things, a meeting with the excavator, a site examination, comparisons of photographic evidence taken before and after the dig-in, and review of the ticket itself—not just checking whether the ticket appears on a late ticket list, but actually reviewing the responses and notes that the locator left to describe his or her work.²⁶⁵ Whether IrthNet counted the ticket as late does not factor into the analysis.²⁶⁶

6. PG&E provided incentives for employees to reduce dig-ins, not to falsify late ticket data.

The SED Report expresses concern that there were times when PG&E “supervisors would have had perverse incentives as part of their compensation to allow their locators [to] put false notes on tickets if the tickets could not be responded to on time.”²⁶⁷ SED’s concern appears

²⁶⁵ Ex. 63.

²⁶⁶ SED’s concern here appears to be based on a colloquy that the SED examiner had with Nick Stavropoulos during his EUO. In the colloquy, Mr. Stavropoulos agreed that *lateness*, and whether a ticket is categorized as late, factors into the fault determination. Mr. Stavropoulos was not asked whether the appearance of the ticket in the IrthNet late ticket report factors into the fault determination. Mr. Stavropoulos acknowledged that he was confused in the colloquy:

- Q. Would you expect that a late ticket is a factor that plays into the calculation of fault and whether, specifically, PG&E has any fault? And if so, how much[,]
related to a dig-in?
- A. Yes.
- Q. So, then, would the—if there was an undercounting in realtime of a late ticket,
could a result be that PG&E has miscalculated its fault associated with a dig-in?
- A. Yes.
- Q. Would you expect that to be the case in the situation we described, an
undercounting of late tickets?
- A. I don’t know?
- Q. Is that something PG&E is studying at the moment?
- A. I’m confused by the question.

SED Report Attachment 13 at SED-00313, line 14, to SED-00314, line 15 (Stavropoulos).
Stavropoulos does not claim that the fault determination is based on the IrthNet late ticket reports.

²⁶⁷ SED Report at 28.

to arise from a December 14, 2012 email in which a PG&E employee referred to late tickets “no longer be[ing] related to ... STIP metrics”; SED “infer[red]” from that email that late tickets had been a STIP metric for some period prior to 2012.²⁶⁸

The statement in that email was incorrect, as is the inference drawn from it. Late tickets were not part of the STIP metric. As discussed in Part IV.A.4.b of this Report, PG&E’s STIP scorecards for 2010, 2011, and 2012 clearly demonstrate that late tickets were *not* a metric.²⁶⁹ Moreover, several PG&E employees testified in their EUOs that late ticket metrics were not taken into account as part of the STIP incentives, which suggests that whatever confusion may have existed about this, many employees understood the facts.²⁷⁰

Indeed, the STIP incentives that PG&E established for its employees were focused on safety. During the period at issue here, safety was given, and continues to be given, the predominant weight in the STIP score. Between 2012 and 2014 safety was weighted as 40% of the STIP score.²⁷¹ Since 2015, safety has been the single largest factor in STIP performance goals, representing 50% of the total.²⁷² The STIP’s focus on dig-in reduction meant that PG&E was incentivizing activities that would reduce dig-ins and was creating a disincentive for activity that would increase dig-ins. To the extent some employees were motivated to reduce late tickets, which is certainly important, the motivation came not from the STIP, but as part of individual

²⁶⁸ SED Report at 27-28.

²⁶⁹ See Ex. 45 at AtchC1 to AtchC3.

²⁷⁰ See SED Report Attachment 57 at SED-02152, lines 9-21 (Walker); SED Report Attachment 35 at SED-00953, line 6 to SED-00954, line 9 (Soto); SED Report Attachment 33 at SED-00670, line 12 to SED-00671, line 24 (Dickson); SED Report Attachment 58 at SED-02302, lines 2-4 (White).

²⁷¹ See Ex. 45 at AtchA-1 to AtchA-5.

²⁷² *Id.*

goals established in their performance evaluations. These goals also typically included goals related to dig-in reduction.

PG&E's incentives and performance metrics relating to dig-ins, late tickets, and L&M generally are discussed in Part IV.A.4 of this Report.

B. Directives 5 and 6: Employee Performance and Pay Metrics

PG&E understands Directive 5, regarding performance and pay information relating to L&M late tickets, and Directive 6, regarding performance and pay information relating to failures to go to a site timely to locate and mark, to request coextensive information. A summary of employee performance and pay metrics regarding L&M late tickets and failures to timely go to a site to locate and mark is provided at Part IV.A.4 of this Report and the exhibits cited therein. The complete set of materials responsive to Directives 5 and 6 is voluminous and contains sensitive employee performance evaluation information. PG&E is prepared to make these materials available subject to appropriate protections for employee confidentiality and will work with SED and the parties to coordinate access to this information.

C. Directive 7: PG&E Explanations for L&M Problems

The problems identified in the SED Report, the Guidepost Report, and the Bates White Report can be categorized in a variety of ways, and PG&E is prepared to address particular issues as requested. Generally speaking, the problems can be addressed in four categories.

1. The IrthNet Glitch

Undoubtedly, the persistence of the IrthNet “glitch” contributed significantly to the undercounting of PG&E's late L&M tickets over the OII period. This is because the glitch could result in the counting of *properly* handled late tickets as timely, and more importantly, because the glitch enabled some employees to take inappropriate steps to *intentionally* cause late tickets to appear as timely. The glitch persisted because, in short, PG&E incorrectly concluded in 2012

that a “fix” designed by the Gas organization had succeeded. As discussed in Part IV.C.2 of this Report, it had not. PG&E has described the steps that it has taken to produce a more accurate picture of historic late ticket counts²⁷³ and to produce more accurate late ticket counts going forward.²⁷⁴

2. Staffing

PG&E agrees that staffing challenges contributed to the late ticket undercounting, as the pressure to keep up with ticket volume contributed to the decisions of some employees to take inappropriate actions. Those employees’ decisions to attempt to make their late tickets appear timely, because they could not keep up with the volume, only made it less likely that they would get additional resources to relieve their workload.

Staffing challenges persisted for a number of reasons. Most basically, determining resource levels for L&M work is inherently difficult.²⁷⁵ PG&E is taking steps today to improve its ability to forecast its L&M staffing needs,²⁷⁶ but calibrating staffing levels perfectly on an ongoing basis will always be a challenge—particularly when there are significant increases in volume.²⁷⁷

Here, PG&E leadership was also receiving an incomplete—or inaccurate—picture of L&M’s actual resource needs. Some of this was information provided to senior leaders by L&M management, who told leadership expressly that the team had what it needed.²⁷⁸ To be sure,

²⁷³ See Part IV.D.3.

²⁷⁴ See Part IV.E.3-4.

²⁷⁵ See Part III.A.

²⁷⁶ See Part IV.E.2.

²⁷⁷ See Part IV.B.1.

²⁷⁸ See Part III.A.

there were times when L&M management or others in L&M conveyed that they were stretched thin. At those times, PG&E worked to provide additional resources.²⁷⁹ But too often, senior leaders were told that staffing was adequate. And critically, because the late ticket data inaccurately suggested that L&M was meeting its workload, staffing shortages persisted when they could have been solved.

3. Drive to Zero

As L&M's workload increased, some L&M employees were given directives that they viewed as making zero late tickets the only acceptable outcome. While employees were right to focus on full compliance to avoid running afoul of California law's two-working-day timeliness requirement, the message of a "drive to zero" on late tickets was communicated, at times, in an overbearing way. The "drive to zero" message was sent, at least at times, in a manner that was inconsistent with messages that the Company sent through its policies, training, the performance goals and STIP safety metrics by which PG&E's employees' performance were evaluated, and direct communications from PG&E's Gas Operations leadership and others. The "drive to zero" message led certain employees to shift focus from proper L&M practices to using "zero late tickets" as the single, defining metric of safe performance, which it was not. Inappropriate actions designed to make late tickets appear timely were thus an unintended consequence of a well-intentioned directive. PG&E agrees that the message was sent in problematic ways, and has taken appropriate personnel actions in response. This issue is discussed in greater detail in Part IV.B.2 of this Report.

²⁷⁹ *See id.*

4. Failure to Resolve or Recognize Persistent Problems

Both the Guidepost Report and the SED Report describe particular emails, conversations, and facts that presented opportunities for the Company to solve the late ticket issues earlier in the period at issue here. While PG&E believes it has taken appropriate action since Jesus Soto was made aware in March 2017 that previous efforts to resolve the late ticket data issues had been unsuccessful, PG&E agrees that there were missed opportunities. The “glitch” could have been resolved after it was discussed in the 2010 Quality Assurance Audit and the 2012 Internal Audit; the confusing “voicemail” drop-down option in IrthNet that incorrectly conveyed that voicemail was an acceptable means of renegotiating a due time could have been removed as requested in 2012; individual complaints about worker fatigue and questions about data consistency could have been pieced together; and the senior leader tasked by Jesus Soto in 2016 with investigating reports of data inconsistencies could have and should have pursued the issue more thoroughly. None of those incidents persisted as a result of any intent to deceive. But they persisted, for the reasons discussed in Part IV.C.2-5 of this Report.

D. Directive 8: Corrective Actions

Over the period at issue here, PG&E has undertaken extensive efforts to make its Gas operations safer,²⁸⁰ its Damage Prevention program more effective,²⁸¹ and its responses to 811 tickets more timely.²⁸²

With respect to corrective actions that PG&E has undertaken regarding the late ticket data issues in particular, since the issues came to the attention of PG&E leadership in March 2017, the Company has taken aggressive and quick actions to address them. Part IV.E of this

²⁸⁰ See Part II.A.

²⁸¹ See Part II.B.

²⁸² See Part III.A.

Report discusses PG&E's Compliance Plan, which itself is attached as Appendix B. As discussed in Part IV.E of this Report, PG&E has completed 23 of the 30 corrective actions, which span five key areas: (1) cultural; (2) process and procedures; (3) tools and technology; (4) employees and contractors; and (5) internal and external controls.

E. Directive 9: Witness List

Appendix E provides information responsive to Directive 9. With respect to the identification of witnesses relevant to specified portions of this Report, PG&E has identified the main witnesses who have significant knowledge of the events and facts described in the specified portions of the 90-Day Report. PG&E submits this information without prejudice to its right to identify additional witnesses for an eventual hearing. The witnesses identified in Appendix E reflect PG&E's current best judgment regarding the main fact witnesses regarding the general topics of this Report, but PG&E does not understand the OII directive to require an exhaustive list of all individuals with relevant knowledge of every aspect or assertion in the Report.

VI. Legal Standards and Requirements

Parts I to V of this Report provide an overview of the events described in the SED Report. In this Part, PG&E addresses the legal context in which those facts should be evaluated. This Part focuses on the OII's and the SED Report's list of state and federal statutes and regulations that may be implicated here.

Once again, it is important to examine the individual provisions carefully, and not to paint with too broad a brush. As discussed below, several provisions are facially inapplicable to the facts at issue. Other statutes, California Government Code §§ 4216.2(b), 4216.3(a)(1), which require that tickets be marked within two working days, provide for action by others, not by the Commission, for violations like the ones at issue in the OII. PG&E believes that the only requirements cited in the OII and SED Report that could be at issue here, if the facts ultimately

support them, are California Public Utilities Code § 451, Commission Rule of Practice and Procedure 1.1 (Rule 1.1), and the provisions that require PG&E to follow its own procedures.

With respect to each violation that SED seeks to establish, SED will bear the burden of proof.²⁸³ Whether it seeks to establish violations on a large number of individual tickets, or a smaller number of violations regarding categories of conduct, the burden will be on SED to prove each of the elements for each violation it seeks to establish.

A. Provisions Not Implicated in the OII

The OII and the SED Report list a number of provisions as potentially at issue in this proceeding. Based on PG&E's review of the underlying conduct described in this OII, many of the listed provisions do not appear to be implicated.

49 C.F.R. §§ 192.601–192.631 (Subpart L of Part 192).²⁸⁴ The OII cites Part 192's entire "Operations" portion—Subpart L—which prescribes a broad range of minimum requirements for operating natural-gas pipeline facilities, but does not specify which of the 20 sections may be at issue. While a few of the sections, discussed below in Part VI.C, could potentially apply, depending on the facts that SED establishes, most are plainly irrelevant to the issues identified in the OII and the SED Report. For example, Sections 192.609 and 192.611 deal with changes in class location, which has nothing to do with this proceeding. Section 192.612 deals with pipelines in the Gulf of Mexico and its inlets. Section 192.615 deals with

²⁸³ See *Order Instituting Investigation on the Commission's Own Motion into the Operations, Practices, and Conduct of San Francisco Municipal Transportation Agency, Regarding Ongoing Public Safety Issues*, Modified Presiding Officer's Decision, D. 15-08-031, 2015 WL 5159104, at *3 n. 1 (C.P.U.C. Aug. 27, 2015) (citing *Communications TeleSystems Int'l*, D. 97-05-089, 72 C.P.U.C.2d 621, 633–64 (1997)); *Order Instituting Investigation on the Commission's Own Motion into the fatal accident at the San Francisco Municipal Transportation Agency's Mission Rock Station in the City and County of San Francisco, on December 1, 2012*, Decision, D.15-08-032, 2015 WL 5159105, at *20 (C.P.U.C. Aug. 27, 2015).

²⁸⁴ See OII at 4.

plans for natural disasters and other emergencies. Sections 192.619, 192.620, and 192.621 deal with the maximum (or minimum) allowable operating pressure for steel or plastic pipelines or high- (or low-) pressure distribution systems. Section 192.625 deals with odorization of gas. And Sections 192.627, 192.629, and 192.631 deal with tapping pipelines under pressure, purging pipelines, and managing control rooms, respectively. None of these provisions is relevant here.

A final provision of this Subpart L bears highlighting: Section 192.616 requires each pipeline operator to develop and implement a written “continuing public education” program that specifically includes “provisions to educate ... persons engaged in excavation-related activities on ... [u]se of a one-call notification system prior to excavation and other damage prevention activities.”²⁸⁵ To be sure, encouraging the use of 811 is relevant to the Damage Prevention issues in this proceeding. But because there is no allegation in the OII or the SED Report that PG&E has been or is deficient in its promotion of 811, Section 192.616 should not be at issue in this proceeding.²⁸⁶ So with a few potential exceptions noted below in Part VI.C, the provisions of Subpart L of Part 192 do not apply here.

49 C.F.R. § 192.1007(c).²⁸⁷ This regulatory provision requires that an operator’s written integrity management plan contain procedures for developing and implementing elements to evaluate and rank the risks associated with its distribution pipeline. Specifically, “the operator must determine the relative importance of each threat and estimate and rank the risks posed to its pipeline. This evaluation must consider each applicable current and potential threat, the likelihood of failure associated with each threat, and the potential consequences of such a

²⁸⁵ 49 C.F.R. § 192.616(d)(1).

²⁸⁶ See Part II.B.4.

²⁸⁷ See OII at 4.

failure.” There is no suggestion in the OII or the SED Report that PG&E did not in fact have a written integrity management plan that contained all the requisite procedures. Accordingly, Section 192.1007(c) should not be at issue in this proceeding.

Other Federal, State, and Commission Requirements.²⁸⁸ In the OII, the Commission states that it “will ascertain ... whether PG&E violated ... [o]ther Federal, State, and Commission requirements.”²⁸⁹ This reference is very generalized, so it is unclear what the specific basis for any potential liability or penalties might be.

B. California Government Code Sections 4216.2(b) and 4216.3(a)(1)

The OII repeatedly cites Section 4216 of the Government Code, which is the first section of a Government Code article—Article 2—that comprises two dozen sections regulating L&M practices and regional notification centers.²⁹⁰ While PG&E takes Section 4216, and all of Article 2, very seriously and has worked hard to improve the Company’s ability to respond to 811 tickets in a timely manner, PG&E does not believe that Section 4216 or any other section of Article 2 should be at issue in this proceeding. Article 2, specifically Sections 4216.2(b), 4216.3(a)(1), and 4216.6, is not a potential source of liability for violations that may have occurred prior to January 1, 2017, because the Commission lacked jurisdiction to enforce Article 2’s provisions before that date. And Article 2 is not a potential source of liability for violations that may have occurred on or after January 1, 2017, because while the Legislature granted the Commission authority to enforce the statute under certain specified conditions beginning January 1, 2017, those conditions have not been satisfied here, as explained below.

²⁸⁸ *See id.*

²⁸⁹ *See id.*

²⁹⁰ *See* OII at 3 n.2, 4, 6, 7, 10, 13, 18; *see also id.* at 3 (citing Cal. Gov’t Code § 4216.3, a section in Article 2); SED Report at 168–70, 174 (alleging violations of § 4216.3(a)(1)).

The Commission has jurisdiction to enforce California state statutes “affecting public utilities,” to prosecute violations of those statutes, and to recover penalties for those violations only if “the enforcement of [those statutes] is not specifically vested in some other officer or tribunal.”²⁹¹ The question here is whether enforcement of Article 2 is vested in some other officer or tribunal. If it is, then the Legislature has determined that enforcement of that provision should be left in the hands of that other officer.

With respect to the period prior to 2017, the enforcement of Article 2 was specifically vested in entities other than the Commission. Section 4216.6, which subjects to a civil penalty an operator or excavator who negligently, or knowingly and willfully, violates any provision of Article 2, provides as follows:

An action may be brought by *the Attorney General, the district attorney, or the local or state agency that issued the permit to excavate*, for the enforcement of the civil penalty pursuant to this section in a civil action brought in the name of the people of the State of California.²⁹²

Here, no “permit[s] to excavate” are at issue; sole jurisdiction to enforce civil penalties under Article 2’s provisions is specifically vested in the Attorney General or the district attorney. Because the authority is specifically vested in those other officers, absent express statutory language to the contrary the Commission has no authority to prosecute violations of Sections 4216.2(b) and 4216.3(a)(1), the provisions requiring that tickets be marked within two working days.

The Legislature recently amended Section 4216.6 to give the Commission new, limited enforcement authority for violations that occurred after the amendment’s effective date, January

²⁹¹ Cal. Pub. Utilities Code § 2101.

²⁹² Cal. Gov’t Code § 4216.6(b) (emphasis added); *id.* § 4216.6(b) (2015) (same).

1, 2017. Specifically, the Legislature amended that Section to provide for enforcement against certain types of corporations by the Commission—but only “following a recommendation of the California Underground Facilities Safe Excavation Board.”²⁹³

This amendment is significant for two reasons. *First*, it confirms that prior to 2017, the Legislature had not intended for enforcement of Article 2 to be vested in the Commission. It intended for enforcement authority to be vested in the Attorney General and the district attorneys. If the Commission already had jurisdiction to enforce Article 2 under the earlier version of Section 4216.6, no amendment would have been necessary.

Second, with respect to the period beginning January 1, 2017, the Legislature’s recent amendment provides that the Commission can enforce alleged violations of Article 2 *only after* the newly created California Underground Facilities Safe Excavation Board (the Safe Excavation Board) completes an investigation, finds a probable violation of Article 2, and transmits to the Commission a formal recommendation to enforce the Article 2 provision, and then the Commission accepts (or amends) that formal recommendation.²⁹⁴ Notably, the statute does not bind the Commission to accept the Safe Excavation Board’s recommendation.²⁹⁵ But it does require that the Commission at least have the benefit of the Safe Excavation Board’s views. And here, the Safe Excavation Board simply has made no recommendation to enforce Article 2 against PG&E. Under these circumstances, the Commission does not have the information that the Legislature determined the Commission must have, prior to an Article 2 enforcement action. So for potential violations that may have occurred in 2017, through the end of the OII period, the

²⁹³ *Id.* § 4216.6(c)(2).

²⁹⁴ *See i.d.* §§ 4216.6(c), 4216.19(d).

²⁹⁵ *See id.* § 4216.6(c) (noting that agencies newly authorized to enforce Article 2 may “accept, amend, or reject the recommendations of the board”).

Commission has the theoretical authority to enforce Article 2, but not under the present conditions.

C. Other Legal Provisions

PG&E believes that only a few sets of provisions could play a role in this proceeding—again, depending on the facts that are ultimately established.

*California Public Utilities Code § 451.*²⁹⁶ Section 451 of the Public Utilities Code prohibits unjust or unreasonable charges and public services. Neither the OII nor the SED Report suggests that PG&E demanded or received unjust or unreasonable charges. Nonetheless, PG&E anticipates that SED may argue that PG&E failed to “furnish and maintain such adequate, efficient, just, and reasonable service[s] ... as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public.”²⁹⁷

*49 C.F.R. § 192.13(c), 192.605(a), 192.603(b), 192.614(a).*²⁹⁸ Section 192.13(c) of the federal pipeline-safety regulations provides that “[e]ach operator shall maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part [*i.e.*, 49 C.F.R. Part 192].” Much of Part 192 is not applicable, as described above in Part VI.A of this Report. Without waiving any right to make appropriate arguments regarding the application of these provisions to the facts established during this proceeding, PG&E acknowledges that there is at least a facial possibility that the following provisions may be implicated:

- Section 192.605(a)’s requirement that operators like PG&E “prepare and follow for each pipeline, a manual of written procedures for conducting operations and

²⁹⁶ See OII at 4, 10, 12, 18.

²⁹⁷ Cal. Pub. Util. Code § 451, third sentence.

²⁹⁸ See OII at 4.

maintenance [O&M] activities and for emergency response.”²⁹⁹ PG&E acknowledges that this proceeding may implicate instances in which employees did not “follow” certain PG&E written procedures.

- Section 192.603(b)’s requirement that “[e]ach operator ... keep records necessary to administer the procedures established under § 192.605.”³⁰⁰ PG&E anticipates that SED may argue that records necessary to administer and follow the procedures established in the relevant manuals were not adequately maintained within the meaning of Section 192.603(b).
- Section 192.614(a)’s requirement that an operator of a buried pipeline must “carry out ... a written program to prevent damage to that pipeline from excavation activities” that provides, at a minimum, “for temporary marking of buried pipelines in the area of excavation activity before, as far as practical, the activity begins.”³⁰¹ PG&E anticipates that SED may question whether PG&E “carr[ied] out” a program that provided for locating and marking its facilities “before, as far as practical, the [excavation] activity beg[an].”

Commission General Order 112-F.³⁰² To the extent that Commission General Order 112-F³⁰³ incorporates the federal regulations in 49 C.F.R. Part 192 cited here³⁰⁴ and requires operators to maintain for inspection “the necessary records to establish that they have complied” with the applicable federal regulations,³⁰⁵ PG&E anticipates that General Order 112-F may be implicated as well.

Rule 1.1.³⁰⁶ The Commission’s general ethics provision, provides, among other things, that persons transacting business with the Commission agree “never to mislead the Commission or its staff by an artifice or false statement of fact or law.” The OII cites solely Rule 1.1 when

²⁹⁹ 49 C.F.R. § 192.605(a).

³⁰⁰ *Id.* § 192.603(b).

³⁰¹ *Id.* § 192.614(a) & (c)(5).

³⁰² *See* OII at 4, 12 n.31.

³⁰³ *See* OII at 4, 12 n.31.

³⁰⁴ *See* General Order 112-F § 101.2.

³⁰⁵ *See id.* § 101.4.

³⁰⁶ Rule 1.1; *see* OII at 13.

discussing PG&E's "underreporting its late ticket count to the Commission's Safety and Enforcement Division."³⁰⁷ PG&E recognizes that some information it provided to SED in response to data requests was initially inaccurate, as a result of the late ticket data issues being addressed in this OII. Indeed, PG&E informed SED that the data were inaccurate when the issues became apparent and took steps to correct the information.

Given PG&E's understanding that the Commission has interpreted Rule 1.1 not to require any particular mental state prior to a finding that a statement constitutes a Rule 1.1 violation, PG&E anticipates that SED will argue that the submission of incorrect late ticket counts implicates Rule 1.1.

At the same time, PG&E believes that the evidence will show that its responses to SED's requests for late ticket information, after SED was informed by PHMSA of potential problems with PG&E's late ticket data, did not fall within the plain terms of Rule 1.1 because they were not "calculated to be misunderstood," "clever plan[s] or idea[s], esp[ecially] one[s] intended to deceive," or "untrue statement[s] knowingly made with the intent to mislead."³⁰⁸ To the contrary, PG&E's intention was to provide, from its comprehensive source of 811 ticket data, the best information it had (indeed, the same information on which the Company relied for internal management purposes). As it became clear that the data were not accurate, PG&E notified SED, hired Bates White, and updated the information being provided. PG&E recognizes the importance of accurate records, and as discussed throughout this Report, has taken and is taking appropriate corrective actions. The evidence will not demonstrate, however, that PG&E provided numbers to SED with any intent to deceive SED. Further, the inaccurate numbers did

³⁰⁷ OII at 13.

³⁰⁸ See *Black's Law Dictionary* 1151 (defining "misleading"), 135 ("artifice"), 1629 ("false statement") (10th ed. 2014).

not deceive SED, as PG&E corrected the numbers during SED’s investigation and well before SED issued its Report.

VII. Equitable Remedies and Civil Penalties

PG&E anticipates that if the Commission finds violations of the legal provisions identified in Part VI.C (or other provisions) of this Report, it will consider a combination of equitable remedies to prevent future harm and civil penalties to address past harm and serve as a deterrent. PG&E agrees with the OII’s references to the general provisions of the California Public Utilities Code defining the outer limits of the Commission’s remedial authority.³⁰⁹

A. Equitable Remedies

With respect to potential equitable remedies, four provisions of the California Public Utilities Code are most relevant. Section 451 prohibits public utilities from rendering unjust or unreasonable services to the public.³¹⁰ Section 701 authorizes the Commission to take “necessary and convenient” steps in exercising its jurisdiction to supervise and regulate public utilities.³¹¹ Section 761 provides that, in certain circumstances, the Commission may fix a public utility’s rules and practices, and prescribe rules for the utility’s performance of services.³¹² And Section 768 further provides that, in certain circumstances, the Commission may require public utilities to construct, maintain, and operate their systems safely, to use appropriate safety devices, and to establish safe construction standards.³¹³ Together, these four statutory provisions define the Commission’s general authority to fashion certain equitable remedies.

³⁰⁹ See OII at 10, 12, 13, 18.

³¹⁰ Cal. Pub. Util. Code § 451.

³¹¹ *Id.* § 701.

³¹² *Id.* § 761.

³¹³ *Id.* § 768.

The Commission often seeks to craft a package that balances equitable remedies to prevent future harm with civil penalties for past harm and deterrence. So the amount of civil penalties, if any, ordered in this proceeding should depend, in part, on the nature and scope of nonmonetary relief the Commission orders pursuant to the above-described statutes. PG&E welcomes any avenue in this proceeding to identify better practices that will assist PG&E in becoming best-in-class from a safety and compliance perspective.

B. Monetary Penalties

With respect to potential monetary penalties, the provisions of the California Public Utilities Code that generally govern the Commission's award of civil penalties provide a wide range of possible awards. During the OII period at issue, Section 2107 of the California Public Utilities Code provided for a range of \$500 to \$50,000 in penalties per violation.³¹⁴ That section is not specific to the L&M context, however. It provides a general range of possible monetary penalties for the broad swath of legal violations that the Commission confronts in all sorts of cases.

While that range is wide and untethered to any particular set of violations, the law provides helpful and relatively specific guidance for violations of late-ticket issues in the L&M context. California and federal law both provide highly relevant insights into the levels of penalties (within that \$500-to-\$50,000 range) that may be appropriate for violations of law like those the OII alleges in the Damage Prevention and L&M processes. In particular, while, as discussed above in Part VI.B of this Report, the Commission lacks jurisdiction to enforce

³¹⁴ Cal. Pub. Util. Code § 2107 (West 2012) (effective from January 1, 2012, through December 31, 2018). The cap has since been raised to \$100,000 per violation. *See* Cal. Pub. Util. Code § 2107 (eff. Jan. 1, 2019).

PG&E's alleged violations of California Government Code Section 4216.2(b)'s or 4216.3(a)(1)'s two-working-day requirement, the remediation provisions associated with those sections provide guidance for the circumstances in which monetary penalties are appropriate for late tickets, and the corresponding amounts. And the federal Natural Gas Pipeline Safety Act³¹⁵ provides specific guidance on proper civil penalties for violations of law in the L&M context and for *related series* of violations in the L&M context.

Further development of the facts will assist the Commission and the Parties in determining whether penalties are appropriate and, if so, the proper amounts. At this stage, however, establishing some potentially relevant considerations may be of assistance.

1. Scier in Determining Civil Penalties for L&M Violations

While Section 2107 sets a wide range for monetary penalties generally, with little guidance for application of the range in particular circumstances, the California Legislature has provided much more specific guidance when establishing the range of possible penalties specifically for violations of Article 2, the California Government Code provisions protecting underground infrastructure. As explained above in Part VI.B of this Report, Article 2 encompasses Sections 4216.2(b) and 4216.3(a)(1) and their two-working-day requirement. To the extent that any violations that warrant penalties under Section 2107 are analogous to violations of Article 2, Article 2 provides a useful touchstone of the Legislature's view of the appropriate remedial framework.

Article 2 instructs courts to consider the scier of an entity that violates any provision of the Article. Specifically, Article 2's civil-penalty provision, Section 4216.6, imposes

³¹⁵ 49 U.S.C. § 60101 *et seq.*

monetary liability only on an operator “who *negligently* violates” the article (subject to a civil penalty not to exceed \$10,000)³¹⁶ or “who *knowingly and willfully* violates” the article (subject to a civil penalty not to exceed \$50,000).³¹⁷

California law thus establishes a three-tiered approach to locate and mark violations:

- If a violation was knowing and willful, the operator is subject to a civil penalty ranging from \$500 to \$50,000 during the relevant period, as well as equitable remedies.
- If a violation was negligent, but not knowing and willful, the operator is subject to a civil penalty ranging from \$500 to \$10,000, as well as equitable remedies.
- If a violation was not negligent, the operator is subject to equitable remedies, but not civil penalties.

This penalty framework is not one of strict liability. Rather, it contemplates that, to impose monetary penalties with respect to any particular late ticket or other L&M violation, there must be evidence of negligence with respect to that specific violation.

Other regulatory frameworks that govern the L&M process similarly recognize that the mere fact that a ticket was late should not be viewed as a sufficient basis for imposing penalties. PHMSA, the federal agency with nationwide responsibility for pipeline safety, has likewise acknowledged that absolute perfection in handling a massive number of tickets, while an admirable goal, is not the proper measure of a successful Damage Prevention and L&M program. Indeed, PHMSA regulations require that a public utility’s written program for Damage Prevention provide only for “temporary marking of buried pipelines in the area of excavation activity before, *as far as practical*, the activity begins.”³¹⁸ PHMSA does not expect a pipeline operator each year to mark every last one of hundreds of thousands of tickets (or more) before

³¹⁶ Cal. Gov’t Code § 4216.6(a)(1) (emphasis added).

³¹⁷ *Id.* § 4216.6(a)(2) (emphasis added).

³¹⁸ 49 C.F.R. § 192.614(c)(5) (emphasis added).

excavation activity commences. Indeed, given that PHMSA does not even require that Damage Prevention *plans* provide for perfection, it would be odd to treat the mere fact that a particular ticket was late as a basis for liability, and even more odd to treat it as a sufficient basis for imposing a monetary penalty—particularly when the most directly instructive penalty framework in California requires proof of negligence before authorizing any monetary penalty at all.

Ultimately, there will be much discussion in this proceeding of the degree to which a manager who emphasized a “zero tolerance” goal in an arguably overbearing way may have created improper incentives for employees to manipulate late ticket data. In the course of this proceeding, the Commission may wish to consider whether departing from PHMSA’s “as far as practical” standard, and adopting a “zero tolerance” approach to late tickets, and then imposing a monetary penalty for each late ticket regardless of the circumstances or *mens rea* associated with that event, will incentivize safe conduct or, as the SED Report describes, create undue pressures that trigger unfortunate unintended consequences.

From these points flow three conclusions regarding the number of civil penalties that can be awarded, the necessary proof required for each civil penalty, and the proper size of any civil penalty. *First*, the Commission should closely analyze whether SED’s allegations regarding a particular violation are actually separate and distinct offenses or simply one overarching or ongoing offense. For example, if PG&E inaccurately told SED about 20 late tickets when in fact there were 25, that obviously could be (at most) one offense, not five. Likewise, if PG&E failed to follow one specific internal procedure or policy, that failure ordinarily should be deemed a single offense, even if it affected multiple tickets. *Second*, to the extent the Commission concludes that each of several tickets *does* give rise to a separate and distinct offense, civil penalties should be imposed for those tickets only if SED carries its burden of proving that

PG&E acted at least negligently as to each specific ticket. For example, SED would have to prove not only that a particular ticket was actually late, but also that it was late because of, say, negligence related to an overbearing supervisor, as opposed to the locator just not being able to get to the location on time despite best efforts. If SED cannot adduce such evidence of negligence, or if it instead attempts to rely on generic, rather than ticket-by-ticket, evidence of negligence, it can properly pursue only a single offense with a single civil penalty. And *third*, PG&E believes the evidence will show that any penalty here should be set at the lower end of the Commission's permissible range.

2. Maximum Penalties, Daily Fines, and Related Violations

As noted above, the most directly applicable guidance from the California Legislature for violations in the L&M context provides for a maximum civil penalty of \$10,000 for a negligent violation and \$50,000 for a knowing and willful violation. The OII raises the possibility of “review[ing] the duration of violations per Public Utilities Code Section 2108” and ordering “daily fines” under that section.³¹⁹ Indeed, as a general matter, Section 2108 provides for the possibility that “in case of a continuing violation[,] each day's continuance thereof shall be a separate and distinct offense.”³²⁰ But again, that is the generic civil-penalties provision that the Legislature enacted (in 1951) to cover a broad swath of Commission cases.

Perhaps recognizing the impracticality of applying that or any similarly open-ended standard to L&M practices that involve hundreds of thousands of tickets per year (or more), Congress has spoken to the specific issue of how to treat “daily fines” in the Damage Prevention and L&M context. Specifically, in the precise context of administrative enforcement

³¹⁹ OII at 10.

³²⁰ Cal. Pub. Util. Code § 2108.

proceedings for L&M violations, Congress has effectively capped the maximum civil penalty for a continuing violation at ten times the maximum civil penalty for a single (one-day) violation. So even if a continuing violation lasts for weeks or months or years, Congress has determined that a maximum civil penalty for that related series of daily violations of ten times the maximum civil penalty for a single violation imposes an appropriately serious fine without producing excessively punitive awards.

Congress established this cap as part of the Natural Gas Pipeline Safety Act, which was enacted in 1994 and amended as recently as 2012. This is the portion of the U.S. Code authorizing the key regulatory provisions that the OII cites as bases for liability here.³²¹ Congress contemplated that there would be a substantial level of consistency between the administrative enforcement of penalty provisions of these federal regulations and the Natural Gas Pipeline Safety Act, on the one hand, and the administrative enforcement of corresponding state penalty frameworks, on the other: Specifically, Congress directed that, to the extent state regulatory bodies like the Commission desire authority to implement and enforce the Part 192 regulations at issue here, the state agency must certify that it will enforce its safety standards under state law “by injunctive relief and civil penalties *substantially the same* as provided under [49 U.S.C. §] 60122(a)(1).”³²²

The penalty provisions referred to in 49 U.S.C. § 60122(a)(1) provide L&M-specific guidance for appropriate maximum penalties for ongoing violations and situations involving “related series of violations.” The first two sentences of § 60122(a)(1) closely resemble California Public Utilities Code Section 2108: An operator who violates the federal locate-and-

³²¹ See 439 U.S.C. §§ 60105, 60114; 49 C.F.R. Part 192.

³²² 49 U.S.C. § 60105(b)(7) (emphasis added).

mark law³²³ is liable “for a civil penalty of not more than \$200,000 for each violation,” and “[a] separate violation occurs for each day the violation continues.”³²⁴ But in the next sentence, the federal statute—which, unlike California’s Section 2108, was *specifically* tailored to the locate-and-mark context—provides that “[t]he maximum civil penalty under this paragraph *for a related series of violations* is \$2,000,000.”³²⁵ Thus, in Congress’s judgment, the appropriate maximum civil penalty for a related series of L&M violations, regardless of duration, is one that effectively caps the penalty at \$2,000,000, or ten times the \$200,000 cap for a single violation.³²⁶

This approach reflects the reality of any robust L&M program: With hundreds of thousands or even millions of L&M tickets a year, and ongoing L&M processes continuing every day for years, a model that compounded daily penalties without limit could cripple an entire industry. Congress concluded that a maximum penalty effectively capped at ten days imposes an appropriate penalty without raising the specter of devastatingly punitive consequences.

Finally, it is important to recognize that many violations are not continuing violations at all. To the extent that liability might rest on PG&E’s general failure to follow one of its own plans, procedures, programs, or recordkeeping requirements, that failure would constitute only a

³²³ *Id.* § 60114(b).

³²⁴ *Id.* § 60122(a)(1).

³²⁵ *Id.* (emphasis added); *see also* 49 C.F.R. § 190.223(a) (adjusting the figures for inflation, but retaining the 1-to-10 ratio).

³²⁶ Adopting the same approach here would fully comport with Section 2108’s command that “in case of a continuing violation[,] each day’s continuance thereof shall be a separate and distinct offense.” A “continuing violation” of *X* days would still give rise to *X* separate and distinct offenses, no matter how long the violation continued. But if the violation lasted more than 10 days, the maximum penalty per day would be adjusted accordingly. For example, because California law caps a penalty for a negligent L&M violation at \$10,000, a penalty for a 10-day continuing negligent L&M violation would be capped at \$100,000 (10 days times \$10,000 per day, with each of the 10 days counting as a separate and distinct offense). However, a penalty for a 20-day continuing negligent L&M violation would also be capped at \$100,000 (20 days times \$5,000 per day, with each of the 20 days counting as a separate and distinct offense). The longer the violation continued, the lower the effective cap on the penalty for each daily offense.

single violation, a single offense with a single civil penalty, regardless of its duration. And absent evidence of some type of “continuing duty” and proof of each element of the offense for each day of the violation, violations are presumptively to be treated as individual, not continuing.

VIII. Conclusion

Reliable data and timely responses to 811 calls are important elements of PG&E’s Damage Prevention program, and PG&E believes that the SED Report describes conduct that was unacceptable and should not be condoned. PG&E also believes that this proceeding should view the actions at issue in their full context: the work PG&E has undertaken to prevent dig-ins and make its Gas, Damage Prevention, and L&M programs as safe as possible; the actual nature, scope, and consequences of the problems identified; and the steps that PG&E has taken since March 2017. PG&E looks forward to assisting the Commission in its consideration of these important issues.

Respectfully submitted,

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APPENDIX

A

Abbreviated Chronology for 90-Day Report

For the convenience of the reader, this abbreviated chronology summarizes certain key events described in greater detail in the Report, with cross-references to the corresponding Parts of the Report. The Report also provides detail regarding additional events and documents that PG&E hopes the Commission will find helpful in understanding the full context of the events at issue.

2012

- PG&E's Internal Audit group published the results of its assessment of controls over the effectiveness of PG&E's gas damage prevention program. This 2012 Internal Audit identified, among other things, a "glitch" in PG&E's IrthNet late ticket counting logic.¹
- Jesus Soto, who arrived at PG&E earlier in the year, initiated a Special Attention Review ("SAR") focused on the Company's Damage Prevention program.²
- PG&E expanded its public awareness campaign of the 811 calls.³
- In December 2012, Internal Audit concluded that corrective actions sufficient to resolve the IrthNet glitch had been implemented. Internal Audit closed out the open audit issue.⁴
- PG&E requested that its IrthNet software remove the voicemail option that appeared in IrthNet as a method of contact for renegotiating a ticket, and provided training to reflect that voicemail was no longer a valid method of negotiating a start time.⁵
- PG&E's 2012 IrthNet data showed that of 613,786 tickets, 4,623 were counted as late. PG&E's dig-in rate was 2.53 dig-ins per thousand tickets.

2013

- The 2012 Damage Prevention SAR continued into 2013 and resulted in a multifaceted strategy to prevent dig-ins.⁶

¹ Part II.B.4.f.

² Part II.B.4.a.

³ Part II.B.4.b.

⁴ Part II.B.4.f.

⁵ Part II.B.4.g.

⁶ Part II.B.4.a.

- PG&E published its 2013 L&M Handbook, developed by locators, in order to further integrate proper procedures and compliance into the L&M culture.⁷
- PG&E began reorganizing the Company's L&M function, pulling it out of the dispersed, geographic-based divisions, and placing it all under a single director.⁸
- PG&E's 2013 IrthNet data showed that of 657,268 tickets, 13,547 were counted as late. PG&E's dig-in rate was 2.75 dig-ins per thousand tickets.

2014

- PG&E's reorganization of L&M function under a single director was fully implemented in January 2014.⁹
- The 2012 Damage Prevention SAR continued into 2014, continuing the Company's high-level attention on Damage Prevention.¹⁰
- 2014 was the last year in which safety metrics comprised 40% of PG&E's Short-Term Incentive Plan, or STIP. Beginning in 2015, safety metrics would become the single largest factor in STIP goals, representing 50% of the total.¹¹
- For 2014, PG&E's IrthNet data showed that of 701,751 tickets, 13,391 were counted as late. PG&E's dig-in rate for 2014 was 2.42 dig-ins per thousand tickets.

2015

- PG&E published a new L&M Handbook, again developed by locators, in order to further integrate proper procedures and compliance into the L&M culture.¹²
- In April, Soto initiated a new SAR focused on L&M resources, producing both long- and short-term strategies for dealing with employee turnover, or "churn."¹³
- PG&E's 2015 IrthNet data showed that of 819,040 tickets, 3,385 were counted as late. PG&E's dig-in rate for 2015 was 2.11 dig-ins per thousand tickets.

⁷ Part II.B.4.e.

⁸ Part II.B.4.d.

⁹ Part II.B.4.d.

¹⁰ Part II.B.4.a.

¹¹ Part IV.A.4.b.

¹² Part II.B.4.e.

¹³ Part III.B.

2016

- SED began its preliminary investigation of late ticket undercounting issues after receiving information from PHMSA in April 2016.¹⁴ This information was not shared with PG&E.
- PG&E's Quality Management group presented evidence of a discrepancy in PG&E's late ticket data to Soto. Soto instructed John Higgins, Vice President, Gas Transmission & Distribution Operations, to look into the issue.¹⁵
- In December, SED met with PG&E and had a "discussion of how to find late tickets in PG&E's system and what the ticket renegotiation process is."¹⁶
- PG&E's 2016 IrthNet data showed that of 898,035 tickets, 44 were counted as late. PG&E's dig-in rate for 2016 was 2.02 dig-ins per thousand tickets.

2017

- In February and March, SED met with PG&E L&M personnel and "discovered some USA tickets were shown as rescheduled by leaving voicemails or messages with the excavators."¹⁷
- In March, PG&E hosted an American Gas Association Peer Review. At the peer review, reviewers informed Soto that according to employees they had talked to, the Company's actual performance on late tickets was being shielded, and employees knew it.¹⁸
- In April, at his first leadership team meeting after the Peer Review, Soto announced the creation of a new SAR (the "2017 SAR") to look into the issue identified at the Peer Review.¹⁹
- In May, the 2017 SAR held its first meeting.²⁰

¹⁴ See SED Report at 161.

¹⁵ Part IV.C.5.

¹⁶ See SED Report at 156.

¹⁷ See SED Report at 162; *see also id.* at 156.

¹⁸ Part III.C.2.

¹⁹ Part III.C.2.

²⁰ Part III.C.2.

- In June, PG&E informed SED of data discrepancies in late ticket counts that PG&E had previously submitted.²¹
- In September, PG&E retained the third-party investigative firm, Guidepost, to investigate the late ticket undercounting issues. PG&E invited SED and the federal Monitor to participate in Guidepost’s interviews of PG&E employees.²²
- In November, PG&E informed SED via telephone that it had learned through discussions with L&M personnel about “what appear to be instances of intentional under-reporting of late tickets.”²³
- In December, PG&E informed SED that it would be updating its historical late ticket counts.²⁴
- In connection with the 2017 SAR, which continued into 2018, PG&E—among other things—developed a Compliance Plan, conducted listening sessions with L&M employees at various levels and locations, requested updates to the IrthNet late ticket counting logic, and held an “all-hands” meeting of locators, supervisors, and superintendents at which Mel Christopher discussed the late ticket undercounting issues and emphasized importance of accurate record keeping.²⁵
- PG&E received 988,591 tickets. Because PG&E corrected its IrthNet late ticket counting logic during 2017, it does not have a late ticket count for 2017 that was prepared in the same manner as the counts for 2012 through 2016. PG&E’s dig-in rate for 2017 was 1.89 dig-ins per thousand.

2018

- PG&E continued its 2017 SAR and development and implementation of the resulting Compliance Plan.²⁶
- PG&E arranged briefings for SED and the federal Monitor on historical findings, current workstreams, and planned corrective actions, including an in-person briefing by Bates White to facilitate SED’s understanding of the late ticket logic, its methodology, and its limitations.²⁷

²¹ Part III.C.1; *see also* SED Report Attachment 2.

²² Part III.C.1 & III.C.3.

²³ Part III.C.1; *see also* SED Report Attachment 59.

²⁴ *See* SED Report at 164.

²⁵ Part IV.E.

²⁶ Part IV.E.

²⁷ Part IV.D.2.

- PG&E retained Bates White, LLC, an economic consulting firm, to determine, to the greatest extent possible based on the data available in IrthNet, which tickets should properly be categorized as late during the period of January 2012 through February 2017.
- In May, PG&E provided SED with the Guidepost Report and Bates White Report, including the Bates White Report's updated late ticket counts.²⁸
- In June, PG&E submitted to SED a set of omnibus corrections to previously submitted data responses.²⁹
- As a result of the Company's investigations into L&M late ticket issues, three managerial employees who had responsibility over the L&M program during the relevant period are no longer employed by PG&E.³⁰
- In August, PG&E shared a draft of its Compliance Plan with SED and requested SED's feedback.
- By December 14, PG&E had completed 21 of the 30 corrective actions included in its Compliance Plan.³¹
- On December 14, the CPUC issued its OII.

²⁸ Parts III.C.3 & III.C.4.

²⁹ Part III.C.1.

³⁰ Part IV.D.4.

³¹ Part IV.E.

APPENDIX

B



Compliance Plan

*Updated 3-11-19

Corrective Action		Start Date	Due Date	CAP #	Progress Update
Cultural					
1	Continue crucial focus on Speak Up, Listen Up, Follow-up and PG&E's strict non-retaliation policy by implementing ongoing trainings and initiatives throughout the organization, including: <ul style="list-style-type: none"> Enterprise-wide Speak Up, Listen Up, Follow Up Plan 	October 2017	Ongoing	N/A Ongoing	
2	Continue developing a safe, non-retaliatory and non-punitive speak up culture to facilitate escalation of issues and attention from leadership including: <ul style="list-style-type: none"> Sharing lessons learned from Internal Audit's (IA) and Guidepost's review Frequent field visits from leadership team Seek continuous feedback from field employees Qualitative and quantitative metrics to assess employee engagement like Premier Survey and Operational Health Index (OHI) Create culture where leaders can explain that the drive, manner and progress towards the "zero" goal is most important, even if goal is not always achieved 	January 2018	Ongoing	N/A Ongoing	
3	Review L&M performance metrics and targets to promote reasonableness and attainability	March 2018	August 2018	15071072	CAP Completed
4	Continue reinforcing at various levels the importance of accurate records and data integrity as a key part of safety and compliance, as well as maintaining transparency and trust with regulators and stakeholders. Specific actions include: <ul style="list-style-type: none"> Gas Ops Quality Summit (Completed on 4/11/2018); System Wide Gap Training (Completed on 6/1/2018); ERIM Training (Annual; Ongoing) 	April 2018	Ongoing	N/A Ongoing	
5	Implement engagement plan (see attached) to share lessons learned and engage employees (L&M and beyond) in open and candid dialogue, including: <ul style="list-style-type: none"> Conduct listening sessions with L&M employees at various levels and locations (Complete by 8/31/2018) 	October 2017	Ongoing	N/A Ongoing	



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Process & Procedures				CAP #	Progress Update
1	Implement Process structure and assign Process Owner and Process Manager for ownership of action plan and process improvement.	January 2016	February 2017	115071075	CAP Completed
2	Develop a standby governance structure where the following items are addressed: <ul style="list-style-type: none">• Process adheres to field meet requirement• Define critical facilities that require standby• Update Standards and Procedures for system wide consistency• Communicate Standby Standards and Procedures• Develop a stand-alone Standby procedure manual similar to the Damage Prevention Handbook	March 2016	October 2017	115071140	CAP Completed
3	Review mapping process to identify gaps that create delays and partner with mapping process owner to identify opportunities to streamline process to reduce time of mapping updates and seek alignment with field conditions.	April 2017	June 2017	112804039	CAP Completed
4	Drive improvements to the Northern California One call program including: <ul style="list-style-type: none">• Share lessons learned from recent benchmarking with AGA Peer Review• Participate on One Call board to implement Common Ground Alliance (CGA) best practices• Work with Northern California One Call, implement 24-hour staffing in the 811 call center• Enhance One Call center to include Spanish speaking capability• Effectively resolve the due time issue on "remark" tickets• Evaluate and improve REG Code polygons so that tickets are generated when work is near PG&E assets	April 2017	May 2018	112804306	CAP Completed
5	Create control points that, if activated, prompt a comprehensive review of the breakdown to develop corrective actions that include process health and accurate reporting.	April 2018	August 2018	115073770	CAP Completed



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6	Foster a continuous improvement organization by identifying opportunities to improve by implementing key initiatives to improve process performance. <ul style="list-style-type: none"> Identify through casual analysis and communicate lessons learned for all at-fault Dig-ins. Implement Difficult to Locate process 	November 2018	February 2019	115682835	CAP Completed
Tools & Technology				CAP #	Progress Update
1	Assess the extent of condition for mismanagement of tickets through IA, Guidepost Investigation, Quality Assurance (QA) and Quality Control (QC) including: <ul style="list-style-type: none"> Identification and implementation of controls on current platform to limit the ability to inaccurately phase tickets as a stop gap prior to technology roll out Implement technology improvements to enhance work completion visibility and late ticket reporting. Retain third-party consulting firm, Bates White, to determine, to extent possible, historical late ticket counts (begun Feb. 2018) Benchmark with peer utilities to identify late ticket volume, throughput, and identify qualitative and quantitative metrics. 	November 2016	May 2018	115073773	CAP Completed
2	Review Operator Qualification (OQ) audit process with leadership team to confirm the use of proper validation of qualifications prior to performing work.	April 2017	November 2017	112804038	CAP Completed
3	Implement Lean Management system into the L&M organization to enable daily huddles to improve work visibility and enable issue identification and resolution.	October 2016	November 2017	115073881	CAP Completed
4	Develop daily work plan to enable timely L&M activities by allocating resources to priority work.	February 2018	May 2018	115073966	CAP Completed
5	Develop and Implement a Work and Resource Plan to proactively evaluate the resources necessary to perform that work to better enable proactive hiring strategies.	March 2018	February 2019	116505113	CAP Completed
6	Implement quality control process for proper calibration of tools.	January 2015	June 2017	115073987	CAP Completed



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7	Develop a Locate & Mark digital solution focused on improving process compliance and performance.	November 2018	April 2019	115682821	
Employees & Contractors				CAP #	Progress Update
1	Retain a third party to conduct a non-privileged investigation of the late ticket under-reporting issues and employee actions	September 2017	May 2018	115073989	CAP Completed
2	Analyze resource staffing requirements to reduce overtime and develop proper resource mix with internal employees and external contractors. Benchmark with peer utilities to align staffing to ticket volume.	February 2018	August 2018	115074016	CAP Completed
3	Improve employee engagement through: <ul style="list-style-type: none"> Non-monetary employee recognition program Recognition for positive contributions and accomplishments through intranet, Gas Matters, and One PG&E Corporate Communication platforms Benchmarking with peer utilities to identify successful retention strategies 	April 2017	June 2017	112804217	CAP Completed
4	Implement contractor safety program to increase contractor oversight.	February 2016	May 2016	115074944	CAP Completed
5	Deploy system-wide gap training to drive consistency for all employees including: <ul style="list-style-type: none"> IrthNet process and responses Documentation requirements Theory of locating and locating tools Locating Troubleshooting 	February 2018	June 2018	115075245	CAP Completed
6	Enhance PG&E Locate & Mark Training curriculum and qualifications course.	January 2018	August 2018	112804271	CAP Completed GAS-0351, GAS-0352, GAS-0353, GAS-0354
7	Increase accessibility of L&M handbook (paperback and electronic versions) for employees in the field.	December 2017	December 2017	115074847	CAP Completed



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Internal & External Controls				CAP #	Progress Update
1	<p>Improve quality management program through standardization and process improvement in field and data quality control and quality assurance by:</p> <ul style="list-style-type: none"> Aligning and documenting Quality Control and Quality Assurance activities Staffing quality control team to develop metrics and measure, monitor & report progress Reviewing ticket volume throughout the year and assess opportunities to increase quality checks dependent on the nature & volume of errors Reviewing 200 Facility Marked tickets per week through random selection across the territory to evaluate quality, compliance and timeliness Reviewing late tickets by Quality Control team to evaluate late tickets versus properly phased tickets 	June 2017	March 2018	115075312	CAP Completed
2	Implement constructive leadership review and quality check for all late tickets to help determine causes and inform corrective actions.	October 2017	December 2017	115075314	CAP Completed
3	Analyze at-fault dig-in trends to identify trends and determine root cause for system-wide awareness and corrective actions to reduce human performance issues. Develop an on-going process utilizing CAP to capture lessons learned from at-fault dig-ins to enable a feedback loop to continually improve.	January 2014	August 2017	115075385	CAP Completed
4	Perform review to validate corrective actions were effectively rolled out and implemented	July 2018	March 2019	115075379	
5	IA review to validate corrective actions were effectively rolled out and implemented	July 2018	April 2019	115075375	

APPENDIX

C

Directive 1: Contested Statements in the SED Report

In addition to the key issues identified in Part V.A, Appendix C identifies facts, findings, and conclusions in the SED Report that PG&E contends are incorrect or for which additional context may be instructive.

Row Number	Page Number	Contested Statement	Response
1	1	PG&E was aware about the falsification of its records by its employees and found such instances at least as early as 2009.	<p>PG&E does not understand this statement as drawing a <i>legal conclusion</i> regarding knowledge attributable to “the company,” but as making a factual assertion similar to Guidepost’s conclusions that certain information was “common knowledge.” This statement requires clarification.</p> <p>The Guidepost Report (and subsequently the SED Report) refer to “common knowledge among supervisors that locators entered false notes in the [IrthNet] database to avoid ‘going late,’”¹ and to problematic practices that were “common knowledge among L&M supervisors, and certain leaders also knew or should have known of these practices.”² PG&E does not contest that the efforts to make late tickets appear timely, and the ways of doing so, were known among certain employees. PG&E highlights this statement only as an instance in which it will be important for the proceedings not to paint with too broad a brush. That information was common knowledge among certain employees does not mean that it was known by all supervisors, and that certain leaders should have known does not mean that all leaders should have known.</p> <p>The record in this proceeding demonstrates the importance of examining the available information carefully. In concluding that the practices were “common knowledge” among supervisors, the Guidepost Report cites five supervisors and five other employees who believed the practices were well-known.³ At the same time, PG&E has identified over three hundred managerial employees with L&M responsibilities over this period; it cannot be assumed that each of them was (or was not) aware of the same facts.⁴ Further, each of the individuals who told Guidepost that false notes were “common knowledge” also told</p>

¹ SED Report Attachment 3 at SED-00040; SED Report at 21 (citing SED Report Attachment 3).

² SED Report Attachment 3 at SED-00014; SED Report at 16 (citing SED Report Attachment 3).

³ SED Report Attachment 3 at SED-00040 n.43.

⁴ See Ex. 62.

			<p>Guidepost that “it did not happen often or at all in” their own group,⁵ and very few individuals have claimed to have witnessed the conduct first-hand.⁶</p> <p>Again, this is not to claim that efforts to cause late tickets to appear as timely did not occur. Rather, this is simply to acknowledge that if it becomes necessary in this proceeding to assess the conduct of particular personnel, it will be important to review any broad claims about “common knowledge” on an individualized basis regarding each individual’s knowledge. <i>See</i> 90 Day Report, Part V.A.3.</p> <p>In addition, the 2010 Quality Assurance Audit on which this is based does not conclude that there were instances of falsification of records by employees. Rather, the 2010 Quality Assurance Audit posited that the renegotiation of tickets shortly before coming due “strongly suggest[ed] that the [L&M] employee was running late and use[d] the ‘negotiated new start date/time’ field in IRTHnet to prevent a late response.”⁷ However, the audit’s methodology did not permit it to actually conclude that a ticket properly negotiated shortly before the due time was actually negotiated improperly or that there was any “falsification of ... records by ... employees.” Rather, the audit simply observed the close timing of several tickets and noted that the timing suggested they could have been renegotiated improperly.</p>
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⁵ SED Report Attachment 3 at SED-00040 n.43.

⁶ SED Report Attachment 57 at SED-02062, line 22 to SED-02063, line 6 (Walker); SED Report Attachment 58 at SED-02331, line 21 to SED-02332, line 5 (White).

⁷ Ex. 5 at 1 (emphasis added).

2	1	On May 2, 2018, PG&E sent a letter to SED Director attaching an investigative report (“Guidepost Report”) by Guidepost LLC (“Guidepost”) and a report updating the number of PG&E’s late tickets between January 2012 and February 2017 by Bates White LLC (“Bates White”).	<p>It is important to understand what the Bates White work does and does not do. As stated in PG&E’s May 2, 2018 letter to Director Malashenko, Bates White did not actually determine how many late tickets there were.⁸ Instead, the report calculated, “to the greatest extent possible based on the data available in the electronic database that PG&E uses to track its responses to USA tickets, <i>which tickets should be properly categorized as late.</i>”⁹ PG&E agrees with SED that the automated search methodology for evaluating the IrthNet data could not fully correct for the “human element” of how locators recorded, in notes fields, their interactions with excavators.¹⁰</p> <p>PG&E also agrees that Bates White’s late ticket work was limited to analyzing data in IrthNet. Bates White did not <i>audit</i> PG&E’s 4.8 million tickets; it developed a set of rules and criteria to apply to millions of tickets and their various fields and notes. Bates White developed a set of rules to deal with these limitations. The rules were intended to overcount rather than undercount late tickets, and Bates White concluded that its logic was “conservative, and counts as late some tickets that may in fact be timely.”¹¹</p> <p>The Bates White approach was valuable not because it produced a definitive list of late tickets. It did not. It applied a system of rules and presumptions designed to indicate the potential scope of the problem, which was an appropriate and important step for PG&E to take. But the Bates White analysis is not itself evidence that any particular ticket is late. To establish that particular tickets are late, the facts surrounding those tickets would have to be reviewed on an individual basis. <i>See</i> 90 Day Report, Parts IV.D.3, V.A.4.</p>
3	2	Each late ticket is a violation of the California Government Code Section 4216 as well as PG&E’s own damage prevention procedures.	In certain circumstances, multiple instances of related conduct can constitute a single offense rather than multiple offenses. Whether each late ticket gives rise to a separate offense will depend on the nature and circumstances of the ticket. <i>See</i> 90 Day Report, Part VII.B.2; <i>see also</i> 90 Day Report, Part VI.B.

⁸ *See* SED Attachment 4 at SED-00049.

⁹ *Id.* (emphasis added).

¹⁰ Ex. 31 at 2.

¹¹ *Id.*

4	2	Bates White’s updated annual late tickets counts between 2012 and 2016 were tens of thousands higher than the PG&E’s internal annual late tickets counts for these years.	<i>See</i> Row 2 above.
5	2-3	SED is concerned that accurate counts of late tickets would have allowed PG&E to make better decisions on its staffing and could have improved PG&E’s on-time performance responding to excavation notification or USA requests, and thereby reduce the risk of an actual or potential dig-in.	PG&E does not dispute that the problems were significant, and PG&E has described its concerns with and responses to the problems. It is important to understand the precise nature of the safety risks at issue. First, it should be noted that the most relevant safety risk comes not from inaccurate historic late ticket counts, but from actual late tickets. As PG&E has explained, the L&M process is just one part of a Comprehensive Damage Prevention Program that consists of several layers of protections. The program is designed so—and the data show that—the likelihood of a dig-in resulting from a late ticket is extremely small, and timeliness is far from one of the key drivers of dig-ins. For additional context, see 90 Day Report, Parts II.B.1 and V.A.5.
6	3	As also discussed later, each failure of PG&E to respond to an USA request in a timely fashion increased the risk of another catastrophic gas incident, regardless of whether there was an actual hit or “dig-in” on PG&E’s infrastructure, or not.	<i>See</i> Row 5 above.
7	4	Late Ticket Logic and Count by Bates White	<i>See</i> Row 2 above.

8	16	<p>Locate and Mark records to “stop the 48-hour clock” were common knowledge among Locate and Mark supervisors, and “certain leaders also knew or should have known of these practices.” Based on SED’s review of the report, one such leader is Mr. John Higgins, who joined PG&E in 2012. He had direct responsibility for damage prevention matters.</p>	<p><i>See</i> Row 1 above.</p> <p>While PG&E does not contest that John Higgins was aware of issues in late ticket counts in 2012, it is important to be precise about what he knew and did not know. The SED Report uses general phrases like “falsifying records.” The problem with these generalized phrases is that they lump very different types of conduct into a single category. There were actually several distinct types of conduct, and the distinctions were important as PG&E determined how best to respond to the issues. <i>See</i> 90 Day Report, Part V.A.1.</p> <p>It is also important to recognize the context in which information became known. To the extent this statement refers to information available to Mr. Higgins in 2012-2015, additional context is available in 90 Day Report, Part IV.C.4. To the extent it refers to information available to Mr. Higgins in 2016, additional context is available in 90 Day Report, Part IV.C.5.</p>
9	18-19	<p>“Vince Whitmer, of QM, told us that he had conducted an assessment of a sample of supposedly timely tickets every year since 2011, and had found that his samples contained numerous instances of tickets which had not been renegotiated properly because there had not been ‘positive contact’ with the excavator, or because the job had been phased inappropriately. Whitmer reported these findings to supervisors and locators in 2011 and 2012, and after L&M became a separate function, to ‘the director’ in 2013, 2014 and 2015. The director was Joel Dickson.”</p>	<p>For additional context on this statement, see 90 Day Report, Part IV.C.5. While personnel within the L&M organization may have been aware of Quality Management’s concerns prior to 2016, PG&E senior leadership was not made aware of Quality Management’s concerns until May 2016.</p>

10	22-23	<p>In 2009, The Gas Operations Quality Assurance group (“QA”) conducted an audit of the Damage Prevention department (Audit Number 2009-0115) and reported on its findings on March 10, 2010. QA reported in its Nonconformance Report (“NCR”) that “3.8% of all September 2009 tickets indicated that a new start date/time was negotiated. The majority of these tickets were entered into IRTHnet as “negotiated” primarily as a means to keep the ticket from going overdue. As a result, incorrect data is being used to report on-time results.” The NCR further explained that “employees are indicating that a new start date/time was negotiated, when, in fact, no mutual agreement was reached. Furthermore, when the negotiation occurred after the date/time the ticket originally came due, the ticket is not included in the reporting of late tickets.” Finally, QA was told during the audit that some Mark & Locate employees entered comments into IRTHnet stating that a new start</p>	<p>The passage from the Guidepost Report that SED incorporates here accurately quotes the 2010 Quality Assurance Audit’s summary, but the audit summary quoted here does not capture the full context of the 2010 Audit’s findings. <i>See</i> Row 1 above for a discussion of the 2010 Quality Assurance audit.</p>
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		<p>date/time had been negotiated specifically as a “work around” to keep from going late. The NCR analyzed the impact of such practices as follows: “Incorrect data is being used to report on-time results. This data, in turn makes the M&L on-time performance appear better than it is. This may result in too few resources being provided to Mark & Locate personnel to timely respond to tickets”.</p>	
11	23	<p>By 2011, there had been little change. In 2011, PG&E’s Internal Audit Group (“IA”) conducted an assessment of the damage prevention program, upon which it reported on February 10, 2012. The report noted that the earlier assessments by IA and QA regarding “recordkeeping processes used to establish the on-time performance of [PG&E’s] mark and locate program had a system glitch, in that the time-clock feature of the software would be halted just by opening the record without performing the work or documenting an agreement</p>	<p>While Internal Audit concluded that the “glitch” was fixed in December 2012, it was actually not fixed until 2017. <i>See</i> 90 Day Report, Part V.A.2. For additional context on the glitch and the 2012 Internal Audit, see 90 Day Report, Parts II.B.4.f, IV.C.2.</p>

		<p>with the excavator to perform the work. As a result, the report for on-time performance using this software showed a 99% on-time response for 2010 that cannot be relied upon.” As of the date of the report, that deficiency had not been corrected. We note that the 2009/10 materials produced to us contained no discussion of such a “system glitch”, and instead, as described above, discussed deliberate “work arounds” by employees, with the intent to avoid tickets from “going late”.</p>	
12	23-24	<p>Then, once Joel Dickson became the Director of the Locate and Mark department, his focus of “zero late tickets”[*] added pressure to the locators as stated in the Guidepost Report, “[Locators] felt great pressure to meet the 48-hour requirement, particularly from 2013 to 2016, when the L&M Director made it clear that he would not tolerate any</p>	<p>While there were times when L&M staff was stretched thin, it is also important to recognize that PG&E dedicated significant additional resources to L&M during this period, that PG&E leadership expressed its willingness to do so, and that L&M management expressly informed PG&E’s senior leaders that the L&M organization had the resources it needed. <i>See</i> 90 Day Report, Part III.A.</p> <p>Additionally, the assertion that PG&E struggled to keep up with demand should be placed in context. Even under the Bates White analysis, which intentionally overcounted late tickets in order to assess the scope of the late ticket data problem, PG&E still completed between 95.5% and 97.8% of its tickets on time.¹²</p>

¹² Ex. 31 at 5.

		violation of the 48 hour requirement.”	
13	25	PG&E’s QA also reported that “incorrect data is being used to report on-time results”* as early as 2010 in its Nonconformance Report, and PG&E was not able to track timeliness of the locators’ completion of USA tickets until IrthNet became its ticket management tool in 2008.	The passage from the Guidepost Report that SED incorporates here accurately quotes the 2010 Quality Assurance Audit’s summary, but the audit summary quoted here does not capture the full context of the 2010 Audit’s findings. <i>See</i> Row 1 above for a discussion of the 2010 Quality Assurance audit.
14	26	PG&E had reasons to question the accuracy of its on-time results or on-time performance on an ongoing basis, beginning as early as 2010.	<p>With respect to PG&E’s reason to question the accuracy of late ticket information in 2010, it is important to consider the full context of the 2010 Audit’s findings. <i>See</i> Row 1 above for a discussion of the 2010 Quality Assurance audit.</p> <p>With respect to the reasons PG&E had to question the accuracy of late ticket information on an “ongoing basis,” additional context is provided in 90 Day Report, Parts IV.C.2-5.</p>
15	26	“Jesus Soto, in an effort to address staffing and other issues in Damage Prevention, convened a Special Attention Review (‘SAR’) on November 19, 2012. The SAR document noted that both dig-in rates and at fault dig-in rates had improved over a 12-month rolling period. The document cited an	As a point of clarification, the 2012 SAR began in November 2012. The SAR lasted well into 2013. ¹³ For additional context on the 2012 SAR, see 90 Day Report, Part II.B.4.a. Further, as noted in the 90 Day Report, Part IV.C.4, the reference to responding to approximately 60% of tickets on time should not be taken literally.

¹³ *See, e.g.*, Ex. 51 at 1.

		on-time ticket completion rate of 98.7% for the year 2012. Curiously, several pages later, the document stated ‘we respond to approximately 60% of tickets on time’. It alluded to poor tools and a high ‘rate of churn role (estimated 80% turnover in last two years).’”	
16	27	Mr. Nick Stavropoulos said under oath that PG&E do not use late tickets as a metric within which they pay their incentive compensation. However, the Guidepost Report indicates that the late ticket count was a metric for STIP until December of 2012.	While the passage in the Guidepost Report that SED relies on here accurately quotes an email indicating that late tickets were removed from the STIP metric in December 2012, the statement in that email was incorrect. Late tickets were not part of the STIP metric. As discussed in 90 Day Report, Parts IV.A.4.b and V.A.6, PG&E’s STIP scorecards for 2010, 2011, and 2012 clearly demonstrate that late tickets were <i>not</i> a metric. ¹⁴
17	28	For reasons not known to SED, PG&E decided to remove late ticket counts as a “success metric” related to STIP on December 14, 2012. In other words, by the end [of] 2012, the Locate and Mark supervisors’ compensations from PG&E’s STIP were no longer related to the on-time performance and number of late tickets. . . .	See Row 16 above.

¹⁴ See Ex. 45 at AtchC-1 to AtchC-3.

		<p>SED infers that for some time between 2008 and 2012, the late ticket metric was related to PG&E’s Locate and Mark supervisors’ STIP. During this period, supervisors would have had perverse incentives as part of their compensation to allow their locators put false notes on tickets if the tickets could not be responded to on time.</p>	
18	28-29	<p>In the words of the Guidepost Report, “supervisors’ performance objectives—as well as Jeff Carroll’s— included an item relating to reduction in late tickets. For example, one supervisor’s performance goals dated August 5, 2015 include the following goal: ‘Reduce late tickets to ZERO’.”</p>	<p>PG&E acknowledges that in 2014, 2015, and 2016, included among the annual goals of some Superintendents and Supervisors was a goal to reduce or eliminate late tickets. It is important to note, however, that these goals regarding late tickets were not the sole basis on which any employee was rated. Rather, these goals were coupled with a number of others that were focused on more direct measures of safety. Any goals related to zero late tickets were therefore part of an overall message that the employee’s performance expectations were to contribute to the reduction of dig-ins and the general safe operation of the L&M program. <i>See</i> 90 Day Report, Parts IV.A.4.a, V.A.6.</p>
19	37	<p>According to the quoted section above written by a PG&E Field Engineer, PG&E’s Locate and Mark department is severely understaffed, and PG&E’s internal Gas Construction projects not being marked timely greatly increase cost and risk for safety.</p>	<p>While there were times when L&M staff was stretched thin, it is also important to recognize that PG&E dedicated significant additional resources to L&M during this period, that PG&E leadership expressed its willingness to do so, and that L&M management expressly informed PG&E’s senior leaders that the L&M organization had the resources it needed. <i>See</i> 90 Day Report, Part III.A. <i>See</i> Row 5 above.</p>

20	75	This also suggests a locator could avoid a ticket from being recorded as late if the locator knew about this system's flaw. This issue was discovered as early as 2009 as shown by the above quoted finding. PG&E was operating and making management decisions for its damage prevention program with these inaccurately high on-time performance percentages since as early as 2009. As also shown by the above quoted finding, in 2010, the on-time performance generated using this software was 99 percent and it was unreliable.	PG&E believes that this statement would benefit from additional context. <i>See</i> Row 1 above for a discussion whether certain practices were “common knowledge” among supervisors.
21	76	As part of a drop down menu, “voicemail” was added as an option to show the method of contact as part of the reconfiguration of the database.	Voicemail was not added as an option during this time; it was removed as an option during this time. ¹⁵ <i>See</i> 90 Day Report, Parts IV.A.1, IV.C.3.
22	77	Based on the May 2018 Revised PG&E Late Tickets Count in Bates White's Report, the total number of late tickets in 2016 was 30,684 instead of 44. PG&E	<i>See</i> Row 2 above.

¹⁵ SED Report Attachment 13 at SED-00317, lines 2-4, 15-17 (Stavropoulos).

		undercounted the 2016 late tickets on the order of tens of thousands.	
23	85	PG&E claimed that late response could be ruled out as a cause for 164 of the dig-ins, and there were 31 dig-ins on which a late response by PG&E may have contributed to, or there is insufficient evidence to determine whether the late response contributed to, the incident.	As a result of additional work by Bates White, these figures have been updated. <i>See</i> 90 Day Report, Part III.C.4.b.
24	86	SED asked Mr. Stavropoulos, “The ticket is generated. What is PG&E's responsibility to that?” He replied, “It's responsible to locate and mark the facilities within the required period of time.” Then SED asked, “And Mr. Stavropoulos, if they don't mark in the correct amount of time, do you expect the excavator not to begin work?” He replied, “I think the excavator might assume that there are no facilities in the area and start excavation.”	Stavropoulos's factual assertion on what excavators might do is not a conclusion on what is permitted under the law. California Government Code Section 4216.2(g) makes clear that “an excavator shall not begin excavation until the excavator receives a response” from the facility owner. ¹⁶ <i>See</i> 90 Day Report, Part II.B.1.

¹⁶ Cal. Gov't Code § 4216.2(g); *see also* 8 Cal. Code Regs. § 1541(b)(1)(A).

25	88	According to the quoted section above written by a PG&E Field Engineer, PG&E's Locate and Mark department is severely understaffed, and PG&E's internal Gas Construction projects not being marked timely greatly increase cost and risk for safety.	<i>See</i> Row 19 above.
26	98	However, as stated in the Guidepost Report, "it was common knowledge among supervisors that locators entered false notes in the IRTHnet database to avoid 'going late'" and this statement was made under the section concerning the period between 2013 and 2017.	<i>See</i> Row 1 above for a discussion whether certain practices were "common knowledge" among supervisors.
27	105	According to Mr. Soto's statements above, he focused on dig-in rate as part of his management review. However, during Ms. Jennifer Burrows' Examination Under Oath with SED, she heard Mr. Jesus Soto saying "late tickets are of the utmost importance"	To the extent that these statements are interpreted to suggest that they are inconsistent, they are not. The dig-in rate is the key safety metric in the Damage Prevention process. <i>See</i> 90 Day Report, Part II.B.3. Soto also emphasized that responding to tickets in a timely fashion is an important managerial metric, ¹⁷ and important to the Company's credibility with excavators. ¹⁸

¹⁷ SED Report, page 105.

¹⁸ SED Report, Attachment 52 at SED-01757, lines 5-18 (Burrows).

28	107	According to Mr. Soto's statements above, Mr. Soto did not talk to Mr. John Higgin about what he heard from the QA team.	PG&E believes that this statement would benefit from additional context. In the ordinary course of their work together, when Soto directed Higgins to look into a potential problem, Higgins was responsible for investigating the issue further and returning to Soto if the issue merited additional attention from Soto. If Higgins did not return to Soto, Soto understood that either the concerns were unfounded or Higgins, as Vice President, Gas Transmission & Distribution Operations, could resolve the issue without requiring Soto's assistance. Higgins did not return to Soto following his discussions looking into the late ticket issues that Quality Management had described. <i>See</i> 90 Day Report, Part IV.C.5.
29	109	According to Mr. Soto's statements above, there is a concern that the excavator would start work that could lead to a dig-in if facilities were not located and marked.	<i>See</i> Row 19 above.
30	110	According to Mr. Soto's statements above, he has not used achieving a goal of zero late tickets as a performance criteria and he was not aware of any financial performance associated with zero late tickets.	<i>See</i> Row 18 above. In addition, late tickets were not part of the STIP metric. As discussed in 90 Day Report, Parts IV.A.4.b and V.A.6, PG&E's STIP scorecards for 2010, 2011, and 2012 clearly demonstrate that late tickets were <i>not</i> a metric. ¹⁹
31	115	Yet, he still had himself and other PG&E employees the expectation to meet that goal.	Directives like the "drive to zero" were not the only messages being communicated to PG&E's employees. More appropriate messages that paired the Company's goal of reducing late tickets with the importance of accurate data were common, as discussed in the 90 Day Report, Part IV.B.2. PG&E provided incentives for employees to reduce dig-ins, not falsify late ticket data. <i>See</i> 90 Day Report, Part V.A.6.
32	118	According to Ms. Burrows' statements above, Mr. Joel	There were not two separate "metrics" for counting late tickets. Rather, there was a single late ticket total, produced by an IrthNet late ticket report that was based on information

¹⁹ *See* Ex. 45 at AtchC-1 to AtchC-3.

		Dickson’s late ticket metric was not the same metric that she had. SED asked Ms. Burrows, “Did your metric capture more late tickets than [Joel’s metric]?”	recorded in the IrthNet database. Separately, PG&E’s Quality Management team reviewed samples of completed L&M jobs, essentially “following on” after locators had finished their work, and performing an on-site review according to a predetermined scorecard. Quality Management’s role was not to create a metric of total late tickets, but to determine whether small samples of tickets were properly handled based on an in-field review. ²⁰ See 90 Day Report, Parts II.B.4.f.i, IV.C.5.
33	118	According to Ms. Burrows’ statement above, her metric did not capture late tickets in Mr. Joel Dickson’s metric and her team did not double count late tickets.	See Row 32 above.
34	119	According to Ms. Burrows’ statements above, Mr. Joel Dickson knew about a different metric that she had.	See Row 32 above.
35	126	According to Mr. Dickson’s statements above, the investigation outcome of alleged falsifications was more about correcting a behavior and less about finding guilt or fault necessarily.	This explanation is not a complete explanation of PG&E’s investigative and disciplinary process. In some cases involving inaccurate recordkeeping, identifying necessary corrective steps will be the primary focus. In other cases, such as outright falsification of documents, PG&E’s Corporate Security team investigates the issues and appropriate disciplinary actions—likely more akin to the “finding guilt or fault” that the SED Report refers to—may be taken.
36	136	Ms. Burrows pointed out that Mr. Joel Dickson had his own late tickets metric that was separate from hers as she stated,	See Row 32 above.

²⁰ SED Report Attachment 59 at SED-02407.

37	137	Then SED asked, “And he chose to keep the one that he was using?” She replied, “Yes.” Then SED asked, “Did your metric capture more late tickets than his?” She replied, “Yes.	<i>See</i> Row 32 above.
38	142	based on Mr. Soto’s responses to SED’s questions above, he did not talk to Mr. John Higgins about what he heard from the QA team after asking Mr. John Higgins to meet with them because “[i]t was not something that he was shocked or stunned”.	PG&E believes that this statement would benefit from additional context. Soto explained that he was not “shocked or stunned” when Quality Management brought the late ticket discrepancy to him because PG&E asks their employees to “be transparent in terms of what they find.” ²¹ Mr. Soto explained that “whether it’s trucks or training or tools or union issues – the [gamut] of things that come [his] way [is] substantial.” ²² <i>See</i> 90 Day Report, Part IV.C.5.
39	143	According to Ms. Burrows’ statement above, Mr. Vince Whitmer had heard that Mr. Joel Dickson had personally called the supervisors and threatened that they would be terminated if they let tickets go late.	PG&E believes that this statement would benefit from additional context. <i>See</i> Row 31 above.

²¹ SED Report Attachment 35 at SED-00899, lines 3-4 (Soto).

²² *Id.*

40	145	According to Mr. Walker's statement above, the director, superintendents, and supervisors would know, based off of QA findings, about the way of changing a ticket to phased so that it did not show as being late.	<i>See</i> Row 1 above for a discussion whether certain practices were "common knowledge" among supervisors.
41	149-150	Pressure to lose their job, be fired, be reprimanded, it gets to that point. It was a pretty heavy thing that was laid down from supervisors, and they just reiterated and hammered to the locators we don't want to get any late tickets, we don't want to be on that report, we don't want to be on that report in the morning.	PG&E believes that this statement would benefit from additional context. <i>See</i> Row 31 above.
42	153	I believe that there's so much pressure on them to not have late tickets that some of them feel that there's no choice. But I don't know if – I've never heard anybody tell them that there's going to be consequences if they had late tickets, and therefore they falsified records. I just have seen the pressure put on locators and the supervisors and then Steven Walker who handles UtiliSphere.	PG&E believes that this statement would benefit from additional context. <i>See</i> Row 31 above.

43	158 (part 1 of 4)	<p>The data request response PG&E Index 10707.08 Supp02 along with the new set of PG&E self-reported late ticket data was provided to SED about two weeks prior to the scheduled Examinations Under Oath of three current PG&E employees (Katherin Mack, Vanessa White, and Steven Walker), who all indicated to SED in their Examinations Under Oath that PG&E locators had inappropriately rescheduled tickets to avoid them from becoming “late”. It is unclear to SED if the subpoenas of these PG&E’s personnel had any connection with PG&E releasing these QM findings to SED, but the timing is concerning.</p>	<p>The SED Report states that the timing of PG&E providing this information shortly before SED conducted certain EUOs is “concerning.”²³ In fact, the timing of the submission was driven by PG&E’s discovery, through the AGA Peer Review in March 2017, and a SAR that PG&E initiated a few weeks later that late ticket data issues it had thought were resolved in fact had persisted. <i>See</i> 90 Day Report, Part III.C.2.</p>
44	158 (part 2 of 4)	<p>SED asked, “Did you hear PG&E employees who were recording the tickets tell you that they felt like they no option?” She replied, “Absolutely.” Then SED asked, “And by ‘no option,’ that means no option but to change the due dates on the late ticket without getting</p>	<p>PG&E believes that this statement would benefit from additional context. <i>See</i> Row 31 above.</p> <p>PG&E also notes that it is important to distinguish between several distinct types of conduct, as the distinctions were important as PG&E determined how best to respond to the issues. The nature of the conduct, and the appropriate response, differs in the various cases. <i>See</i> 90 Day Report, Part V.A.1.</p>

²³ SED Report at 158.

		<p>agreement from the excavators?” Ms. Mack replied,</p> <p>Or phase them inappropriately or close them out. It's not always changing the date. It's could be calling them three times and then closing the ticket out without locating it, as no response from excavator, when they should have just gone out and located. There was no reason that they really needed to contact them other than to say, I can't get to it. And then the contractor has to re-call that ticket in, and then they get another 48 hours. So I think there's different ways that that happens besides just changing the date, is all I'm saying. But I don't think it's the locators' fault or the supervisors. It travels downhill from, you know, leadership.</p>	
45	158-159 (part 3 of 4)	<p>SED asked Ms. White, “Are you aware of others who falsified locate and mark records?” She said, “Yes.” Then SED asked, “Who else?” She said, “Well, I just reviewed tickets where it was</p>	See Row 44 above for a discussion of the distinct types of conduct at issue.

		<p>responded to as a phase ticket.” Then she added, “Knowing that it was a way of getting a response in there so the ticket wasn't late, and also speaking to my husband I was informing him, you know, don't do that.” Ms. White continued, “And then he let me know that when he was hired on I believe that was his instruction from his leadership to put in that response.”</p> <p>See Attachment 57 - Examination Under Oath transcript of Steven Walker, p. 31-33.</p> <p>SED asked Mr. Walker, “What are the examples, in your experience, of tickets that you've seen that are shown -- were shown to not be late when in fact the ticket was late?” Mr. Walker described examples of three different ways this occurred, as shown below.</p> <p>Example One:</p> <p>Mr. Walker noted, “If somebody phased it unnecessarily, say it's a single service to an address, rather</p>	
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		<p>than, you know, a block job, and they phase that before the ticket was due.”</p> <p>Example Two:</p> <p>Mr. Walker noted, “Renegotiating a ticket unilaterally, renegotiating a start time unilaterally” and by unilaterally, he meant, “I would say by leaving a voice message saying they were going to have to push out the work start time without a mutually agreed upon time with the excavator.”</p>	
46	158-159 (part 4 of 4)	<p>Example Three:</p> <p>Mr. Walker’s last examples had to do with inclement weather: The only other one that comes to mind would be inclement weather. If it was used when it was raining, and then it stopped raining, and they put inclement weather. Because you can't put paint down on the ground when it's wet, but if it was say a break in the rain and they responded as inclement weather.</p>	See Row 44 above for a discussion of the distinct types of conduct at issue.

47	161	Bates White was an independent contractor hired by PG&E to count PG&E's late tickets. Bates White's late tickets counts (See Table 1) in each year from 2012 to 2016, as of May 2018, were the following: 13,062 (2012), 28,829 (2013), 27,736 (2014), 32,985 (2015), and 30,684 (2016).	<i>See Row 2 above.</i>
48	165	PG&E hired Bates White, an economic consulting firm, to determine which tickets should be properly categorized as late during the period of January 1, 2012 to February 28, 2017.	<i>See Row 2 above.</i>
49	166	SED also has concerns with the "accuracy". SED is unaware that PG&E or Bates White had contacted any excavators to verify the accuracy of the responses and notes (entered by PG&E locators) on any tickets for this late tickets count.	<i>See Row 2 above.</i>
50	168	The 195 dig-ins are dig-ins that were reported in the 2012 Gas Quarterly Incident Report and in the PG&E Master Dig-In File, and they were within 28 days of the request date of	The 195 dig-ins referred to in this passage reflect only those dig-ins that were reported in those files, were within 28 days, <i>and also</i> contained a ticket number in those databases. Dig-ins that did not contain a ticket number in the databases were not encompassed in the 195 dig-ins. These figures are being updated in connection with additional work. <i>See</i> 90 Day Report, Part III.C.4.b.

		the late tickets identified by Bates White.	
51	169	Figure 12 shows PG&E late tickets count from January of 2012 to February of 2017 as of May of 2018.	<i>See</i> Row 2 above.
52	171	Some excavators may have believed that they were clear to start their excavations after they have waited the required time. They may have assumed that there were no PG&E's facilities if they did not see any markings, or they may have observed other USA markings and assumed that PG&E responded. The gas incident in section VII.A of this report shows an example of an excavator damaging PG&E's gas pipeline when he assumed that he was clear to start because he had waited 48 hours and observed yellow markings on the ground. However, the yellow markings were not PG&E's response to his ticket. Unfortunately, other excavators who did indeed "call before you dig" may be under pressure to begin digging before a tardy locator	PG&E believes that this statement would benefit from additional context. Under California Government Code Section 4216.2(g), "an excavator shall not begin excavation until the excavator receives a response...." <i>See also</i> 8 Cal. Code Regs. § 1541(b)(1)(A). Additionally, see Row 5 above for a discussion of the related safety risks.

		actually does the marking. Each time PG&E did not respond to a USA ticket in a timely manner, there was a higher chance of the excavator starting its excavation before PG&E's subsurface installations were marked, given that there is a cost for the wait time.	
53	173	in instances where PG&E falsified its USA tickets to appear as on-time when they were really late, this would result in PG&E not being able to properly identify who is at fault or determine the amount of fault shared on a dig-in.	<i>See Row 5 above.</i>
54	175	These things show PG&E's knowledge that it practiced falsifying its Locate and Mark records and also practiced over-stating locate and mark on-time performance.	<i>See Row 1 above for a discussion whether certain practices were "common knowledge" among supervisors.</i>
55	176	As illustrated in Sections VI through X the practice of falsifying its safety records to conceal violations of the excavation law was evident.	<i>See Row 1 above for a discussion whether certain practices were "common knowledge" among supervisors and Row 8 above for a discussion of the distinct types of conduct at issue.</i>

56	176	It resulted in complete breakdown in PG&E's compliance with damage prevention regulations and procedures.	<i>See</i> Row 5 above.
57	176	SED's preliminary investigation has demonstrated; <ul style="list-style-type: none"> • instances of falsification of safety records, • certain leaders' knowledge about PG&E's falsification of safety records, • failure to eliminate the practice of falsification even though it was reported repeatedly since 2009, • instances of under-reporting the number of violations of the excavation requirement internally and to SED. 	<i>See</i> Row 1 above for a discussion whether certain practices were "common knowledge" among supervisors and Row 8 above for a discussion of the distinct types of conduct at issue.
58	176	All of this collectively resulted in over tens of thousands separate and distinct violations of the excavation law and damage prevention regulations.	<i>See</i> Row 3 above.
59	176-177	The problems presented significant risks to the public	<i>See</i> Row 5 above.
60	177	However, he did not follow up with the John Higgin about the late tickets issue.	<i>See</i> Row 28 above.

61	177	Further SED notes that tens of thousands of late tickets were identified by a consultant hired by PG&E in each year from 2012 to 2016.	<i>See</i> Row 2 above.
62	177	PG&E undercounted its late ticket in each of these years on the order of tens of thousands.	<i>See</i> Row 2 above.
63	177	PG&E was aware that its system did not properly record late tickets at least as early as 2009 and continued to report to its leaders repeatedly about this issue.	<i>See</i> Row 1 above for a discussion of the 2010 Quality Assurance audit.

APPENDIX

D

Directives 2 and 3: Contested Statements in the Guidepost Report

In addition to the key issues identified in Part V.A, Appendix D identifies facts, findings, and conclusions in the Guidepost Report that PG&E contends are incorrect or for which additional context may be instructive.

Row Number	Bates Number	Contested Statement	Response
1	SED-00011	As will be explained in more detail below, upon such notice of an excavator's intent to excavate, utilities, pursuant to California law, have 48 hours to locate their underground facilities, such as gas pipelines, and mark them, as a means to indicate the existence of the subsurface installations, and so that the excavators do not mistakenly damage the facilities.	<p>The Guidepost Report describes the legal standard as requiring the locating and marking of facilities within 48 hours of an excavator's notice of intent to excavate. Government Code § 4216.2 actually provides for "two working days," not 48 hours. A "working day" has been defined by Government Code § 4216 since January 1, 2017 as "a weekday Monday through Friday ... except for federal holidays and state holidays."</p> <p>Similarly, both PG&E's October 2013 Damage Prevention Handbook and October 2015 Locate and Mark Handbook provide that "Tickets MUST be responded to within 2 workings days, excluding weekends and holidays OR by the start date of the excavation, whichever is greater."¹</p>
2	SED-00011 FN 1	Because the law ("hereafter" "4216") allows as little as two working days' notice, in actual practice, the requirement is treated as a requirement of action within 48 hours and PG&E operated on that basis in the years in question. We will therefore refer to this legal requirement accordingly.	<i>See Row 1 above.</i>

¹ SED Report Attachment 9 at SED-00159; SED Report Attachment 11 at SED-00189.

3	SED-00011	PG&E already had been tracking and reporting late responses for years but had also determined that many responses which appeared timely were in fact, upon further investigation, actually late.	PG&E clarifies that the “reporting” that the Guidepost Report refers to here appears to refer to PG&E’s own internal late ticket reports. Prior to the start of SED’s informal investigation, late ticket reports were not regularly requested by any government agency.
4	SED-00014	Locators reacted by making false notations in their records, which had the effect of “stopping the 48-hour clock”. This had the effect of creating records which appeared timely, but which upon further examination, were actually late.	The Guidepost Report uses general phrases like “falsification of safety records,” and “false notations.” The problem with these generalized phrases is that they lump very different types of conduct into a single category. There were actually several distinct types of conduct, and the distinctions were important as PG&E determined how best to respond to the issues. <i>See</i> 90 Day Report, Part V.A.1.
5	SED-00014	These practices were common knowledge among L&M supervisors, and certain leaders also knew or should have known of these practices.	<p>The Guidepost Report (and subsequently the SED Report) refer to “common knowledge among supervisors that locators entered false notes in the [IrthNet] database to avoid ‘going late,’”² and to problematic practices that were “common knowledge among L&M supervisors, and certain leaders also knew or should have known of these practices.”³ PG&E does not contest that the efforts to make late tickets appear timely, and the ways of doing so, were well-known among certain employees. PG&E highlights this statement only as another instance in which it will be important for the proceedings not to paint with too broad a brush. That information was common knowledge among certain employees does not mean that it was known by all supervisors, and that certain leaders should have known does not mean that all leaders should have known.</p> <p>(continued below)</p>

² SED Report Attachment 3 at SED-00040; SED Report at 21 (citing SED Report Attachment 3).

³ SED Report Attachment 3 at SED-00014; SED Report at 16 (citing SED Report Attachment 3).

			<p>The record in this proceeding demonstrates the importance of examining the available information carefully. In concluding that the practices were “common knowledge” among supervisors, the Guidepost Report cites five supervisors and five other employees who believed the practices were well-known.⁴ At the same time, PG&E has identified over three hundred managerial employees with L&M responsibilities over this period; it cannot be assumed that each of them was (or was not) aware of the same facts.⁵ Further, each of the individuals who told Guidepost that false notes were “common knowledge” also told Guidepost that “it did not happen often or at all in” their own group,⁶ and very few individuals have claimed to have witnessed the conduct first-hand.⁷</p> <p>Again, this is not to claim that efforts to cause late tickets to appear as timely did not occur. Rather, this is simply to acknowledge that if it becomes necessary in this proceeding to assess the conduct of particular personnel, it will be important to review any broad claims about “common knowledge” on an individualized basis regarding each individual’s knowledge. <i>See</i> 90 Day Report, Part V.A.3.</p>
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⁴ SED Report Attachment 3 at SED-00040 n.43.

⁵ *See* Ex. 62.

⁶ SED Report Attachment 3 at SED-00040 n.43.

⁷ SED Report Attachment 57 at SED-02062, line 22 to SED-02063, line 6 (Walker); SED Report Attachment 58 at SED-02331, line 21 to SED-02332, line 5 (White).

6	SED-00014	<p>During most of the period in question, and particularly from 2012 -2017, PG&E struggled to maintain a sufficient staffing level in L&M to complete its work in a timely manner and thereby to meet the 48-hour requirement on a consistent basis. Locators (employees who actually perform the L&M function and who are assigned to geographic “divisions”) therefore felt great pressure to meet the 48-hour requirement, particularly from 2013 to 2016, when the L&M Director made it clear that he would not tolerate any violation of the 48 hour requirement.</p>	<p>While there were times when L&M staff was stretched thin, it is also important to recognize that PG&E dedicated significant additional resources to L&M during this period, that PG&E leadership expressed its willingness to do so, and that L&M management expressly informed PG&E’s senior leaders that the L&M organization had the resources it needed. <i>See</i> 90 Day Report, Part III.A.</p> <p>Additionally, the assertion that PG&E struggled to keep up with demand should be placed in context. Even under the Bates White analysis, which intentionally overcounted late tickets in order to assess the scope of the late ticket data problem, PG&E still completed between 95.5% and 97.8% of its tickets on time.⁸</p> <p>Additionally, see Row 1 above for a discussion of the two working day requirement.</p>
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⁸ Ex. 31 at 5.

7	SED-00014-15	Thus, in the face of rising numbers of tickets and continuing staffing challenges, and in the face of indicators that locators were falsifying records, L&M leadership claimed to have reduced late tickets to implausibly low levels. We therefore find that the discrepancy discussed above arose from a confluence of factors: insufficient staffing, inherent pressure on locators to complete the work; added pressure from the Director to avoid any late tickets; falsification of records designed to avoid criticism for lack of timeliness; and failure to recognize and/or failure to report the inaccuracy of timeliness data created by these factors.	Several other factors contributed to the discrepancies, including a “glitch” in the IrthNet software late ticket counting logic, that caused late tickets to be counted as timely when IrthNet users took certain actions in IrthNet, <i>see</i> 90 Day Report, Part V.A.2, and a feature of the IrthNet software that allowed users to record that they had left voicemails, despite voicemail being contrary to PG&E policy, <i>see</i> 90 Day Report, Parts IV.A.1, IV.C.3.
8	SED-00017	Before 2013, L&M was part of the Maintenance and Construction Department.	As a point of clarification, the reorganization of L&M was initiated in 2013 and was fully implemented in January 2014. <i>See</i> 90 Day Report, Part II.B.4.d.
9	SED-00017	Between 2013 and 2017, L&M was a separate department, and in 2017, it became part of Field Services.	<i>See</i> Row 8 above.

10	SED-00018	In short, as the number of tickets grew to unmanageable amounts, PG&E struggled to keep up with the demand, while at the same time increasing the pressure on locators to meet a goal of “zero late tickets”.	<i>See</i> Row 6 above for a discussion of L&M resources.
11	SED-00018	Specifically, they entered inaccurate and false notes in the database which tracked tickets.	<i>See</i> Row 4 above.
12	SED-00020	See also, the chart for 2012-2016.	The late ticket total submitted to SED for 2013 was 13,547, not 13,546. ⁹
13	SED-00020-21	Soon after PG&E began to use IRTHnet, the company had reason to believe that locators were entering falsified notes in IRTHnet in an effort to “stop the 48-hour clock”.	<i>See</i> Row 1 above for a discussion of the two working day requirement and Row 4 above for a discussion of the distinct types of conduct at issue.
14	SED-00020-21	Soon after PG&E began to use IRTHnet, the company had reason to believe that locators were entering falsified notes in IRTHnet in an effort to “stop the 48-hour clock”.	PG&E does not understand this statement in Guidepost as drawing a <i>legal conclusion</i> regarding knowledge attributable to “the company,” but as making a factual assertion similar to Guidepost’s conclusions that certain information was “common knowledge.” PG&E believes that this statement would benefit from additional precision. <i>See</i> Row 5 above for a discussion of whether certain practices were “common knowledge” among supervisors.

⁹ *See* Ex. 15 at 8.

15	SED-00021	In 2009, The Gas Operations Quality Assurance group (“QA”) 12 conducted an audit of the Damage Prevention department (Audit Number 2009-0115) and reported on its findings on March 10, 2010. QA reported in its Nonconformance Report (“NCR”) that “3.8% of all September 2009 tickets indicated that a new start date/time was negotiated. The majority of these tickets were entered into IRTHnet as ‘negotiated’ primarily as a means to keep the ticket from going overdue. As a result, incorrect data is being used to report on-time results.”	Guidepost accurately quotes the 2010 Quality Assurance Audit’s summary, but the audit summary quoted here does not capture the full context of the 2010 Audit’s findings. The 2010 Quality Assurance Audit does not conclude that there were instances of falsification of records by employees. Rather, the 2010 Quality Assurance Audit posited that the renegotiation of tickets shortly before coming due “ <i>strongly suggest[ed]</i> that the [L&M] employee was running late and use[d] the ‘negotiated new start date/time’ field in IRTHnet to prevent a late response.” ¹⁰ However, the audit’s methodology did not permit it to actually conclude that a ticket properly negotiated shortly before the due time was actually negotiated improperly or that there was any “falsification of ... records by ... employees.” Rather, the audit simply observed the close timing of several tickets and noted that the timing suggested they could have been renegotiated improperly.
16	SED-00022 FN 15	Moreover, there was apparently some confusion about whether the “glitch” had been addressed and/or when.	While Internal Audit concluded that the “glitch” was fixed in December 2012, it was actually not fixed until 2017. <i>See</i> 90 Day Report, Part V.A.2. For additional context on the glitch and the 2012 Internal Audit, see 90 Day Report, Parts II.B.4.f, IV.C.2.

¹⁰ Ex. 5 at 1 (emphasis added).

17	SED-00023	Additionally, the report recommended that the IRTHnet application require more detailed information when a locator negotiates a new start time, including the name and telephone number of the excavator and the method of communication. ... The audit was closed on December 27, 2012.	<i>See</i> Row 16 above.
18	SED-00028	Jesus Soto, in an effort to address staffing and other issues in Damage Prevention, convened a Special Attention Review (“SAR”) on November 19, 2012. The SAR document noted that both dig-in rates and at fault dig-in rates had improved over a 12-month rolling period. The document cited an on-time ticket completion rate of 98.7% for the year 2012. Curiously, several pages later, the document stated “we respond to approximately 60% of tickets on time”.	As a point of clarification, the 2012 SAR began in November 2012. The SAR lasted well into 2013. ¹¹ For additional context on the 2012 SAR, see 90 Day Report, Part II.B.4.a. Further, as noted in the 90 Day Report, Part IV.C.4, the reference to responding to approximately 60% of tickets on time should not be taken literally.
19	SED-00029-30	Finally, on December 14, 2012, Chris McGowan, a L&M “process owner”, wrote to L&M	While this passage accurately quotes an email indicating that late tickets were removed from the STIP metric in December 2012, the statement in that email was incorrect. Late tickets were not part of the STIP metric. As

¹¹ *See, e.g.*, Ex. 51 at 1.

		supervisors, copying Mr. Higgins, that “[l]ate tickets are no longer a success metric. We will still report on it, but it will no longer be related to your STIP metrics....”	discussed in 90 Day Report, Parts IV.A.4.b and V.A.6, PG&E’s STIP scorecards for 2010, 2011, and 2012 clearly demonstrate that late tickets were <i>not</i> a metric.
20	SED-00030	As Jeff Carroll told us, he and Mr. Dickson focused originally on cost, which made hiring additional staff difficult. He attributed the high cost of L&M activities to underperforming locators and poor supervision.	<i>See</i> Row 6 above for a discussion of L&M resources.
21	SED-00030	As mentioned above, in 2013, L&M became a separate function, so that locators no longer performed leak survey, corrosion or other work.	<i>See</i> Row 8 above.
22	SED-00031	[S]upervisors’ performance objectives—as well as Jeff Carroll’s—included an item relating to reduction in late tickets. For example, one supervisor’s performance goals dated August 5, 2015 include the following goal: “Reduce late tickets to ZERO”. Supervisor Adam Mayfield explained that supervisors felt pressure from above and that it “trickled down” to locators, a view that was confirmed by Vanessa	PG&E acknowledges that in 2014, 2015, and 2016, included among the annual goals of some Superintendents and Supervisors was a goal to reduce or eliminate late tickets. It is important to note, however, that these goals regarding late tickets were not the sole basis on which any employee was rated. Rather, these goals were coupled with a number of others that were focused on more direct measures of safety. Any goals related to zero late tickets were therefore part of an overall message that the employee’s performance expectations were to contribute to the reduction of dig-ins and the general safe operation of the L&M program. <i>See</i> 90 Day Report, Parts IV.A.4.a, V.A.6.

		White, who served as a backup to IRTHnet Administrator Steven Walker.	
23	SED-00031 FN 27	This stands in contrast to Jesus Soto's understanding, as expressed to us in our interview, that the Company had no absolute directive that "thou shalt not" have late tickets.	Directives like the "drive to zero" were not the only messages being communicated to PG&E's employees. More appropriate messages that paired the Company's goal of reducing late tickets with the importance of accurate data were common, as discussed in the 90 Day Report, Part IV.B.2. PG&E provided incentives for employees to reduce dig-ins, not falsify late ticket data. <i>See</i> 90 Day Report, Part V.A.6.
24	SED-00035	Dickson and Higgins continued to try to find internal assistance to handle the overwhelming number of tickets.	<i>See</i> Row 6 above for discussions of L&M resources and demand.
25	SED-00037 FN 38	Joel Dickson claimed the L&M was only staffed to 70-75% of workload, and that he "could not get head count approval...to staff to full volume.	Mr. Dickson informed PG&E leadership that he had the proper resources to do the job. <i>See</i> 90 Day Report, Part III.A.
26	SED-00039	Vince Whitmer, of QM, told us that he had conducted an assessment of a sample of supposedly timely tickets every year since 2011, and had found that his samples contained numerous instances of tickets which had not been renegotiated properly because there had not been "positive contact" with the excavator, or because the job had been phased inappropriately.	For additional context on this statement, see 90 Day Report, Part IV.C.5. While personnel within the L&M organization may have been aware of Quality Management's concerns prior to 2016, PG&E senior leadership was not made aware of Quality Management's concerns until May 2016.

27	SED-00039	Additionally, Vince Whitmer of QM continued to report to both Dickson and Carroll that locators were entering improper notes and that therefore late ticket statistics were inaccurate.	<i>See Row 28 above.</i>
28	SED-00040	In fact, as many we interviewed acknowledged, it was common knowledge among supervisors that locators entered false notes in the IRTHnet database to avoid “going late.	<i>See Row 5 above.</i>

APPENDIX E

Directive 9: Witnesses

This Appendix E provides information responsive to Directive 9.

Witnesses in the Guidepost Report

The following chart contains the names and titles of witnesses identified in the Guidepost Report. For those witnesses who were employees as of December 31, 2017, the chart includes their titles as of that date based on PG&E's Year-End Workforce Report for 2017. For those witnesses who left PG&E prior to December 31, 2017, this chart provides their approximate dates of departure and their last job titles prior to their departure from PG&E, based on PG&E's Human Resources' information system.

Name	Name	Name
██████████, Distribution Ops. Analyst, Sr.	Scott Farrell, Superintendent, Gas T&D Maint. and Constr.	William Pierce, Manager, Gas T&D
Maria Arquines, Supervisor, Planning & Scheduling – Bay	██████████ Business Process Analyst, Principal	Steve Rayburn, Director, Labor Relations (August 2015)
Bill Basham, Supervisor, Gas T&D Pipeline Ops. & Maint.	Jason Gambill, Gas Program Manager, Expert	██████████ Senior Gas Compliance Representative
Jennifer Burrows, Manager, Work Management	Lorene Harden, Director, Gas T&D Maint. & Constr. (December 2015)	William Seib, Superintendent, Gas T&D Pipeline Ops. & Maint.
John Camera, Supervisor, GAS GPOM/Lean Coach	John Higgins, Vice President, Safety, Health and Chief Safety Officer	Jesus Soto, Senior Vice President, Gas Ops.
Jeff Carroll, Director, Fleet Ops.	Kevin Knapp, Vice President, Gas Distribution (May 2015)	Nick Stavropoulos, President and Chief Operating Officer
██████████ Senior Gas Compliance Representative	██████████ Lean Specialist, Principal	██████████, Senior Gas Compliance Representative
Dean Churchwell, Supervisor, Distribution	Katherin Mack, Supervisor, Quality Assurance	Steven Walker, Gas Systems Administrator
Mel Christopher, Vice President, Gas T&D Operations	Vinny Matsu, Senior Gas Compliance Representative	Bobbie Weeck, Supervisor, Gas T&D Corrosion
Jeremy Coourval, Senior Manager, Labor Relations (September 2017)	Adam Mayfield, Supervisor, Gas T&D Locate and Mark	Vanessa White, Senior Damage Prevention Awareness Spc., Sr.

██████████, Senior Gas Quality Management Specialist, Sr.	Chris McGowan, Supervisor, Gas Qualification	Vince Whitmer, Supervisor, Gas Quality Management
Mike DeJarnette, Supervisor, Distribution (September 2017)	Frank Narte, Supervisor, Gas T&D Locate and Mark	Ron Yamashita, Supervisor, Gas T&D Locate and Mark
Joel Dickson, Senior Director, Transportation Services	██████████ CONT - Union Business Representative, IBEW	Chase Zearbaugh, Supervisor, Gas T&D Maint. and Constr.

Witnesses for Sections of PG&E's 90-Day Report

PG&E has identified the main witnesses who have significant knowledge of the events and facts described in the specified portions of the 90-Day Report. PG&E submits this information without prejudice to its right to identify additional witnesses for an eventual hearing. The witnesses identified here reflect PG&E's current best judgment regarding the main fact witnesses regarding the general topics of this Report, but PG&E does not understand the OII directive to require an exhaustive list of all individuals with relevant knowledge of every aspect or assertion in the Report.

I. Introduction	[N/A]
A. Summary of the Issues	
B. Overview of the Report	
II. Background	
A. Gas Organization Context Since the San Bruno Explosion	Jesus Soto Mel Christopher
B. L&M's Role in the Damage Prevention Process During the OII Period	Jesus Soto Mel Christopher Jason Klemm, Director, Gas Field Services South Potential Expert Witness(es)
III. Late Tickets: Efforts, Results, and Issues	
A. The Company sought to promote on-time performance through a number of means.	Jesus Soto Mel Christopher Jason Klemm
B. The Company's efforts to improve timely responses to USA tickets appeared to be having significant success.	Jesus Soto Mel Christopher Jason Klemm
C. Efforts to Understand the Problems	Jesus Soto Mel Christopher Jason Klemm
IV. PG&E's Contentions	
A. The issues that SED and PG&E have identified were	Jesus Soto Mel Christopher

inconsistent with Company procedures and policy.	Jason Klemm
B. The issues that SED and PG&E have identified were unintended and unfortunate consequences of pro-safety practices.	Jesus Soto Mel Christopher Jason Klemm
C. The undercounting issues persisted as a result of the Company's mistakes, not its artifice.	Jesus Soto Mel Christopher Jason Klemm
D. The Company has taken responsibility for the issues that SED and PG&E identified.	Jesus Soto Mel Christopher Jason Klemm
E. The Company has implemented, and continues to implement, a comprehensive Compliance Plan to address the issues identified by SED and PG&E.	Mel Christopher Jason Klemm Potential Expert Witness(es)
V. Responses to the OII Directives	See witnesses identified in sections cross-referenced to above.
A. Directives 1-4: Incorrect Factual Statements and Conclusions	
B. Directives 5 and 6: Employee Performance and Pay Metrics	
C. Directive 7: PG&E Explanations for L&M Problems	
D. Directive 8: Corrective Actions	
E. Directive 9: Witness List	[N/A]
VI. Legal Standards and Requirements	[N/A]
A. Provisions Not Implicated in the OII	
B. California Government Code Sections 4216.2(b) and 4216.3(a)(1)	
C. Other Legal Provisions	
VII. Equitable Remedies and Civil Penalties	[N/A]
VIII. Conclusion	[N/A]

EXHIBIT 1

The PG&E Code of Conduct

Living our Mission,
Vision and Culture.



Together, Building
a Better California

February 2018

Welcome to

The PG&E Code of Conduct

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Our Mission, Vision and Culture form the foundation for our standards of ethics and compliance. Our Code of Conduct helps to ensure that all of us understand the expectations and requirements for which we are accountable.

Foreword



A MESSAGE FROM THE CHIEF EXECUTIVE OFFICER AND PRESIDENT

PG&E Team,

Every day, 16 million Californians depend on us to safely and reliably provide affordable, clean energy. And every day, our reputation is on the line. We are all responsible for doing our work with the highest standards and for acting with integrity, transparency and humility. Our Code of Conduct is one of our best tools for getting this right.



With our Mission, Vision and Culture as the foundation, our Code of Conduct helps to ensure that all of us understand the expectations and requirements for which we are accountable and how we go about meeting them. Please take time to read and understand this Code and bring it to life in your own role at PG&E. Living up to the Code helps us earn and safeguard the trust of our customers, regulators, coworkers and community members.

*“Thank you for your commitment
to following our Code of Conduct
and to the success of PG&E.”*

If you ever have questions about our Code, or if you have concerns about safety, possible misconduct or potential violations of laws, regulations or internal requirements, promptly notify your leader or contact resources such as our Compliance & Ethics Helpline or Corrective Action Program. Pacific Gas and Electric Company is currently in a five-year probation program as part of the company’s sentence for violating the National Gas Pipeline Safety Act and for obstructing an agency proceeding. The program includes an independent monitor, and we are fully cooperating with the monitor team.

To live up to our commitments on safety, transparency and continuous improvement, we need a culture where everyone feels comfortable raising safety or misconduct concerns and where we work as one team to solve our challenges. I invite everyone to speak up with confidence as part of our no-retaliation policy. The leadership team is committed to listening up and following up.

Thank you for your commitment to following our Code of Conduct and to the success of PG&E. I look forward to working together to make the future as bright as it can be for our customers and our company.

GEISHA J. WILLIAMS
CEO and President
PG&E Corporation



SAFETY MESSAGE FROM THE PRESIDENT AND CHIEF OPERATING OFFICER

Team,

Being a part of the PG&E team means demonstrating every hour of every day that nothing is more important than safety.



We do everything in our power to watch out for each other, our customers and our contractors. We back each other up in supporting a positive safety culture. A pillar of our Culture is that we succeed through collaboration and partnership. We are one team, and our commitment to safety is one of the most visible ways we demonstrate that.

For us, it's not enough to notice. We have to speak up, we have to listen up, and we have to follow up. Maintaining a culture where everyone feels comfortable sharing their ideas and concerns is essential to operating safely.

Each of you is PG&E's best advocate for a safe workplace. You are closest to the work you do, you know the most about the risks of that work, and you are best equipped to manage those specific risks. Whenever you have a safety issue or concern, speak up immediately. We are committed to listening up and following up.

"Safety is a day-to-day mindset—a personal pledge we make to ourselves, to each other and to our customers. I'm proud to be part of a culture that takes that commitment to heart."

There's a saying that "safety is job one." But I believe safety is more than just a job for us. It's a day-to-day mindset—a personal pledge we make to ourselves, to each other and to our customers. I'm proud to be part of a culture that takes that commitment to heart.

Thank you for putting safety first.

NICK STAVROPOULOS
President and Chief Operating Officer
Pacific Gas and Electric Company



Adhering to our Code of Conduct is critical to carrying out our Mission, achieving our Vision and living our Culture.

The PG&E Code of Conduct

Your guide to compliance and ethics.



Adhering to our Code of Conduct is critical to carrying out our Mission, achieving our Vision and living our Culture. It is the document that guides our overarching commitment to compliance and our ethical Culture.

Our Mission

To safely and reliably deliver affordable and clean energy to our customers and communities every single day, while building the energy network of tomorrow.

Our Vision

With a sustainable energy future as our North Star, we will meet the challenge of climate change while providing affordable energy for all customers.

Our Culture

We put safety first.

We are accountable. We act with integrity, transparency and humility.

We are here to serve our customers.

We embrace change, innovation and continuous improvement.

We value diversity and inclusion. We speak up, listen up and follow up.

We succeed through collaboration and partnership. We are one team.

Our Code demonstrates how we will achieve our Mission, Vision and Culture. Every PG&E employee is responsible for complying with the Code, laws, and regulations, in all actions. The Code of Conduct is divided into sections that address:

- Our ethical commitments
- Speak up, listen up, follow up
- Building trust with various stakeholders: with each other, with our business contacts, with our customers and communities, and with government entities

PG&E does not grant waivers to the Code of Conduct. This PG&E Code of Conduct is an addition to, and not a replacement of, regulatory and legal policies.

In a dynamic and fluid business climate, it's not possible to predict every conceivable situation, so whenever possible check the online version of the Code of Conduct for the most current information.



Section 03

We take personal responsibility for speaking up, listening up and following up.

Our Ethical Commitments

As one team, we behave in a manner that is safe and ethical, and in a way that is consistent with applicable laws and PG&E Culture and policies.



We conduct ourselves in an honest and ethical manner in accordance with our Culture, and comply with all laws, rules and regulations, and our company's policies, standards and procedures.

ADHERING TO THE CODE OF CONDUCT

We are one PG&E. We are all expected to understand the Code of Conduct and complete annual web-based training on the Code on time.

As one team, we behave in a manner that is safe and ethical, and in a way that is consistent with applicable laws and PG&E Culture and policies. We take personal responsibility for:

- Speaking up, listening up and following up
- Raising questions and concerns if we become aware of possible violations of laws, regulations, our Code or PG&E requirements
- Cooperating fully when responding to an investigation or audit

Additional responsibilities for PG&E leaders

When in a leadership position, we take on additional responsibilities for compliance and ethics by:

- Building trust and creating an environment that makes it safe for employees to speak up to share ideas and concerns
- Following through with commitments with the appropriate degree of urgency
- Resolving issues and following up with employees who raise issues
- Seeking guidance if unsure of the appropriate course of action
- Recognizing employees for raising issues
- Openly acknowledging when we are wrong or don't know the answer
- Being an ethical role model
- Making compliance and ethics an essential part of leadership accountability

AS A PG&E EMPLOYEE—

- I will comply with the laws, regulations and PG&E requirements that apply to my job.
- I will ensure that my decisions and actions don't give the appearance of impropriety.
- I will speak up promptly about possible misconduct, safety issues or new ideas.
- I won't retaliate, threaten retaliation or tolerate retaliation by others.

AS A PG&E LEADER—

- I will model compliance with this Code of Conduct and other relevant PG&E policies and standards.
- I won't direct my employees to violate this Code, a law, a regulation or a company policy or procedure.
- I won't engage in retaliation and will address acts of retaliation if brought to my attention.
- I will listen to and follow up with employees who raise concerns.

As a PG&E employee—
I will comply with the laws, regulations and PG&E requirements that apply to my job.



MAKING ETHICAL DECISIONS

When faced with an ethical dilemma, ask yourself:

- Have I made sure that my actions will not impact anyone's safety?
- Is it legal?
- Does it feel right?
- Is it consistent with our Code, our Culture and our policies?
- Am I willing to be held accountable for my actions?

Yes

If you answered “**yes**” to every question, proceed.

No

If you're not sure, or you answered “**no**” to any of the questions, don't proceed.

Ask your leader or another PG&E resource for guidance. For more information, see the section on page 24 for **how you can speak up**.

Employees who don't comply with this Code or other company policies, standards or procedures may face disciplinary action, including employment termination. Leaders should contact their HR representative for help determining the appropriate course of action.

An essential component of our safety program is having a learning culture. If a safety violation occurs, our foremost objective is to learn why it happened and take the necessary steps to see that it does not happen again. Our focus is on what failed, not who

failed. Only if an employee has acted recklessly, has a pattern of carelessness or noncompliance, or intentionally violates safety rules will disciplinary action be considered.

You will not be disciplined or retaliated against for speaking up and raising a safety concern. When you speak up for safety, you are doing the right thing and you will be positively recognized for doing so. Speaking up strengthens our learning culture and helps to reduce both the frequency and severity of safety incidents.

As a PG&E employee—

I won't retaliate, threaten retaliation or tolerate retaliation by others.

As a PG&E leader—

I won't direct my employees to violate this Code, a law, a regulation or a company policy or procedure.



Section 04

PG&E is a safer,
better company when
we speak up, listen up
and follow up.

Speak Up, Listen Up, Follow Up

When we know about a
problem, we can fix it.



SPEAK UP: HOW TO DO IT AND WHY IT MATTERS

At PG&E, we're committed to fostering a workplace where everyone feels safe to ask for guidance, share ideas or raise concerns—and one where everyone is confident that those concerns will be heard and taken seriously. When we fail to speak up, we lose an opportunity to correct problems before they become more serious, and we lose the ability to make improvements. In short, PG&E is a safer, better company when we speak up, listen up and follow up.

If you encounter activities at work that you believe may constitute misconduct, including unethical behavior, or a violation of applicable laws or regulations, speak up immediately to your leader or other PG&E personnel. Leaders have a duty to act when employees raise issues about safety or misconduct. They are expected to listen, take action and follow up.

What is misconduct?

Misconduct is behavior by a PG&E employee that violates this Code of Conduct or PG&E policies, standards or procedures. It may be willful or intentional, but it may also be an unintentional act or failure to act on the part of the employee. Misconduct is serious and may result in discipline, including termination of employment.

Examples of misconduct include but are not limited to:

- Improper use of drugs or alcohol
- Acts or threats of violence
- Fraud
- Falsification of company records
- Retaliation
- Conflicts of interest
- Inappropriate sharing of company data
- Harassment and discrimination
- Questionable accounting, auditing practices or internal controls
- Violations of the law

All of these examples are considered unethical behavior.

You can feel comfortable raising a concern, sharing ideas or requesting guidance without fear of retaliation; however, sometimes speaking up is easier said than done. Please consider the consequences—to yourself, your coworkers and to the company—if you stay silent. The goal of a speak-up culture is to have an environment where we all feel welcome to express concerns, share new ideas or request guidance. **When we know about a problem, we can fix it.**



REQUESTING GUIDANCE AND REPORTING CONCERNS

It's your responsibility to raise concerns about safety, misconduct, or violations of laws, regulations or internal requirements. If you are uncertain about a situation, you have a duty to seek clarification and guidance on interpretations of the Code, safety issues, ethics, compliance and legal issues.

HOW YOU CAN SPEAK UP

You have many ways to speak up to voice a concern. You can contact your immediate leader. If the issue involves your leader or you are uncomfortable with that approach, consider elevating your concern to the next level of management. Know that **you are not required to go to a leader**. Here are some additional options.

Emergency concerns

If there is a life-threatening or emergency situation, contact **911** and seek emergency care immediately.

If there is workplace violence concern, contact **Corporate Security at 1-800-691-0410**. If the concern is urgent, contact **911**.

Employee conduct and guidance

Contact the **Compliance & Ethics (C&E) Helpline 24/7 at 1-888-231-2310** to request guidance or report violations of our Code of Conduct, accounting issues or illegal activity. You may remain anonymous if you wish. The C&E Helpline is an all-purpose resource for raising concerns or seeking guidance. If you are not sure where to turn, the C&E Helpline will determine where to take the issue and provide you with guidance on next steps.

Unsafe work practices and process concerns

Contact the **Corrective Action Program (CAP) at 1-855-85-G0-CAP** to report safety and equipment issues, non-compliance, ineffective or inefficient work processes and procedures, and process improvement ideas. You may remain anonymous if you wish.

Safety incidents and injuries

If you experience work-related discomfort or an injury that affects your ability to work pain-free, you should call the **24/7 Nurse Report Line at 1-888-449-7787** right away and notify your supervisor. **In life-threatening or emergency situations, call 911 and seek emergency care immediately.**

PG&E's Federal Monitor

In addition to the internal speak-up options described above, you may contact PG&E's Federal Monitor directly to share your concerns through a dedicated toll-free phone number, web portal or email. You can contact PG&E's Federal Monitor by:

TOLL FREE PHONE:
855-585-0703

WEB:
www.intouchwebsite.com/PGEMonitor

EMAIL:
PGEMonitor@getintouch.com

Please note, these avenues of contacting the Monitor are not equipped to handle safety emergencies or other issues requiring immediate attention.

In addition, Diablo Canyon Power Plant and Humboldt Bay Power Plant employees and contractors may contact the Employee Concerns Program (ECP) Hotline at 805-545-4994 or **ECPHotline@pge.com** to request guidance or report nuclear safety and nuclear quality concerns.



GOOD FAITH REPORTING AND OUR POLICY AGAINST RETALIATION

At PG&E, we don't tolerate retaliation against anyone who raises good faith concerns or has cooperated in an investigation. Employees may not retaliate, threaten retaliation or tolerate retaliation by others. Leaders have a duty to act to address retaliatory actions that come to their attention. Retaliation is harmful to the employee and can have a chilling effect on other employees in raising concerns.

What is retaliation?

Retaliation is adversely changing an employee's condition of employment without grounds or for a non-business reason. Examples include threatening an employee for raising a concern or moving their physical location without a legitimate business reason. An employee who speaks up will not be put at any disadvantage by PG&E as a result of his or her report.

INVESTIGATING REPORTS OF MISCONDUCT AND UNSAFE WORK PRACTICES

PG&E takes reports of misconduct and unsafe work practices seriously. Your role is to ensure allegations and unsafe work practices are brought forward to leaders. You must cooperate with investigations by promptly responding to information requests. Be sure to provide complete and accurate information. Leaders must take action on issues brought to their attention, including reaching out to other resources such as:

- Compliance & Ethics (C&E) Helpline for misconduct issues and guidance on policies
- Corrective Action Program (CAP) for unsafe work practices, non-compliance and process improvements

OUR INVESTIGATION PROCESS FOR MISCONDUCT AND UNSAFE WORK PRACTICES:

- 1. Intake:** An employee raises a potential misconduct allegation or process issue. All issues are assessed to determine the risk level, and the decision to investigate/evaluate is made.
- 2. Investigate/evaluate:** As part of the investigation/evaluation process, a representative conducts interviews and reviews relevant documents.
- 3. Record and disseminate:** Corrective actions are proposed, and a final report is delivered to the appropriate company representative for resolution.
- 4. Resolve:** The investigation/evaluation is completed, and the findings are reviewed.
 - Misconduct allegations: If the misconduct allegation is substantiated, disciplinary action may be taken.

- Unsafe work practice concerns: Action owners address/fix the issue and corrective actions are implemented.

The case is closed, and the loop is closed with the individual who raised the concern.

- 5. Track and analyze:** The case is evaluated to identify trends.

Read our investigation procedures and discipline policies for more information:

- Employee Conduct Standard (CDT-1004S)
- Internal HR Complaint Investigations Procedure (HR-2030P-01)
- Corporate Security Investigative Procedure (Risk-1101P-01)
- Safety Incident Management Standard (SAFE-1004S)
- Enterprise Causal Evaluation Standard (GOV-6102S)



Section 05

PG&E maintains a safe and secure workplace and working environment. We do not tolerate behavior that is offensive or hostile.

Building Trust with Each Other

Diversity and inclusion are key to PG&E's Culture.



EQUAL EMPLOYMENT OPPORTUNITY

Diversity and inclusion are key to PG&E's Culture, and we strive for a workplace where everyone can bring their unique and varied perspectives and talents. We prohibit discrimination, harassment and retaliation, and we work to ensure our policies, standards and procedures reinforce this Culture.

- **Fair wages**—We are committed to paying fair wages, salaries and benefits.
- **Human rights**—We conduct our business in a manner that respects the human rights of all. We treat our employees with dignity and provide them with safe and humane working conditions.
- **Freely chosen employment**—We do not use or participate in the exploitation of workers or forced or involuntary labor, including human trafficking.

- **Child labor**—We do not employ any person under the minimum legal age for employment as prescribed by the relevant local authority, or under the age for completing compulsory education, whichever is greater.
- **Anti-discrimination**—We give all employees equal opportunities for jobs, skills training and promotions.

AS A PG&E EMPLOYEE—

- I will create a work environment that embraces diversity and inclusion.
- I won't discriminate, harass or retaliate against any applicant, employee, customer, supplier or non-employee worker.

What are the individual characteristics or actions protected from discrimination and harassment?

- Race, color
- Ancestry, national origin
- Sex, gender (which includes but is not limited to pregnancy, childbirth, breastfeeding and medical conditions related to pregnancy, childbirth or breastfeeding)
- Sexual orientation
- Gender identity, gender expression
- Transgender status
- Age
- Religion, religious creed
- Physical or mental disability
- Protected veteran status
- Medical condition
- Marital status
- Genetic information
- Military and veteran status
- Citizenship status
- Utilization of leaves of absence protected under state or federal law

See our **Equal Employer Opportunity (EEO) and Affirmative Action Policy**.

Read our **Mothers' Room Standard (HR-8510S)**.



HARASSMENT-FREE WORKPLACE

Offensive or hostile behavior is not tolerated. Unwelcome sexual advances, requests for sexual favors and other verbal overtures or physical contact of a sexual nature constitute sexual harassment and will not be tolerated. This policy includes any communication, text, image, data, sound or other information that is inappropriate or contains sexually explicit material. Employees who witness or are experiencing harassing behavior have a duty to speak up and report it.

Read our **Standards for a Harassment-Free Workplace Policy**.

PG&E does not tolerate harassment of any kind, including sexual harassment. **If you see something, speak up.**

CONDUCT OUTSIDE OF WORK

Your conduct away from company property and outside of business hours could have a negative effect on workplace safety, on the company's reputation and on our ability to serve customers.

PG&E will assess off-duty conduct that is potentially detrimental to the company on a case-by-case basis and determine appropriate action(s).

HEALTH AND SAFETY

VIOLENCE-FREE WORKPLACE

PG&E maintains a safe and secure workplace and working environment. Employees who engage in acts or threats of physical violence, intimidation, harassment, stalking, sabotage or vandalism may be disciplined or terminated from employment.

Weapons

We do not permit weapons in our workplace or on our job sites. Weapons may not be brought, carried, stored or used on property or in vehicles that are PG&E-owned, leased or rented, or in a personal vehicle while being used for PG&E business, unless there is an authorized and legitimate business reason to do so.

What is permitted on PG&E property or job sites?

- Tools used for legitimate PG&E business purposes
- A personal defense product (including pepper spray or electric shock products that do not fire a projectile; firearms are NOT permitted)
- Small pocket knives with a blade length of three inches or less

AS A PG&E EMPLOYEE—

- I won't bring a weapon onto company property or a job site, a company vehicle or a personal vehicle used for company business unless authorized by Corporate Security.



SECURING OUR PEOPLE, PROPERTY AND ASSETS

PG&E is committed to creating a safe environment and taking care of our assets. All employees must perform their work in a manner that safeguards the public and our customers, employees and company. Doing so is critical for providing safe, reliable, affordable and clean service.

Securing our people

As a member of PG&E's workforce, you are crucial in the fight against acts of sabotage, crime and terrorism. Your daily duties place you in a position to observe and report such instances as unknown people or packages and open doors or gates on our premises. If you see something, speak up. This is how we improve our safety.

Protecting our technology

As an energy company, we share the responsibility for keeping California's energy networks running. Securing our technology is integral to carrying out this responsibility. Helping to secure that technology is the personal responsibility of every PG&E employee. Only authorized computers and equipment may be connected to PG&E networks, and only approved, authorized and properly licensed software may be used on PG&E IT assets, including computers, tablets and smart phones. Employees should never click on links or open email attachments unless the email is expected, and they know and trust the sender.

Limited personal use of certain PG&E assets such as personal computers, telephones and mobile phones, fax machines, copy machines and conference rooms is permitted if the use is incidental to business. However, employees should have no expectation of privacy when using them.

Property and other assets

Employees are responsible for the proper acquisition, use, maintenance, protection and disposal of company assets.

What are company assets?

Tangible assets include materials, computers, phones, tablets, tools, real property, vehicles, physical structures, meters and service equipment. Intangible assets include data, information and records concerning PG&E employees, suppliers or customers, and intellectual property and non-public information about PG&E.

AS A PG&E EMPLOYEE—

- I will be diligent in protecting the company's technology system.
- I will physically secure mobile devices.
- I will observe all information security controls and never try to circumvent them.
- I will immediately report any suspected or actual breach of PG&E's computer systems and networks to the Technology Solution Center (TSC) at **415-973-9000**.
- I will speak up about security concerns, including unknown people or packages and open doors or gates.
- I won't let others tailgate into PG&E facilities and will follow proper badge protocol.

As a PG&E employee—
I will be diligent in protecting the company's technology system.

**AS A PG&E EMPLOYEE—**

- I won't take, misuse or divert any PG&E assets for any reason.
- I will respect limits on personal use of company assets.

FITNESS FOR DUTY

Employees are expected to be mentally and physically fit for duty, and to remain fit while on duty. If your fitness for duty is called into question, you may be subject to a mandatory fitness for duty assessment and/or U.S. Department of Transportation (DOT) or non-DOT Reasonable Suspicion testing.

Alcohol-free and drug-free workplace

Being under the influence of alcohol or drugs, including recreational and medical marijuana, while working or while on company property is prohibited. Employees may not transport alcohol or drugs in a company-owned, rented or leased vehicle, or a personal vehicle while on company business. In rare circumstances, employees may seek prior consent from a director or above to transport alcohol in a company-owned, rented or leased vehicle.

Authorized use of alcohol

Alcohol is not permitted at company events unless a senior officer provides prior written approval for consuming alcohol for special occasions or certain business meetings. This must be limited and must not violate regulations. Do not operate a company vehicle after consuming alcohol.

If you attend a conference on behalf of PG&E and alcohol is served in the evening at a reception or meal, you may consume alcohol in moderation. However, be mindful that your actions impact PG&E's reputation, and you may not

conduct official business while under the influence of alcohol.

Read PG&E's Employee Business Expenses and Travel Standard. (FIN-2210S)

AS A PG&E EMPLOYEE—

- I won't report to work after consuming alcohol, illegal drugs or marijuana (including recreational or medical marijuana).
- I will not transport alcohol or drugs in a company-owned, rented or leased vehicle, or a personal vehicle while on company business.
- I will tell my leader if I am taking any medication that could affect my ability to work safely and efficiently.
- I won't report to work under the influence of prescription or over-the-counter medications that could impair my ability to work safely and efficiently.
- I won't consume, possess, display, transport or sell recreational or medical marijuana or illegal drugs while on duty, on PG&E property or in a PG&E vehicle.
- I will comply with PG&E's alcohol and drug standards and all fitness-for-duty regulations.



ACCURATE REPORTING AND RECORDS

Accurate records are an essential part of PG&E's operations. To keep our system safe and reliable, we must always complete and document our work.

Each employee creates records and information and is responsible for managing PG&E records and information to ensure that it is safe, reliable, retrievable, compliant and available during its life cycle.

Company records must be managed and stored in accordance with specific company policies, standards

and procedures, which include disposition once retention has been met. Disposition of records is suspended when the Law Department issues a legal hold.

In most situations, visual or audio recordings are not permitted in meetings. If you've received prior approval from a senior director or higher to record a business meeting, work with your records management lead to ensure we retain the appropriate records.

Read our **Enterprise Records and Information Management Standard. (GOV-71015)**

What is a record?

Any information created, received and maintained during the course of business to document:

- Specific operational actions
- Commercial transactions
- Contractual obligations
- Formal business decisions
- Legal commitments
- Compliance with legal requirements

Examples of company records

- Maintenance records and inspection documents
- As-built drawings
- Personnel documents
- Reports to government agencies or other public communications
- Workers' compensation or other benefit-related information, such as dependent eligibility
- Financial reports

As a PG&E employee—
I will follow proper record
management practices.



What is fraud?

Fraud is intentionally misrepresenting or concealing facts. Fraud can also occur when a person makes intentionally misleading allegations. Examples of fraud may include falsifying documents, misuse of company credit cards, intentionally overcharging customers or changing a family member's account in our billing system.

Fraud prevention

PG&E is committed to maintaining accurate books, records and financial and non-financial reports. Fraud will not be tolerated.

Business expenses

Misrepresentation of business expenses is also fraud. Use PG&E funds for PG&E business expenses only, whether paying by credit card, cash or another method. No personal use is allowed on PG&E credit cards.

Business expenses must be:

- Reasonable
- Prudent
- Actual
- Necessary
- Incurred while on PG&E business

AS A PG&E EMPLOYEE:

- I will follow proper record management practices.
- I won't use company funds to make unauthorized or personal purchases.
- I won't incur unreasonable expenses on behalf of the company.

Read our **Employee Business Expenses and Travel Standard. (FIN-2210S)**

CONFLICTS OF INTEREST

You must not use company property, corporate assets, company information or the influence of your position in a manner that places your personal interests and/or the interests of a competitor before the interests of the company.

What is a conflict of interest?

A conflict of interest occurs when an employee's private interests interfere, or even appear to interfere, with the interests of PG&E.

AS A PG&E EMPLOYEE:

- I will disclose any potential conflict of interest to my leader.
- If I find myself facing a situation that might be perceived as a conflict of interest, I won't proceed without a written agreement from my leader or appropriate decision maker.

Influencing business decisions for personal gain

A potential or actual conflict of interest exists if you influence or try to influence a decision or transaction that could materially affect the value of a financial interest that you hold or that is held by a member of your family or another person with whom you have a close relationship.

Review **PG&E's Conflict of Interest Standard. (CDT-1005S)**



Favored treatment

We don't tolerate favored treatment, which is using your position to obtain preferential or advantageous treatment for yourself or your close personal relationships. This includes hiring or promoting employees, selecting contractors or vendors, or participating in investment opportunities to which you're made privy as an employee of PG&E.

Refer to the **PG&E Corporation Nepotism Policy. (HR-01)**

AS A PG&E EMPLOYEE:

- I will treat all fellow employees fairly.
- If I'm in a leadership position, I'll make personnel decisions based on merit and performance.
- I will disclose close personal relationships to my leader to combat the appearance of favoritism or a conflict of interest.

As a PG&E employee—
If I'm in a leadership position,
I'll make personnel decisions
based on merit and performance.

Gifts and entertainment

If you give or receive a gift in a business setting, it can create a sense or appearance of obligation. PG&E employees, immediate family members, contractors, consultants, those seeking to do business with PG&E and our suppliers are subject to the same rules regarding gifts and entertainment.

What is a gift?

A gift can be anything of value, including items such as:

- A ticket to a sporting event or performance
- A free service (car detail, free parking, etc.)
- A round of golf or bottle of wine

Conditions for giving and receiving gifts

To avoid real or perceived obligations, the giving and receiving of gifts by all employees must meet all six conditions below:

1. **The total value of all items given or received over a 12-month period must not exceed \$100 from a single entity.**
2. The item is customary and does not create any appearance of impropriety.
3. The item imposes no sense of obligation on the receiver.
4. The item results in no special or favored treatment.
5. The item could not be considered extravagant, excessive or too frequently given.
6. The item is not concealed in any way.

If you return a gift to the giver within 30 days, or reimburse the giver from personal funds, it is not considered a gift. Customary business meals are not considered gifts.



If an employee is a guest speaker at a conference hosted by a vendor or other third party, the conference host may pay the employee's conference registration fee only. PG&E is responsible for paying for the employee's airfare, lodging, entertainment and other expenses associated with attending the conference. Entertainment could include a round of golf or tickets to sporting events or performances.

If circumstances make it appropriate to accept or give a gift that exceeds the \$100 limit, the employee must obtain approval from an officer. The approving officer should send a completed gift exception form to the **Compliance and Ethics Helpline mailbox** at **ComplianceEthicsHelp@pge.com** for monitoring and tracking.

Refer to the **PG&E Conflict of Interest Standard** for the full conditions of giving and receiving gifts and the gift exception form. (CDT-1005S)

Outside employment

You're not permitted to engage in outside employment or activities such as joining the board of directors of companies that compete with products or services offered by PG&E. Additionally, employees are not permitted to take outside employment that has or could have a negative effect on their ability to do their job at PG&E. If you are, or plan to be, engaged in outside employment or activities, notify your leader and contact Compliance and Ethics for more guidance.

AS A PG&E EMPLOYEE:

- I will ask my leader or Compliance and Ethics if I have questions about gifts.
- I won't accept or give gifts that are not in compliance with all six of the above conditions.
- I will check with my leader if I plan to pursue outside employment opportunities.

Loans, wage advances or guarantees of obligations

PG&E prohibits loans, wage advances or guarantees of corporate funds to its employees or their friends and family members.

Employees or members of their families must never accept a loan, guarantee, service or payment from a contractor, vendor, consultant or others doing business with PG&E under terms that are not available to the public.

Insider trading

Insider trading is illegal. Never disclose or "tip" inside information to others, or buy and sell securities based on material information you receive as an employee of PG&E.

Refer to the **PG&E's Insider Trading Policy** for more information. (CDT-1002S)

What is material information?

Information is "material" if a reasonable investor would consider it important in making an investment decision. Examples include: earnings projections, significant developments in major rate cases or other proceedings, matters before the California Public Utilities Commission, major litigation, changes in dividend policy or senior management, major events regarding PG&E's securities, mergers and acquisitions, or disposition of significant assets.

What is insider trading?

Insider trading is buying and/or selling stock or other securities—including PG&E Corporation Retirement Savings Plan (the 401(k) plan) or Dividend Reinvestment and Stock Purchase Plan (DRSPP) transactions—while in possession of material non-public information.



Section 06

As our suppliers are an extension of PG&E, we expect them to adhere to our Culture and put safety first.

Building Trust with Our Business Contacts

We do business honestly, fairly and lawfully.



DOING BUSINESS FAIRLY

We do business honestly, fairly and lawfully. We respect our competitors and do not make inaccurate or derogatory statements about their products or services.

INTELLECTUAL PROPERTY AND CONFIDENTIAL INFORMATION

Intellectual property and other confidential information should remain within the company and not be shared with outsiders. Examples of protected information are competitive strategy, costs and financing methods, trade secrets, pricing policy, contract terms, market surveys, and capacity plans and capabilities. If you are authorized by a director or officer to share confidential information outside the company, you must obtain a signed non-disclosure agreement from the third party to whom you disclose the information.

Works created by an employee within the scope of his or her employment are considered the intellectual property of PG&E. Tell your management about inventions and developments that you create within the scope of your employment or with the use of PG&E resources.

AS A PG&E EMPLOYEE—

- I won't view confidential information for a non-business reason.
- I won't use confidential information for personal gain.
- I won't share confidential information without the appropriate approval.

Copyright laws make it illegal to copy or reproduce materials without permission of the owner. Examples of copyright-protected materials are books, newspapers, movies, computer software, drawings and musical recordings.

Patents are exclusive rights granted by a government to an inventor to manufacture, use or sell an invention for a certain number of years.

Trademarks are words, symbols, slogans and phrases that distinguish goods and services from others and are used to build brand identity.

Trade secrets include any information used by a business, such as formulas, devices or customer lists that have economic value but are not generally known and for which reasonable efforts have been made to preserve secrecy.

AS A PG&E EMPLOYEE—

- I will keep PG&E's intellectual property and trade secrets confidential and will not disclose them to any outside party without prior approval from my director or officer.
- I won't make unauthorized copies of software licensed to PG&E, load unlicensed software onto PG&E computer equipment or download unauthorized software from the internet.



BRIBERY AND CORRUPTION

PG&E does not tolerate any form of bribery, corruption, extortion or embezzlement and we expect our suppliers to adhere to this same standard. We do not offer or accept bribes, kickbacks, facilitation payments or similar inducements.

Antitrust and other laws, sanctions and controls

PG&E complies fully with all the following:

Antitrust laws were established to promote economic competition among businesses. Activities that limit competition, restrict trade or otherwise dominate a market may violate antitrust laws. Such violations can expose PG&E and individual employees to criminal penalties, fines and civil lawsuits.

Anti-boycott laws make it illegal to participate in any boycott between foreign countries if not sanctioned by U.S. law.

Treasury embargo sanctions

prohibit U.S. companies and their foreign subsidiaries from doing business with certain countries, agencies and individuals.

Export and import controls

restrict or prohibit the export and import of sensitive goods, technology or software to certain countries or individuals.

Foreign Corrupt Practices Act (FCPA)

prohibits giving or offering anything of value to a foreign official, inside or outside the United States, to induce the recipient to misuse his or her official position to obtain or retain business or secure some improper advantage. When you are traveling and working with foreign officials, be careful not to violate FCPA.

Contact the Compliance and Ethics Helpline mailbox at ComplianceEthicsHelp@pgge.com with any questions, particularly concerning gifts and meals.

AS A PG&E EMPLOYEE—

- I won't accept or make any offers from/to a supplier that could be viewed as a bribe or unethical payment in expectation of favored treatment.
- I will promptly report any such instance of attempted bribery, corruption or extortion to my leader or the Compliance and Ethics Helpline.

What is a kickback?

A kickback is a "thank you" for favorable treatment under a contract. Examples of kickbacks can include:

- A customer gives an employee a gift card to expedite their service connection
- A vendor thanks an employee for a bid selection by offering them a trip

What is a facilitation payment?

A payment made to a government official to facilitate approval of a business transaction or activity.

What is a bribe?

Money or a favor given or promised to influence the judgment or conduct of another person.



WHO WE WORK WITH AND WHY

Suppliers are vital to PG&E's success. Because suppliers are a visible extension of PG&E in our communities, we choose them carefully based on fair and objective criteria. We expect all our non-employee workers, consultants, vendors and other suppliers to behave ethically and comply with applicable laws, regulations and policies, and our Supplier Code of Conduct.

SUPPLIER CODE OF CONDUCT

As our suppliers are an extension of PG&E, we expect them to adhere to our Culture and put safety first.

The PG&E Supplier Code of Conduct includes the standards of conduct that suppliers, as well as their employees, subcontractors and sub-suppliers, must follow as they provide goods and services to PG&E. Failure to comply with the expectations covered in the Supplier Code of Conduct could result in termination of an assignment and/or contract.

If you are aware of supplier misconduct or unsafe practices, please speak up by contacting your leader or the Compliance and Ethics Helpline at 1-888-231-2310.

Read our [Supplier Code of Conduct](#).

AS A PG&E EMPLOYEE—

- I will report suspected supplier misconduct.
- If I am in a leader or managerial role, I will ensure that any suppliers I work with understand and comply with the Supplier Code of Conduct.

What does the Supplier Code of Conduct cover?

Topics include:

- Health and safety
- Environmental leadership
- Supplier diversity
- Labor issues and human rights
- Ethical business conduct
- Conflicts of interest
- Engagement with external parties
- General administrative topics

As a PG&E employee—
I will report suspected
supplier misconduct



Section 07

PG&E serves our communities by protecting and preserving our environment, protecting sensitive information and communicating honestly and openly about our business.

Building Trust with Our Communities and Customers

At the center of our Vision is our commitment to a sustainable energy future.



At the center of our Vision is our commitment to a sustainable energy future. This encompasses not only our commitment to clean energy and environmental leadership, but also our fundamental commitment to safety and affordability. Our Vision also affirms our commitment to meeting the challenge of climate change—a key driver for California’s energy policy and a critical priority for our customers.

PG&E serves our communities by protecting and preserving our environment, protecting sensitive information and communicating honestly and openly about our business. We strive to represent ourselves consistently and with integrity. We work in partnership with our communities to improve the quality of life everywhere we serve.

As a PG&E employee—
I will carry out my duties
in an environmentally
responsible manner.

PRESERVING OUR ENVIRONMENT

PG&E is committed to environmental leadership and to conducting business in an environmentally sensitive manner. The cornerstone of our environmental policy is strict compliance with all applicable environmental laws and regulations.

We also seek opportunities to exceed current standards of environmental protection, including in the areas of pollution prevention, climate protection, and habitat and species protection. Our annual **Corporate Responsibility and Sustainability Report** is one way

AS A PG&E EMPLOYEE—

- I will understand the impact of my job on the environment.
- I will carry out my duties in an environmentally responsible manner.

we measure and communicate our progress; we hold ourselves accountable and report on our performance with transparency.

Read our **Environmental Policy**.
(ENV-01)



PERSONAL AND SENSITIVE INFORMATION

As part of your job duties, you may have access to personal or sensitive information in digital, hard copy or verbal form. This includes personally identifiable information of PG&E customers, employees or suppliers, such as names, addresses, phone numbers, Social Security numbers or customer energy usage data. You must maintain the confidentiality and privacy of this information, and you may only disclose it with proper authorization or when legally mandated.

What is personally identifiable information (PII)?

Personally identifiable information is any data that could potentially identify a specific individual.

What is protected health information?

Protected health information includes data such as medical conditions or health care coverage.

What is customer and/or employee information?

Customer and/or employee information is any information that, when used alone or combined with other personal or identifying information, can distinguish or reveal the identity of a PG&E employee, or an individual, family or household who is a PG&E customer.

Customer information includes:

- Customer name
- Address

- Phone number
- Social Security number
- Customer energy usage data

In addition to the items above, employee information includes:

- Benefits details
- Images
- Photographs
- Performance evaluations

What is supplier information?

Supplier information includes pricing and contract information.

As a PG&E employee—
I will respect every customer's right to privacy and handle customer information with care and diligence.



Customer information

Do not disclose customer information to a third party without the customer's written authorization unless:

- You are legally required to do so
- The information must be disclosed for PG&E to provide services and ensure appropriate information security protocols are in place

Employee information

Never disclose employee information to another employee, shareholder or a third party without appropriate approval. Forward requests for employee information and references to your Human Resources business partner.

Supplier information

Never disclose supplier information to a third party without appropriate approval and a legitimate business reason. You also must comply with any non-disclosure agreement or confidentiality provisions of a supplier/vendor agreement.

If you have access to personal and sensitive information, you must follow all PG&E standards to ensure that it is appropriately protected and secured. This obligation continues even after you are no longer employed by PG&E.

If you have any questions about using or handling personal and sensitive information, please contact the Law Department.

Read our privacy policies and standards:

- [Privacy Policy](#)
- [Information Classification and Protection Standard \(IT-5302S\)](#)
- [Customer Privacy Standard \(GOV-8001S\)](#)

AS A PG&E EMPLOYEE—

- I will respect every customer's right to privacy and handle customer information with care and diligence.
- I will never view, change, update, manipulate or disseminate my own account or the account of a family member, friend or coworker from our internal system.
- I will show respect to fellow employees by treating their information with the same care and diligence I would expect in the handling of my own information.
- I won't access or view sensitive, confidential or personally identifiable information for a non-business reason or for personal gain.
- I won't share sensitive information without appropriate approval.

As a PG&E employee—
I won't share sensitive information without appropriate approval.



COMMUNICATING WITH CUSTOMERS AND THE PUBLIC

Our communication with customers and the public should be clear, accurate, open and consistent, and should always demonstrate utmost concern for the public's benefit and safety.

How to respond to inquiries from the media, including during emergencies

If you are contacted by the news media, immediately refer the contact to **PG&E Marketing and Communications** at **415-973-5930**. Do not attempt to improvise an answer, speculate, or downplay the seriousness of the situation. A Marketing and Communications representative is available 24 hours a day, seven days a week

to respond to the news media. Marketing and Communications also handles requests for PG&E subject matter experts.

Social media

PG&E respects your right to participate in social media and understands that your time outside of work is your own. Social media used appropriately and effectively can help PG&E build and strengthen relationships with our customers, employees and community members.

PG&E applies these requirements in a manner that does not interfere with or limit employees' rights under the National Labor Relations Act. Legally protected social media discussions include discussions about wages, hours and working conditions; the right to self-organize, form, join or assist labor organizations; the right to bargain collectively through representatives of your choosing regarding your wages, hours and working conditions; the right to engage in other concerted activities about the same topics or other mutual aid or protection; or to refrain from engaging in such activities.

How does PG&E define social media?

Social media includes:

- All types of posts and other communications on the internet
- Posts on social networking sites, such as Facebook, Twitter and LinkedIn
- Video or audio posted to media-sharing sites, such as YouTube or Instagram

Read the Employee Social Media Standard. (CDT-1003S)



AS A PG&E EMPLOYEE—

- I will use social media responsibly to balance the benefits and risks to PG&E and to me personally.
- I will use my personal email account (not my PG&E email) and my personal device(s) when setting up or participating in external social media channels.
- I will adhere to copyright and fair use laws.
- I won't represent in any social media content that I am authorized to speak on behalf of PG&E without prior written approval from Marketing and Communications.

Review our brand guidelines at www.pgebrandguidelines.com (Login: pgebrand, Password: onepge); contact brandguidelines@pge.com with questions.

Read the **Charitable Contributions Standard. (CR-5002S)**

CORPORATE PRESENTATIONS, IDENTITY AND LOGO USE

PG&E is committed to fair and truthful advertising practices. PG&E Corporation owns the trademarks that incorporate "PG&E" and the holding company and utility corporate names. You may use the corporate names and logos, the PG&E logo and PG&E colors in presentations to public audiences in compliance with the standards issued by Marketing and Communications. When creating presentations or other materials, do not use copyright-protected images; some stock and company imagery is available for your use on the brand guidelines website.

Endorsements

PG&E does not endorse products or services, or the firms or individuals who supply them. Favoritism must not be implied by testimonials or endorsements. If you want to provide a personal testimonial or endorse an event, product or service, do not use your job title or affiliation. If you have questions about endorsements, please contact the Compliance and Ethics Helpline. Any exceptions must be approved by Marketing and Communications.

Contractor representation

Under no circumstances are contractors permitted to represent themselves to the media as speaking on behalf of PG&E, unless they are expressly authorized to do so by Marketing and Communications.

Publishing material to external sources

If you plan to publish material about your job responsibilities or work, get approval from your leader and Marketing and Communications before publication.

Donations

Community Relations must review in advance all cash and in-kind contributions made in PG&E's name to 501(c) nonprofit organizations, public schools and governmental entities. We serve our community through employee volunteerism and partnering locally to enrich educational opportunities, preserve our environment and support the safety and vitality of our communities.



Section 08

PG&E is committed to complying with all federal, state and local laws, rules and regulations.

Building Trust with Governments

Employees must comply with all requirements related to government business.



PG&E is committed to complying with all federal, state and local laws, rules and regulations. We expect employees to meet all legal and regulatory requirements imposed by all governmental bodies that regulate our business.

We are also fully committed to abiding by all laws governing interactions between the company and various governmental bodies. We respond appropriately to all government inquiries and investigations.

PARTICIPATING IN THE POLITICAL PROCESS

PG&E encourages employees to be informed voters and become involved in the political process. As an employee you must make it clear that any contributions you make, views you may express or activities you undertake are

your own and not those of PG&E. If you choose to contribute or participate, your contributions must be on a personal basis, using your own time and funds. Participation in company-approved political action committees is voluntary.

PG&E will not reimburse you for any contribution of money donated or time spent by you on that activity.

Serving in federal, state or local government

If you seek election or appointment to a public office while employed by PG&E, contact the California External Affairs Political Resources & Compliance team to discuss potential conflicts of interest and how those issues should be addressed.

INTERACTING WITH PUBLIC OFFICIALS

The California Public Utilities Commission, Federal Energy Regulatory Commission and other state and federal agencies have rules that restrict and require disclosure of certain communications with decision makers about issues in proceedings before those agencies. All communications with regulatory personnel must also be truthful and accurate. Ex parte communications, in particular, are strictly regulated.

When engaging in communications with regulatory agencies, PG&E employees and agents are expected to seek guidance from the Law Department or Regulatory Affairs and follow PG&E policies and standards.

Read our ex parte policies, standards and procedures:

- **Ex Parte CPUC Communications Procedure (CR-2001P-06)**
- **Ex Parte CPUC Communications Regarding 2015 Gas Transmission and Storage (GT&S) Rate Case Procedure (CR-2001P-07)**
- **FERC Ex Parte Communication Prohibition Standard (Risk-4004S)**

What denotes a public official?

A public official is any government employee or representative, including elected or appointed officials in foreign, federal, state and local governments, regulatory commissions and other oversight agencies.

What is an ex parte communication?

An ex parte communication is a communication between a decision maker and an interested person concerning an issue in a formal proceeding that does not occur on the record. Ex parte communications can occur when information is not shared in a public forum or is kept out of the record of the proceeding.



DOING BUSINESS WITH THE GOVERNMENT

We are proud to provide services to the United States federal government and state and local government entities. As a federal contractor, we must comply with a number of laws, regulations and contractual requirements that are unique. Many of these requirements are different from and more restrictive than requirements in the commercial marketplace.

An example of these restrictive requirements is when certain government officials visit, we may not be able to provide them with common business courtesies, like a bottle of water or a meal.

Employees must comply with all requirements related to government business:

- We always act with integrity and communicate honestly.
- Fraudulent or dishonest acts in fulfilling a government contract can trigger severe penalties under the False Claims Act, including fines and jail sentences.
- This includes making false statements or representations, submitting false claims or charging for hours not worked.

As a federal contractor, Pacific Gas and Electric Company has certain obligations that we must meet. Many of our existing policies meet U.S. government standards, including a zero-tolerance policy on human trafficking, procuring commercial sex acts and using forced labor.

Any employee who violates this policy shall be subject to disciplinary action including, but not limited to, reduction in benefits or termination of employment. These policies apply to consultants, contractors and subcontractors working with or for Pacific Gas and Electric Company. As these are also government policies, the government may remove us from a contract if we violate these provisions. Government contracts may also have other special provisions and reporting requirements.

Be aware of those special provisions and immediately contact the Compliance and Ethics Department if any questions arise.

For more information, refer to our **Federal Government Contracts Compliance Standard. (GOV-1028S)**

Political contributions and gifting

The rules surrounding providing gifts and meals to federal government officers, officials and employees are stricter than PG&E's gift policy. Contact the California External Affairs Political Resources & Compliance team to receive advance approval for all contributions (monetary and in-kind) or gifts (including food and drink) made to government officers, officials or employees on behalf of PG&E.

Lobbying

Direct lobbying or similar political activity on behalf of the company may be done only by employees who are properly registered and who are specifically approved by California External Affairs and/or Federal Affairs. Contact the Political Resources & Compliance team with any questions.

AS A PG&E EMPLOYEE—

- I will understand the laws and regulations applicable to my job, including specific rules related to government contracting or interacting with governmental bodies.

Disclosures and public communications

PG&E Corporation and Pacific Gas and Electric Company must comply with federal laws and regulations that require the disclosure of certain information related to Securities and Exchange Commission (SEC) filings. If you are asked to review a draft SEC report, respond promptly to help ensure that the SEC reports, other public disclosures, and the information contained within, are full, fair, timely, accurate, understandable and complete.

As a federal contractor, we must comply with a number of laws, regulations and contractual requirements that are unique.

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The most up-to-date version of this
Code of Conduct can be found online at
pgeweb/compliance/pages/codeofconduct.aspx

In the Code of Conduct, the term “PG&E” refers to
PG&E Corporation and its affiliates and subsidiaries,
including Pacific Gas and Electric Company. The
conduct, conflict of interest and compliance standards
in this code apply to all employees and officers of PG&E.



Together, Building
a Better California

EXHIBIT 2

Guidelines for States Participating in the Pipeline Safety Program



**Pipeline and
Hazardous Materials
Safety Administration**

Guidelines for States Participating in the Pipeline Safety Program

Appendix K

State Pipeline Program Performance Metrics

Introduction

On September 26, 2011 the National Transportation Safety Board (NTSB) issued a series of safety recommendations resulting from the September 9, 2010 natural gas incident at San Bruno, California involving the facilities of Pacific Gas & Electric. The Pipeline and Hazardous Materials Safety Administration (PHMSA) was issued several recommendations as part of this communication. As a result of **Safety Recommendation P-11-20** a task group was formed in cooperation with PHMSA and the National Association of Pipeline Safety Representatives (NAPSR) to address NTSB concerns.

The NTSB recommendation P-11-20 asked PHMSA to: *Work with state public utility commissions to (1) implement oversight programs that employ meaningful metrics to assess the effectiveness of their oversight programs and make those metrics available in a centralized database, and (2) identify and then correct deficiencies in those programs.*

The task group formed consisted of Subject Matter Experts (SME) from NAPSR and PHMSA which met in February, April and September of 2013. The team looked at various possible performance measures that could assess the various state oversight programs and came up with the attached six performance metrics through group consensus. While developing the performance measures the following primary elements were considered:

- Is the performance metric measurable?
- Is the performance metric data driven?
- Is the metric essential to helping meet the goal of zero incidents and zero unintentional releases?
- Is the metric meaningful and an essential component to an effective safety program?

Once the six consensus metrics were identified, each metric was outlined and the following elements were developed:

- Description of Metric
- Why the metric is important
- Data Sources – where data will come from
- Other Unique Considerations
- Potential Accelerated Actions – Actions a state can take to improve performance
- Report output information – how data will be compiled for analysis

The results have been made available on the PHMSA Pipeline Safety Stakeholder Communication website at the following link:

<http://primis.phmsa.dot.gov/comm/states.htm>

Performance Metric One: Damage Prevention Program	
Description of Metric	This metric shows pipeline damages per 1000 locate tickets. This measure has been established as an industry benchmark on performance of damage prevention programs
Why this Metric is important	<p>Excavation damage is the leading cause of natural gas distribution pipeline incidents, and a leading cause of other pipeline incidents, nationwide. A critical step in preventing excavation damage is for the excavator to notify pipeline operators of intent to excavate at a specific location. This is normally done by the excavator calling a one-call center. The one-call center then issues a locate ticket to inform pipeline operators and other underground utility operators with facilities located near the planned excavation activity. The pipeline operators can then locate and mark the location of their pipelines and otherwise communicate with the excavator as necessary to prevent damage to the pipelines.</p> <p>The number of excavation damage occurrences per 1,000 locate tickets is an established benchmark within the damage prevention industry and an important indicator of damage prevention program performance. However, note that variations among state laws regarding locate ticket size and scope, along with the length of time a locate ticket is valid, will limit any state to state comparison of this metric.</p>
Data Sources	The data for this metric will be taken from a summary of each states distribution operator annual reports. (Form PHMSA F 7100.1-1 Part D)
Unique Considerations	This metric does not include data from transmission operators or liquid operators due to availability of data.
Potential Accelerated Actions (AA's)	<ul style="list-style-type: none"> • State damage prevention program (laws) enhancement • Public Awareness program enhancement (i.e. seminars, websites) • Stakeholder communications (i.e. coordinating councils etc.) • One-call center interaction • Active one-call law enforcement (i.e. training, fines etc.) • Active enforcement of 192.614/195.442 • Identification of damage reason by operator – (i.e. hand digging, no locate, etc.) • Drill down by operating area of each operator
Report output information	Average per 1000 shown by bar graph on a trend by year by state

Performance Metric Two: Inspection Activity	
Description of Metric	This metric shows level of inspection effort by each state program. This data will show inspection days per combined miles of distribution, gathering and transmission lines.
Why this Metric is important	Regulator inspection time with each pipeline operator is vital in identifying compliance issues and gaining knowledge about the condition of the operator's systems. Measurement of the level of inspection activity by the state program is based on the number of inspection days per combined miles of distribution (including mains and service lines), gathering and transmission lines. Measurement of the level of inspection activity spent on master meter and small liquid propane gas (LPG) system operators is shown separately, where applicable, as those operators are handled individually by each state due to various unique considerations.
Data Sources	State program progress report and mileage from annual reports (pipeline data mart)
Unique Considerations	This primary metric will not include inspection time spent on master meter/small LPG inspections due to lack of mileage data available. Master Meter/Small LPG operators are handled by each state on an individual basis due to unique considerations.
Potential Accelerated Actions (AA's)	<ul style="list-style-type: none"> • Hire and train additional staff • Utilize current staff more efficiently if needed • Inspect operators/inspection units more frequently based on individual risk factors (i.e. age of system, population density, operator history, etc.)
Report output information	<p>Inspection person-days/mileage by bar graph on a trend by year by state</p> <p>Inspection person-days/master meter-small LPG unit by bar graph on a trend by year by state</p>

Performance Metric Three: Inspector Qualification	
Description of Metric	This metric shows level of training and experience of each state program's inspection staff.
Why this Metric is important	PHMSA rates each state's inspector qualification program based on the levels of training and experience of the program's inspection staff. The level of training and experience of inspectors directly impacts the quality of pipeline inspections performed. For the ratings, PHMSA looks at three separate attributes, including the percentages of the state's inspection staff that have: 1) successfully completed the core pipeline safety training program; 2) successfully completed additional training addressing topics such as Integrity Management, Welding, and Failure Investigations; and, 3) five or more years of inspection experience. "Additional Training" primarily consists of detailed PHMSA-provided training relating to conducting integrity inspections and understanding the methods and processes used in integrity management programs.
Data Sources	Annual state program progress reports and PHMSA TQ training transcripts
Unique Considerations	This metric also considers retention of inspectors
Potential Accelerated Actions (AA's)	<ul style="list-style-type: none"> • Obtain additional outside training • Accelerate TQ training • Provide competitive compensation/benefits for retention • Agency support of travel to training • Succession planning • Refresher training • Develop in-house training
Report output information	<p>This will be a bar chart showing the following information –</p> <ul style="list-style-type: none"> • Percentage of inspection staff that have completed core training. • Percentage of inspection staff that have received all additional training (Integrity Management, etc.) • Percentage of inspection staff that have at least 5-years' experience.

Performance Metric Four: Leak Management	
Description of Metric	This metric shows total leaks repaired per mile, total leaks per mile and total leaks outstanding per mile for each state.
Why this Metric is important	Leak management is measured by the total number of leaks repaired per mile, the total number of hazardous leaks repaired per mile, and the total leaks scheduled for repair per mile for gas distribution systems in each state. This provides an overview of the status of gas distribution pipeline systems in each state and the efforts to locate, evaluate, and repair and mitigate leaks.
Data Sources	The data for this metric will be taken from a summary of each states distribution operator annual reports. (Form PHMSA F 7100.1-1 Part D)
Unique Considerations	Various major catastrophic events could skew results
Potential Accelerated Actions (AA's)	<ul style="list-style-type: none"> • State will need to analyze each operator and by leak cause • Encourage systematic and accelerated replacement programs • DIMP program analysis • Additional leak surveys • Leak classification requirements • Trending analysis by operator • Interaction and sharing of data acquired by state with operators • Additional state regulations
Report output information	Data per mile will be shown by bar graph.

Performance Metric Five: Enforcement

Description of Metric	This metric demonstrates the effectiveness of the state's regulatory enforcement program
Why this Metric is important	<p>Effective state enforcement programs and processes are necessary to ensure all operators are in compliance with all applicable pipeline safety regulations. The effectiveness of the State agency's pipeline safety efforts depends on information obtained through inspections and evaluation of operator compliance. Each State agency must have a current written plan for its pipeline safety program.</p> <p>An important aspect of any State agency's compliance program involves the gathering of the necessary evidence for documenting noncompliance. Subsequent to each inspection, any findings should be documented and include an account of the situations encountered during the inspection and a copy of the inspection checklist. The documentation must identify and describe each regulation with which the operator is believed to be in noncompliance. Copies of relevant operator records, statements from operator personnel, photographs, calculations, and all other data pertaining to each issue of noncompliance should be made a part of the documentation.</p> <p>This metric demonstrates the effectiveness of the state's regulatory enforcement program. It is based on PHMSA's annual evaluation of the state's enforcement program, with review of the state's records and procedures. The state's performance is measured against the percentage of possible score that the state could achieve.</p>
Data Sources	Annual state program evaluation with review of state records and procedures
Unique Considerations	There may be issues with various operator types and sizes. Alternative punitive actions may be considered by each state. (other than civil penalties)
Potential Accelerated Actions (AA's)	<ul style="list-style-type: none"> • Automatic adoption of federal regulations • More stringent state regulations • Effective monitoring and supervision of enforcement process (i.e. documentation and follow-up) <ul style="list-style-type: none"> ○ Effective follow-up of corrective action related to regulation violations communicated to operators quantified by a ratio of corrected violations/outstanding violations at the end of each calendar year • Agency support on enforcement actions and policy • Adoption of federal civil penalty limits if needed • Self-identification process for operators • Analyze operator violations for repeat occurrence
Report output information	Bar chart based on total points received

Performance Metric Six: Incident Investigation	
Description of Metric	This metric demonstrates the effectiveness of the state's incident investigation process
Why this Metric is important	<p>State agencies must have effective incident investigation processes and must conduct investigations of each significant or reportable incident/accident involving a jurisdictional pipeline facility. The primary objective of the investigation activity is to minimize the possibility of recurrence and to institute enforcement actions where noncompliance with the safety standards has occurred. Effective incident investigation processes are also necessary to ensure operators have and effectively implement emergency response procedures and make continuous improvements to their emergency response programs.</p> <p>This metric demonstrates the effectiveness of the state's incident investigation process. It is based on PHMSA's annual evaluation of the state's program, with review of the state's records and procedures. It is measured against the percentage of possible score that the state could achieve, and is measured separately for hazardous liquid and natural gas pipelines. Since individual states sometimes experience a limited number of pipeline incidents, they may not conduct a full incident investigation in a given calendar year. In these years, evaluation of a state's incident investigation performance may be limited to evaluation of the procedures the state has in place.</p>
Data Sources	Annual state program evaluation with review of state records and procedures
Unique Considerations	Some states may have a limited amount of incidents and we would only be able to evaluate procedures in place.
Potential Accelerated Actions (AA's)	<ul style="list-style-type: none"> • Tabletop exercises • Share and analyze incident reports from other states with stakeholders • All staff additional training (i.e. fire schools, root cause analysis training etc.) • Periodic communication with operators and other stakeholders on lessons learned from other incidents.
Report output information	Bar chart based on total points received

EXHIBIT 3

About Us

CGA is a member-driven association of 1,700 individuals, organizations and sponsors in every facet of the underground utility industry. Established in 2000, CGA is committed to saving lives and preventing damage to underground infrastructure by promoting effective damage prevention practices. CGA has established itself as the leading organization in an effort to reduce damages to underground facilities in North America through shared responsibility among all stakeholders.

In promoting a spirit of shared responsibility, the CGA welcomes all stakeholders who would like to be a part of the identification and promotion of best practices that lead to a reduction in damage. Any best practice or program endorsed by the CGA comes with consensus support from experts representing the following stakeholder groups: Excavators, Locators, Road Builders, Electric, Telecommunications, Oil, Gas Distribution, Gas Transmission, Railroad, One Call, Public Works, Equipment Manufacturing, State Regulators, Insurance, Emergency Services and Engineering/Design.

Background

Officially formed in 2000, the CGA represents a continuation of the damage prevention efforts embodied by the Common Ground Study. Sponsored by the U.S. Department of Transportation and completed in 1999, this Study represents the collaborative work of 160 industry professionals who identified best practices relating to damage prevention.

The CGA provides today's optimal forum where stakeholders can share information and perspectives and work together on all aspects of damage prevention issues. This allows the achievement of results that would otherwise be impossible. The CGA is working with industry stakeholders and regulators to produce stronger, more effective results through partnership, collaboration, and the pursuit of common goals in damage prevention.

CGA Mission

The Common Ground Alliance is dedicated to preventing damage to underground utility infrastructure and protecting those who live and work near these important assets through the shared responsibility of our stakeholders.

CGA Goals

Information and Analysis

Develop information and analysis designed to enhance our members' ability to implement effective damage prevention processes and programs.

Education

Increase education of the industry, public and policymakers about the importance of the damage prevention process.

Stakeholder Engagement

Provide a collaborative forum for stakeholders to identify and highlight effective damage prevention practices and programs.

EXHIBIT 4

Row Labels	Count of Address
Excavation Practices Not Sufficient	696
Excavated Outside Delineated Area	37
Excavator Failure to Use Hand Tools	264
Failed to call PG&E or 811 when discovering or causing damage to PG&E subsurface facilities	1
Failed to maintain marks	53
Failed to protect, support, or remove subsurface installation while excavation is open, as necessary to safeguard employees	83
Inadequate Excavation Practices	258
Locating Practices Not Sufficient	252
Facility markings inadequate	3
Facility was not located or marked	80
Incorrect facility records/maps	103
Incorrect information or marks	48
Locating Wire Missing or Broken	18
One-Call Notification Practices Not Sufficient	759
Excavated prior to legal excavation start date and time	9
Excavated prior to positive response from all utilities noted on ticket	18
Failed to delineate work site with white markings	20
Failed to request additional information from PG&E when exact location of subsurface installation could not be determined by hand excavation	4
Insufficient information to USA	2
No USA Ticket	706
Other	11
Abandoned/deactivated facility issue	3
Other	3
Unknown	5
(blank)	
(blank)	
Grand Total	1718

EXHIBIT 5



PG&E QA AUDIT **NONCONFORMANCE** REPORT (NCR) (RISK-7001S-F02 Rev7)

Report Number: NCR20

Report Date: 3/10/2010

Status: Final

Subject: Negotiated New Start Time

Executive Summary: 3.8% of all September 2009 tickets indicated that a new start date/time was negotiated. The majority of these tickets were entered into IRTNet as "negotiated" primarily as a means to keep the ticket from going overdue. As a result, incorrect data is being used to report on-time results.

NC Significance: Tier 2

Responsible Party:

Auditor(s):



Is Part of Finding? No

Finding # (if Yes):

Audit Details

Audit Number: 2009 - 0115
Audit Location: System-wide
Audit Category: Damage Prevention

REFERENCE(S)

California Government Code 4216.3 (a) (1) Any operator of a subsurface installation who receives timely notification of any proposed excavation work in accordance with Section 4216.2 shall, within two working days of that notification, excluding weekends and holidays, or before the start of the excavation work, whichever is later, or at a later time mutually agreeable to the operator and the excavator, locate and field mark the approximate location and, if known, the number of subsurface installations that may be affected by the excavation.

DESCRIPTION(S):

California Government Code Section 4216.3 provides operators two working days from notification of excavation to locate and mark underground facilities. The code also allows operators to provide this service at a later date/time, which is mutually agreeable to the operator and excavator. However, PG&E M&L employees are indicating that a new start date/time was negotiated, when in fact, no mutual agreement was reached. Furthermore, when the "negotiation" occurred after the date/time the ticket originally came due, the ticket is not included in the reporting of late tickets.

Gas QA analyzed 42 randomly selected tickets from the September population of 396 tickets to take a closer look at the details behind the negotiations. The data from this analysis shows that in some cases PG&E is appropriately negotiating a new start date/time as a tool to legitimately manage work load. However, the analysis also suggests that the majority of tickets with a negotiated new start time were entered into IRTNet as "negotiated" primarily as a means to keep the ticket from going overdue. A summary of the results from the analysis follows:

- **Result 1** - 66.7% (28 of 42) of the tickets had a new start time/date negotiated on average of 72 minutes prior to coming due. Most of these tickets were completed within hours of originally coming. This strongly suggests that the M&L employee was running late and used the "negotiated new start date/time" field in IRTNet to prevent a late response from being recorded.
- **Result 2** - 11.9% (5 of 42) of the tickets were actually late. The negotiation occurred after the ticket was due. When the "negotiation" occurred after the date/time the ticket originally came due, the ticket is not included in the reporting of late tickets.
- **Result 3** - 21.4% (9 of 42) of the tickets had a new start time/date negotiated > 24 hours prior to coming due. Seven of these tickets were completed the next business day. Two were completed two business days after the negotiated new start date.

The sample size and method used for the analysis provides results with a 95% confidence level, and an accuracy of +/- 4%.



Continuation Sheet

The table below (limited to only September 2009 data to reduce analysis time) shows that for the five Divisions/Districts audited, PG&E negotiated a new start date/time 396 times, or 3.8% of all September 2009 USA tickets.

September 2009 Tickets in audited Divisions and Districts

	Sacramento	Yosemite	Meridian	Peninsula	Diablo	Total
Total Tickets	5,177	2,369	66	1,348	1,356	10,316
Negotiated new start time	213	92	0	40	51	396
% Total tickets with negotiated new start time	4.1%	3.9%	N/A	3.0%	3.8%	3.8%

To further support the conclusions from this analysis, Gas QA was told during the audit that some Mark & Locate employees enter comments into IRTNet stating that a new start date/time was negotiated specifically as a work around to keep from going late. These comments are entered without actually negotiating a new start date/time.

Additional data and discussion regarding Result 1 follows:

- Negotiated new start date/time ranged from just one minute to 183 minutes prior to time due.
- Mean (ordinary arithmetic average) = 72 minutes
- Median (middle value) = 45 minutes
- Number of tickets that were marked later on the same day as originally due = 16
- Number of these tickets that were marked later on the business day following original due date = 9
Note that all nine of these tickets were originally due in the afternoon. Therefore, a later start time essentially required the next opportunity to be the following working day
- Four tickets have locator notes of particular interest.
 - 265716 – Already excavated. QA note: Ticket was negotiated one minute prior to coming due.
 - 275090 – Already excavated. QA note: Ticket was negotiated 11 minutes prior to coming due
 - 204069 – Assistance required from excavator. QA note: This is a valid and acceptable reason for a negotiated new start date/time.
 - 278079 – Marked by other crew. Ticket was negotiated 111 minutes prior to coming due.

POTENTIAL IMPACT:

Incorrect data is being used to report on-time results. This data, in turn, makes the M&L on-time performance appear better than it is. This may result in too few resources being provided to Mark & Locate personnel to timely respond to tickets.

COMMENTS**Provisional Comments/Guidance:****ATTACHMENTS:**

Details from the 42 randomly selected tickets from September.

List of negotiated new start date/time tickets from September 2009 for each Division audited.

Negotiated New Start Date/Time

Division	Ticket	Planned Start Date	Planned Start Time	Date Excavator Was Contacted to Negotiate	Time Excavator Was Contacted to Negotiate	Days	Hrs/mins	Differential	Actual Date Responded	Actual Time Responded	Notice Given By Excavator	Ticket Notes
Sacramento	265716	9/1/09	8:15	09/01/09	8:14	0	0:01	0:01	9/1/09	11:47	20	negotiated new start date/time with excavator. Dug on 8/31, before due date
Yosemite	266824	9/2/09	7:00	09/02/09	6:54	0	0:06	0:06	9/2/09	7:00	21	negotiated new start date/time with excavator. Remarks requested are for another utility, no pics req, marked out by transmission locator.
Yosemite	275090	9/9/09	14:30	09/09/09	14:19	0	0:11	0:11	9/14/09	16:13	20	negotiated new start date/time with excavator. This site was excavated before being marked by PG&E.
Sacramento	287167	9/18/09	10:45	09/18/09	10:30	0	0:15	0:15	9/18/09	11:22	20	negotiated new start date/time with excavator. Painted no pge, no pics req.
Sacramento	286718	9/18/09	8:45	09/18/09	8:26	0	0:19	0:19	9/18/09	9:19	20	negotiated new start date/time with excavator. Painted, placed flags
Sacramento	274084	9/9/09	8:00	09/09/09	7:39	0	0:21	0:21	9/10/09	9:39	20	negotated new start date/time with excvator. Cleared from office no pictures req. Left message for excavator
Sacramento	265095	9/1/09	8:00	09/01/09	7:39	0	0:21	0:21	9/1/09	13:58	24	Negotiated new start date/time with excavator. Painted no pge, no pics req.
Yosemite	278433	9/11/09	11:00	09/11/09	10:35	0	0:25	0:25	9/11/09	12:43	20	negotiated new start date/time with excavator. Painted no pge, no pics req
Yosemite	285241	9/17/09	10:00	09/17/09	9:21	0	0:39	0:39	9/17/09	13:03	20	negotiated new start date/time with excavator. Painted.
Sacramento	270823	9/8/09	9:00	09/08/09	8:20	0	0:40	0:40	9/8/09	9:52	30	Negotiated new start date/time with excavator. Painted
Peninsula	298929	9/30/09	8:00	09/30/09	7:17	0	0:43	0:43	10/1/09	14:32	28	Negotiated new start date/time with excavator. Painted, marked gas main and elec in area of int.
Sacramento	281166	9/14/09	15:45	09/14/09	15:00	0	0:45	0:45	9/15/09	13:15	20	negotiated new start date/time. No marks on ground to match this ticket. (responded again at 9/15/9 at 13:31 and placed offsets)
Sacramento	281157	9/14/09	15:45	09/14/09	15:00	0	0:45	0:45	9/15/09	14:35	20	negotiated new start date/time with excavator.
Sacramento	281160	9/14/09	15:45	09/14/09	15:00	0	0:45	0:45	9/15/09	17:42	20	negotiated new start date/time with excavator. Painted. Could not locate service on address [REDACTED] no tracing wire. Left message for [REDACTED].
Sacramento	289412	9/22/09	9:00	09/22/09	8:14	0	0:46	0:46	9/22/09	10:17	25	negotiated new start date/time. Placed flags, painted usa area marked with red flags per [REDACTED]. Ticket does not show gas but located line 172 in area. [REDACTED] will call office for standby.
Sacramento	300847	9/30/09	9:30	09/30/09	8:42	0	0:48	0:48	9/30/09	12:18	18	Negotiated new start date/time with excavator. Area was not delineated.; Message left for excavator. PLACED FLAGS NEXT TO WHERE APEARS TO BE THE LOC
Yosemite	285134	9/17/09	9:30	09/17/09	8:32	0	0:58	0:58	9/17/09	11:16	20	Negotiated new start date/time with excavator.
Peninsula	282364	9/16/09	10:00	09/16/09	8:35	0	1:25	1:25	9/16/09	9:46	26	negotiated new start dat/time with excavator. Painted no pge, no pics req
Diablo	278079	9/11/09	9:15	09/11/09	7:24	0	1:51	1:51	9/18/09	13:46	20	Negotiated new start date/time with excavator. Marked by another PG&E crew
Sacramento	293659	9/24/09	9:45	09/24/09	7:51	0	1:54	1:54	9/24/09	10:38	20	Negotiated new start date/time with excavator. Area was not delineated.
Sacramento	282518	9/15/09	15:15	09/15/09	13:08	0	2:07	2:07	9/16/09	11:07	20	negotiated new start date/time with excavator. Painted, placed offsets, place flags, marked gas service, marked gas main.
Yosemite	277152	9/10/09	14:30	09/10/09	12:12	0	2:18	2:18	9/11/09	11:05	20	Negotiated new start date/time with excavator. Painted, marked gas main, marked gas service, camera not working.
Sacramento	282550	9/15/09	15:30	09/15/09	13:09	0	2:21	2:21	9/16/09	11:47	20	negotiated new start date/time with excavator. Painted no pge, no pics req
Yosemite	277164	9/10/09	14:30	09/10/09	12:09	0	2:21	2:21	9/11/09	11:25	20	Negotiated new start date/time with excavator. Painted, marked gas main. Camera not working
Yosemite	277266	9/10/09	14:45	09/10/09	12:19	0	2:26	2:26	9/11/09	8:25	20	negotiated new start date/time with excavator. Painted no pge, no pics req
Yosemite	275150	9/9/09	17:00	09/09/09	14:25	0	2:35	2:35	9/10/09	10:54	20	negotiated new start date/time with excavator.
Yosemite	277288	9/10/09	15:00	09/10/09	12:20	0	2:40	2:40	9/11/09	10:46	20	negotiated new start date/time with excavator. Painted, marked gas main, marked gas service
Diablo	269402	9/3/09	10:00	09/03/09	6:57	0	3:03	3:03	9/3/09	14:25	20	negotiated new start date/time. Crew to locate
Peninsula	290085	9/22/09	8:30	09/21/09	15:32	1		>24 hrs	9/22/09	12:46	20	Negotiated new start date/time with excavator.24 HR WINDOW PER CALLER No pictures req'd.; No re-marks req'd - closed this ticket.
Sacramento	277969	9/11/09	8:46	09/10/09	16:48	1		>24 hrs	9/11/09	9:22	20	negotiated nw start date/time. Painted, placed flags, marked gas service
Sacramento	298655	9/29/09	8:30	09/28/09	15:35	1		>24 hrs	9/29/09	12:21	20	negotiate new start date/time with excvator. Ok to by 9/30/09 spoke to [REDACTED]. Painted no pge, no pics req, marked no pge gas on 9/28/09 for smud.
Sacramento	293038	9/24/09	7:00	09/23/09	14:04	1		>24 hrs	9/24/09	12:09	20	Negotiated new start date/time with excavator. Marked secondary electric., marked gas service, placed flags
Diablo	297185	10/1/09	7:00	09/30/09	14:28	1		>24 hrs	10/2/09	13:30	47	negotiated new start date/time with excavator. Painted

Negotiated New Start Date/Time

Division	Ticket	Planned Start Date	Planned Start Time	Date Excavator Was Contacted to Negotiate	Time Excavator Was Contacted to Negotiate	Days	Hrs/mins	Differential	Actual Date Responded	Actual Time Responded	Notice Given By Excavator	Ticket Notes
Sacramento	270200	9/4/09	8:00	09/03/09	14:05	1		>24 hrs	9/4/09	8:58	23	negotiated new start date/time with excavator. Painted
Peninsula	264749	9/7/09	8:00	09/04/09	13:30	3		>24 hrs	9/8/09	16:50	65	Negotiated new date/time with excavator. Marked gas service/main with paint/flags-elec oh-no usa markings-j1wx
Yosemite	281134	9/15/09	7:00	09/11/09	14:34	4		>24 hrs	9/15/09	10:45	21	negotiated new start date/time with excavator. Painted.
Peninsula	282480	9/25/09	14:45	09/14/09	14:05	11		>24 hrs	9/15/09	16:22	20	Negotiated new start date/time with excavator. This is a phased ticket. Painted, placed flags marked gas service marked gas main, marked primary electric, marked secondary electric
Sacramento	297357	9/28/09	12:00	09/29/09	16:36	-1	4:36	late	10/5/09	14:49	21	Negotiated new start date/time with excavator.
Sacramento	281501	9/15/09	7:30	09/15/09	8:51	0	1:21	late	9/18/09	9:46	20	negotiated new start date/time with excavator (this is big locate and will work ahead of const.)
Diablo	267662	9/3/09	8:00	09/03/09	8:17	0	0:17	late	9/4/09	14:40	27	negotiated new start date/time with excavator. ██████ said they weren't starting til Tuesday 9/8/09 need to mark by then.
Diablo	264069	9/1/09	10:00	09/01/09	13:48	0	3:48	late	9/2/09	9:21	31	negotiated new start date/time with excavator, assistance needed. Painted. No elec. Lines un north from treat to # ██████ per mapping and building engineer. ██████ are fed from wayne dr.
Yosemite	277514	9/11/09	9:00	09/11/09	9:06	0	0:06	late	9/11/09	9:30	22	negotiated new start date/time with excavator. Marked gas service

Sacramento - September 2009
Negotiated new start date/time

Count of response name				
response_name	locator_note_1st		occticketid	Total
.FACILITY MARKED	Negotiated new start date/time with [REDACTED]	the week of 9	284864	1
	Negotiated new start date/time with [REDACTED]	the week of 9 Total		1
	Negotiated new start date/time with excavator.		261749	1
			264767	1
			265324	1
			265618	1
			265802	1
			265839	1
			266248	1
			266538	1
			269382	1
			270200	1
			270242	1
			270262	1
			270630	1
			270700	1
			270823	1
			271456	1
			272494	1
			273795	1
			274634	1
			275654	1
			276503	1
			276506	1
			277128	1
			277969	1
			278011	1
			278016	1
			278022	1
			278144	1
			278714	1
			279610	1
			279630	1
			280005	1
			280009	1
			280015	1
			280024	1
			280223	1
			280374	1
			281151	1
			281157	1
			281160	1
			281166	1
			281173	1
			281181	1
			281186	1
			281789	1
			282286	1
			282418	1
			282513	1
			282518	1

Sacramento - September 2009
Negotiated new start date/time

.FACILITY MARKED	Negotiated new start date/time with excavator.	282520	1
		282524	1
		284829	1
		286281	1
		286658	1
		286718	1
		287184	1
		287207	1
		287216	1
		287220	1
		287225	1
		287325	1
		287978	1
		288469	1
		288514	1
		289412	1
		290359	1
		292100	1
		293038	1
		301185	1
	Negotiated new start date/time with excavator. Total		69
	Negotiated new start date/time with excavator. UNLOCADABLE	271850	1
	Negotiated new start date/time with excavator. UNLOCADABLE Total		1
	Negotiated new start date/time with excavator. call [REDACTED]	281501	1
	Negotiated new start date/time with excavator. call [REDACTED] Total		1
	Negotiated new start date/time with excavator. 9/21 12:30 p.	287312	1
	Negotiated new start date/time with excavator. 9/21 12:30 p. Total		1
	Negotiated new start date/time with excavator. 9/9/09	266669	1
	Negotiated new start date/time with excavator. 9/9/09 Total		1
	Negotiated new start date/time with excavator. [REDACTED] start	272908	1
	Negotiated new start date/time with excavator. [REDACTED] start Total		1
	Negotiated new start date/time with excavator. got this tag	274291	1
	Negotiated new start date/time with excavator. got this tag Total		1
	Negotiated new start date/time with excavator. he will lay o	275602	1
	Negotiated new start date/time with excavator. he will lay o Total		1
	Negotiated new start date/time with excavator....ok to mark	274174	1
	Negotiated new start date/time with excavator....ok to mark Total		1
	Negotiated new start date/time with excavator.; Assistance n	297357	1
		299840	1
	Negotiated new start date/time with excavator.; Assistance n Total		2
	Negotiated new start date/time with excavator.; Contact name	268946	1
		287543	1
		287552	1
		301402	1
		301406	1
	Negotiated new start date/time with excavator.; Contact name Total		5
	Negotiated new start date/time with excavator.called contact	280297	1
	Negotiated new start date/time with excavator.called contact Total		1
	Negotiated new start date/time with excavator.-----left me	297811	1
	Negotiated new start date/time with excavator.-----left me Total		1
	Negotiated new start date/time with excavator.-----spo	285257	1
	Negotiated new start date/time with excavator.-----spo Total		1
	Negotiated new start date/time with excavator.-----spoke to	292888	1
	Negotiated new start date/time with excavator.-----spoke to Total		1
	Negotiated new start date/time with excavator.-----spoke to	277081	1

Sacramento - September 2009
Negotiated new start date/time

.FACILITY MARKED	Negotiated new start date/time with excavator.-----spoke to Total		1
	Negotiated new start date/time with excavator.---spoke to Fr	270210	1
	Negotiated new start date/time with excavator.---spoke to Fr Total		1
.FACILITY MARKED Total			91
.NO CONFLICT	Negotiated new start date/time with 9/14/09 9AM staten isla		278388
	Negotiated new start date/time with 9/14/09 9AM staten isla Total		1
	Negotiated new start date/time with excavator.		265077
		265095	1
		266020	1
		266436	1
		266490	1
		267647	1
		268294	1
		268388	1
		268759	1
		269223	1
		270049	1
		270055	1
		270059	1
		270062	1
		270065	1
		270188	1
		271075	1
		271762	1
		272730	1
		272925	1
		272931	1
		272938	1
		274073	1
		274077	1
		274078	1
		274082	1
		274084	1
		274086	1
		274423	1
		275401	1
		275405	1
		275408	1
		275410	1
		275413	1
		275415	1
		275471	1
		275472	1
		275475	1
		278699	1
		278718	1
		279301	1
		279305	1
		279307	1
		279310	1
		279314	1
		279315	1
		281176	1
		282550	1
		282913	1

Sacramento - September 2009
Negotiated new start date/time

.NO CONFLICT	Negotiated new start date/time with excavator.	283124	1
		285500	1
		287167	1
		287289	1
		287316	1
		287720	1
		288535	1
		290254	1
		290261	1
		293024	1
		293427	1
		293512	1
		298894	1
		300839	1
		301190	1
		301191	1
	Negotiated new start date/time with excavator. Total		65
	Negotiated new start date/time with excavator.	277925	1
	Negotiated new start date/time with excavator. Total		1
	Negotiated new start date/time with excavator. 9/14/09 9Am w	278337	1
	Negotiated new start date/time with excavator. 9/14/09 9Am w Total		1
	Negotiated new start date/time with excavator. 9/30 per [REDACTED]	296237	1
		296247	1
		296250	1
	Negotiated new start date/time with excavator. 9/30 per [REDACTED] Total		3
	Negotiated new start date/time with excavator. ok mark 8/2	266039	1
	Negotiated new start date/time with excavator. ok mark 8/2 Total		1
	Negotiated new start date/time with excavator. spoke with ca	268510	1
	Negotiated new start date/time with excavator. spoke with ca Total		1
	Negotiated new start date/time with excavator. start date 9/	296231	1
	Negotiated new start date/time with excavator. start date 9/ Total		1
	Negotiated new start date/time with excavator.10/1 per [REDACTED]	299416	1
	Negotiated new start date/time with excavator.10/1 per [REDACTED] Total		1
	Negotiated new start date/time with excavator.left message w	299255	1
	Negotiated new start date/time with excavator.left message w Total		1
	Negotiated new start date/time with excavator.new start 10/1	299772	1
	Negotiated new start date/time with excavator.new start 10/1 Total		1
	Negotiated new start date/time with excavator.New start date	276979	1
	Negotiated new start date/time with excavator.New start date Total		1
	Negotiated new start date/time with excavator.no gas in area	285983	1
	Negotiated new start date/time with excavator.no gas in area Total		1
	Negotiated new start date/time with excavator.-----OK to	298690	1
	Negotiated new start date/time with excavator.-----OK to Total		1
	Negotiated new start date/time with excavator.-----OK to by	298655	1
	Negotiated new start date/time with excavator.-----OK to by Total		1
	Negotiated new start date/time with excavator.-----OK to do	298667	1
	Negotiated new start date/time with excavator.-----OK to do Total		1
	Negotiated new start date/time with excavator.----OK to do b	298686	1
	Negotiated new start date/time with excavator.----OK to do b Total		1
	Negotiated new start date/time with excavator.---OK to do by	298669	1
	Negotiated new start date/time with excavator.---OK to do by Total		1
	Negotiated new start date/time with excavator.--OK to do by	298664	1
	Negotiated new start date/time with excavator.--OK to do by Total		1
	Negotiated new start date/time with excavator.Talked to [REDACTED]	294764	1
	Negotiated new start date/time with excavator.Talked to [REDACTED] Total		1

Sacramento - September 2009
Negotiated new start date/time

.NO CONFLICT	Negotiated new start date/time with excavator.will locate 9-	265401	1
	Negotiated new start date/time with excavator.will locate 9- Total		1
	Negotiated new start date/time with excavator.will start wor	296140	1
	Negotiated new start date/time with excavator.will start wor Total		1
.NO CONFLICT Total			88
CANCELLED TICKET	Negotiated new start date/time with excavator.	268042	1
	Negotiated new start date/time with excavator. Total		1
	Negotiated new start date/time with excavator.; Assistance n	298435	1
		298438	1
		298441	1
Negotiated new start date/time with excavator.; Assistance n Total			3
CANCELLED TICKET Total			4
DUPLICATE TICKET	Negotiated new start date/time with excavator.	281184	1
	Negotiated new start date/time with excavator. Total		1
	Negotiated new start date/time with excavator. 9/08/09	267293	1
	Negotiated new start date/time with excavator. 9/08/09 Total		1
DUPLICATE TICKET Total			2
EXCAVATED BEFORE MARKED	Negotiated new start date/time with excavator.	265711	1
		265716	1
		271793	1
		271796	1
		273790	1
		277350	1
		301196	1
	Negotiated new start date/time with excavator. Total		7
EXCAVATED BEFORE MARKED Total			7
NO DELINEATION	Negotiated new start date/time with excavator.	286309	1
		293659	1
		300847	1
		301382	1
	Negotiated new start date/time with excavator. Total		4
NO DELINEATION Total			4
NO REMARK REQUIRED	Negotiated new start date/time with excavator. he will lay o	275596	1
	Negotiated new start date/time with excavator. he will lay o Total		1
NO REMARK REQUIRED Total			1
RESPOND TO AN OPEN TICKET	Negotiated new start date/time with [REDACTED] maybe the wee	284875	1
	Negotiated new start date/time with [REDACTED] maybe the wee Total		1
	Negotiated new start date/time with [REDACTED] , maybe the we	284873	1
	Negotiated new start date/time with [REDACTED] , maybe the we Total		1
	Negotiated new start date/time with excavator.	265257	1
		266737	1
	Negotiated new start date/time with excavator. Total		2
	Negotiated new start date/time with excavator. 9/30 per [REDACTED]	296243	1
	Negotiated new start date/time with excavator. 9/30 per [REDACTED] Total		1
	Negotiated new start date/time with excavator. [REDACTED] says wor	284853	1
	Negotiated new start date/time with excavator. [REDACTED] says wor Total		1
	Negotiated new start date/time with excavator. Met with [REDACTED]	294725	1
	Negotiated new start date/time with excavator. Met with [REDACTED] Total		1
	Negotiated new start date/time with excavator. on 10 /6/09	293445	1
	Negotiated new start date/time with excavator. on 10 /6/09 Total		1
	Negotiated new start date/time with excavator. Week of 9/21/	282857	1
	Negotiated new start date/time with excavator. Week of 9/21/ Total		1
	Negotiated new start date/time with excavator.-----spoke	287876	1
	Negotiated new start date/time with excavator.-----spoke Total		1
RESPOND TO AN OPEN TICKET Total			10

Sacramento - September 2009
Negotiated new start date/time

SITE VISIT/FIELD MEET	Negotiated new start date/time with excavator.	272852	1
		274894	1
		282010	1
		286374	1
		289320	1
		300483	1
	Negotiated new start date/time with excavator. Total		6
SITE VISIT/FIELD MEET Total			6
Grand Total			213

Yosemite - September 2009
Negotiated new start date/time

Count of response name			
response_name	locator_note_1st	occticketid	Total
.FACILITY MARKED	Negotiated new start date/time with excavator.	267215	1
		267611	1
		270770	1
		273801	1
		273869	1
		274149	1
		275082	1
		275096	1
		275102	1
		275104	1
		275111	1
		275150	1
		275158	1
		275160	1
		275166	1
		275169	1
		275173	1
		275179	1
		275341	1
		277038	1
		277145	1
		277147	1
		277152	1
		277155	1
		277159	1
		277160	1
		277164	1
		277169	1
		277171	1
		277256	1
		277288	1
		277294	1
		277305	1
		277448	1
		277513	1
		277514	1
		277518	1
		277522	1
		277524	1
		277529	1
		277531	1
		277537	1
		278069	1
		278087	1
		278208	1
		278259	1
		278478	1
		279682	1
		281134	1
		284935	1
		285134	1

Yosemite - September 2009
Negotiated new start date/time

.FACILITY MARKED	Negotiated new start date/time with excavator.	285241	1
		286224	1
		288886	1
		289080	1
		289915	1
		300929	1
	Negotiated new start date/time with excavator. Total		57
	Negotiated new start date/time with excavator. job start t	278156	1
	Negotiated new start date/time with excavator. job start t Total		1
	Negotiated new start date/time with excavator. Called [REDACTED]	277242	1
	Negotiated new start date/time with excavator. Called [REDACTED] Total		1
	Negotiated new start date/time with excavator. need to mark	236564	1
	Negotiated new start date/time with excavator. need to mark Total		1
	Negotiated new start date/time with excavator. NEEDS TO BE D	296124	1
	Negotiated new start date/time with excavator. NEEDS TO BE D Total		1
	Negotiated new start date/time with excavator. ok if located	299192	1
	Negotiated new start date/time with excavator. ok if located Total		1
	Negotiated new start date/time with excavator.; This is a ph	294364	1
	Negotiated new start date/time with excavator.; This is a ph Total		1
	Negotiated new start date/time with excavator.mark out by en	300235	1
	Negotiated new start date/time with excavator.mark out by en Total		1
	Negotiated new start date/time with excavator.New start time	270707	1
		278201	1
	Negotiated new start date/time with excavator.New start time Total		2
.FACILITY MARKED Total			66
.NO CONFLICT	Negotiated new start date/time with excavator.	265773	1
		265793	1
		265808	1
		273967	1
		275086	1
		275174	1
		277173	1
		277223	1
		277249	1
		277261	1
		277264	1
		277266	1
		277296	1
		277309	1
		278433	1
		278438	1
		278442	1
		278447	1
		279339	1
		288807	1
		288871	1
	Negotiated new start date/time with excavator. Total		21
	Negotiated new start date/time with excavator. talked with	273430	1
	Negotiated new start date/time with excavator. talked with Total		1
.NO CONFLICT Total			22
EXCAVATED BEFORE MA	Negotiated new start date/time with excavator.	275090	1
		275094	1
Negotiated new start date/time with excavator. Total			2
EXCAVATED BEFORE MARKED Total			2
PG&E RESPONSE NOT RE	Negotiated new start date/time with excavator.	266824	1

Yosemite - September 2009
Negotiated new start date/time

PG&E RESPONSE NOT REQUIRED	Negotiated new start date/time with excavator. Total	1
PG&E RESPONSE NOT REQUIRED Total		1
RESPOND TO AN OPEN TICKET	Negotiated new start date/time with excavator.	265799
	Negotiated new start date/time with excavator. Total	1
RESPOND TO AN OPEN TICKET Total		1
Grand Total		92

Peninsula - September 2009
Negotiated new start date/time

Count of response name				
response_name	locator_note_1st	occticketid	Total	
.FACILITY MARKED	Negotiated new start date/time with excavator.	287984	1	
		289588	1	
		293981	1	
		298929	1	
		299145	1	
		299297	1	
		299441	1	
		299578	1	
		299601	1	
		299738	1	
		300006	1	
		302289	1	
	Negotiated new start date/time with excavator. Total			12
	Negotiated new start date/time with excavator. By 10 am 10/1		301075	1
	Negotiated new start date/time with excavator. By 10 am 10/1 Total			1
	Negotiated new start date/time with excavator.; This is a ph	270309	1	
		282480	1	
		282481	1	
		285715	1	
	Negotiated new start date/time with excavator.; This is a ph Total			4
	Negotiated new start date/time with excavator.24 HR WINDOW P		290077	1
	Negotiated new start date/time with excavator.24 HR WINDOW P Total			1
	Negotiated new start date/time with excavator.CALLED FOR CHA		274715	1
	Negotiated new start date/time with excavator.CALLED FOR CHA Total			1
	Negotiated new start date/time with excavator.CALLED LEFT ME		276270	1
		278781	1	
	Negotiated new start date/time with excavator.CALLED LEFT ME Total			2
	Negotiated new start date/time with excavator.NO VERTICAL BO		281072	1
	Negotiated new start date/time with excavator.NO VERTICAL BO Total			1
	Negotiated new start date/time with excavator.WILL M&L IN TH		289907	1
	Negotiated new start date/time with excavator.WILL M&L IN TH Total			1
	Negotiated new start date/time with excavator.WORK BEGINS 9-		275339	1
	Negotiated new start date/time with excavator.WORK BEGINS 9- Total			1
.FACILITY MARKED Total			24	
.NO CONFLICT	Negotiated new start date/time with excavator.	278744	1	
		282364	1	
		283142	1	
		299200	1	
		301301	1	
	Negotiated new start date/time with excavator. Total		5	
	Negotiated new start date/time with excavator. no usa called		272092	1
	Negotiated new start date/time with excavator. no usa called Total			1
	Negotiated new start date/time with excavator.ASKED FOR 2 HR		281890	1
	Negotiated new start date/time with excavator.ASKED FOR 2 HR Total			1
	Negotiated new start date/time with excavator.WILL M&L LATER		297554	1
	Negotiated new start date/time with excavator.WILL M&L LATER Total			1
	.NO CONFLICT Total			8
EXCAVATED BEFORE MARK	Negotiated new start date/time with excavator.	300003	1	
	Negotiated new start date/time with excavator. Total		1	
EXCAVATED BEFORE MARKED Total			1	
NO REMARK REQUIRED	Negotiated new start date/time with excavator.24 HR WINDOW P	290083	1	
		290085	1	
Negotiated new start date/time with excavator.24 HR WINDOW P Total			2	

Peninsula - September 2009
Negotiated new start date/time

NO REMARK REQUIRED Total			2
RESPOND TO AN OPEN TICKET	Negotiated new start date/time with excavator.	291728	1
		295821	1
		299312	1
	Negotiated new start date/time with excavator. Total		3
	Negotiated new start date/time with excavator. not starting	264749	1
	Negotiated new start date/time with excavator. not starting Total		1
	Negotiated new start date/time with excavator.; This is a ph	266706	1
	Negotiated new start date/time with excavator.; This is a ph Total		1
RESPOND TO AN OPEN TICKET Total			5
Grand Total			40

Diablo - September 2009
Negotiated new start date/time

Count of response_name			
response_name	locator_note_1st	occticketid	Total
.FACILITY MARKED	Negotiated new start date/time with excavator, next week. ca	293646	1
	Negotiated new start date/time with excavator, next week. ca Total		1
	Negotiated new start date/time with excavator.	266119	1
		269328	1
		269402	1
		271780	1
		272099	1
		273009	1
		276359	1
		277474	1
		277605	1
		278057	1
		278068	1
		278079	1
		285683	1
		285915	1
		285985	1
		297180	1
		297185	1
		297205	1
		297210	1
		297214	1
		298881	1
		300188	1
	Negotiated new start date/time with excavator. Total		22
	Negotiated new start date/time with excavator.	292444	1
	Negotiated new start date/time with excavator. Total		1
	Negotiated new start date/time with excavator. 9-15-09	281185	1
	Negotiated new start date/time with excavator. 9-15-09 Total		1
	Negotiated new start date/time with excavator. Can't get the	293159	1
		293744	1
		295702	1
		296136	1
		296991	1
	Negotiated new start date/time with excavator. Can't get the Total		5
	Negotiated new start date/time with excavator. I spoke with	288957	1
	Negotiated new start date/time with excavator. I spoke with Total		1
	Negotiated new start date/time with excavator. I will not be	269898	1
		273465	1
		278466	1
	Negotiated new start date/time with excavator. I will not be Total		3
	Negotiated new start date/time with excavator. I'm in rout t	279057	1
	Negotiated new start date/time with excavator. I'm in rout t Total		1
	Negotiated new start date/time with excavator. Left a messag	289573	1
	Negotiated new start date/time with excavator. Left a messag Total		1
	Negotiated new start date/time with excavator. tomorrow morn	272786	1
	Negotiated new start date/time with excavator. tomorrow morn Total		1
	Negotiated new start date/time with excavator.; Assistance n	264069	1
	Negotiated new start date/time with excavator.; Assistance n Total		1
	Negotiated new start date/time with excavator.9-22-09	289817	1
	Negotiated new start date/time with excavator.9-22-09 Total		1

Diablo - September 2009
Negotiated new start date/time

.FACILITY MARKED	Negotiated new start date/time with excavator.9-22-09 9:00am	289185	1
		289382	1
	Negotiated new start date/time with excavator.9-22-09 9:00am Total		2
	Negotiated new start date/time with excavator.need to marked	283776	1
	Negotiated new start date/time with excavator.need to marked Total		1
	Negotiated new start date/time with excavator.veronica said	267662	1
	Negotiated new start date/time with excavator.veronica said Total		1
.FACILITY MARKED Total			43
DUPLICATE TICKET	Negotiated new start date/time with excavator.	278041	1
		278092	1
	Negotiated new start date/time with excavator. Total		2
	Negotiated new start date/time with excavator. Can't get the	296136	1
	Negotiated new start date/time with excavator. Can't get the Total		1
DUPLICATE TICKET Total			3
EXCAVATED BEFORE MARK	Negotiated new start date/time with excavator. I will not be	279848	1
	Negotiated new start date/time with excavator. I will not be Total		1
EXCAVATED BEFORE MARKED Total			1
NO REMARK REQUIRED	Negotiated new start date/time with excavator. Left a messag	289244	1
	Negotiated new start date/time with excavator. Left a messag Total		1
NO REMARK REQUIRED Total			1
RESPOND TO AN OPEN TIC	Negotiated new start date/time with excavator.	276574	1
		298876	1
	Negotiated new start date/time with excavator. Total		2
	Negotiated new start date/time with excavator.; Contact name	271810	1
	Negotiated new start date/time with excavator.; Contact name Total		1
RESPOND TO AN OPEN TICKET Total			3
Grand Total			51

EXHIBIT 6



Damage Prevention

SPECIAL ATTENTION REVIEW

SEPTEMBER 16, 2013

Damage Ratio Slow to Improve

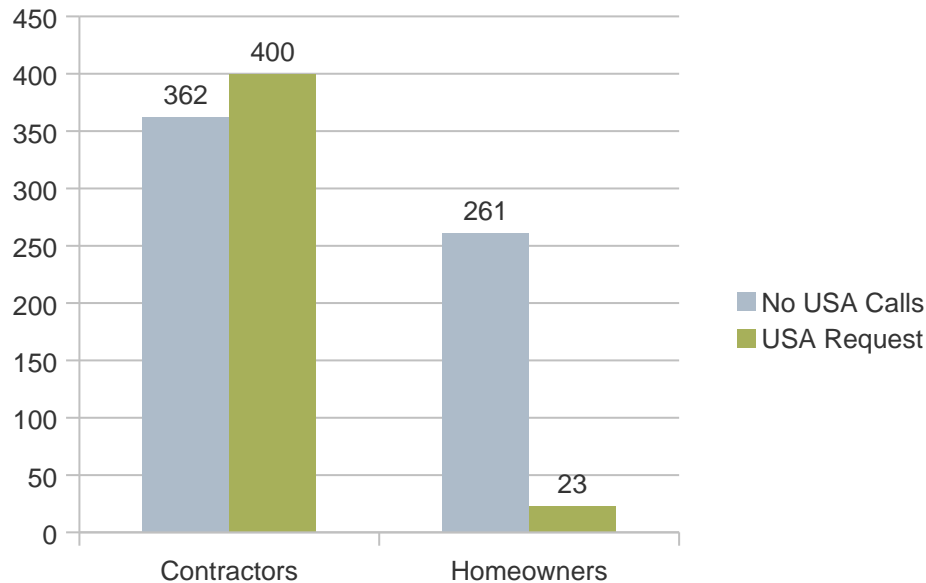
Month		
Actual	Target	Score
4.54	3.89	0.00

YTD		
Actual	Target	Score
4.29	3.89	0.52

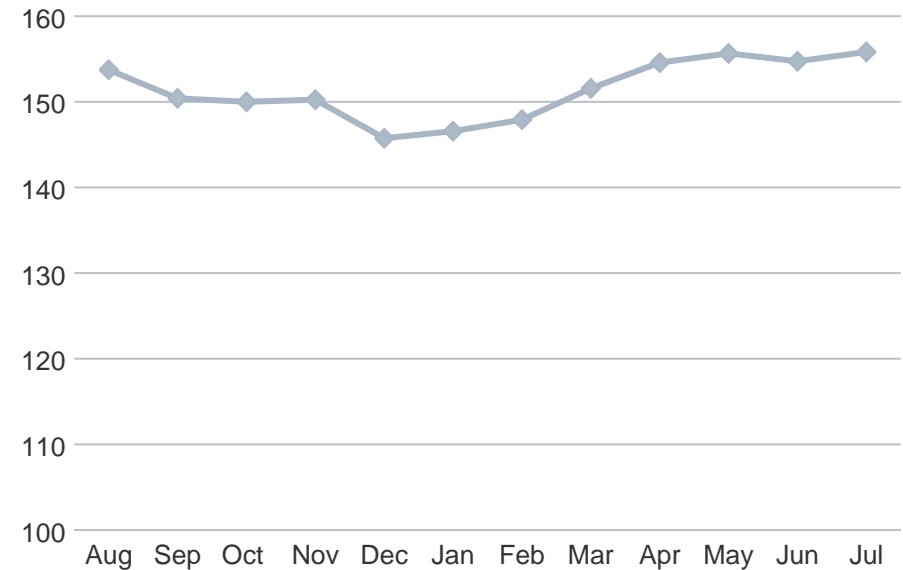
EOY		
Forecast	Target	Score
4.54	3.89	0.00

- Improvement in Damage Ratio minimal.
- Leading cause (“no calls”) continues to average 60% of total damages
- Over 70% of our damages are due to contractor excavation
- 60% of those “no calls” are coming from contractors
- About 20% of dig-ins are excavations by hand

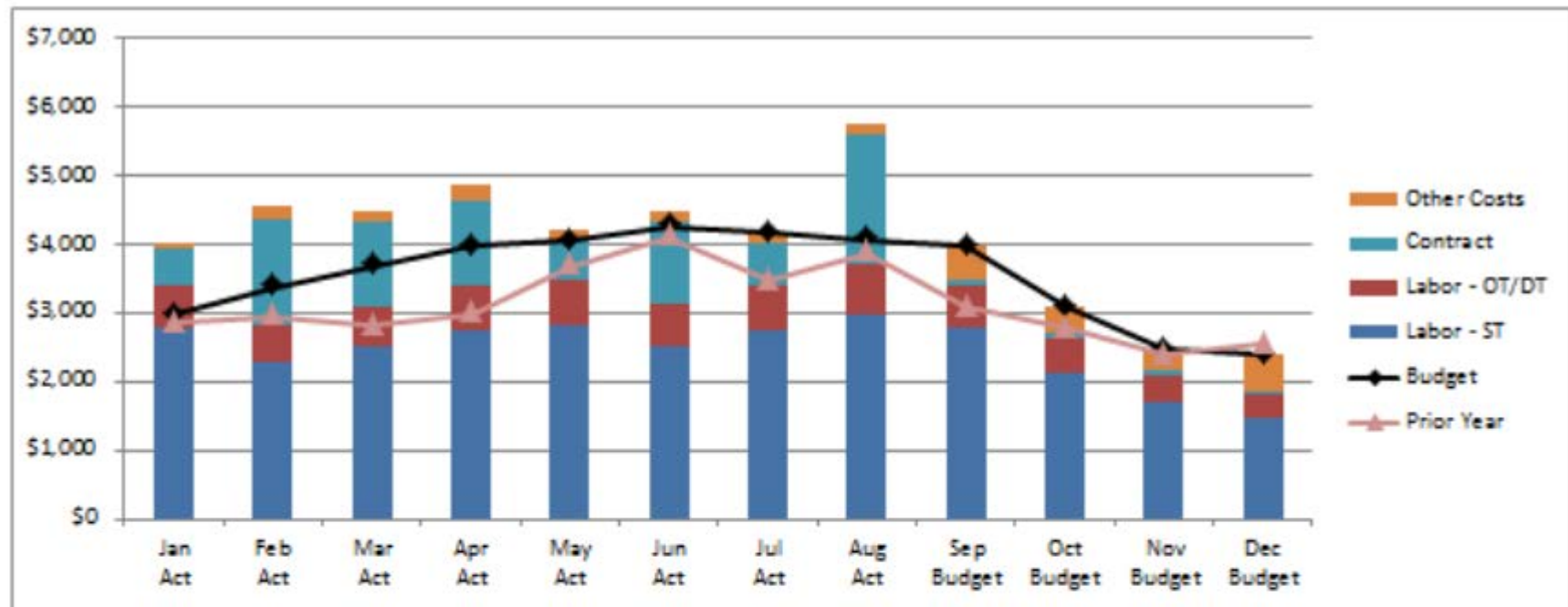
Dig-Ins with USA and No USA by Excavator Type (YTD)



Total Dig-Ins 12-Month Rolling Avg



Financial Results Require Improvement



	YTD			Annual			
	Actual	Budget	Variance	Budget	Forecast	Variance	Run Rate
Distribution							
DF/ Locate & Mark	\$26,355	\$24,604	(\$1,752)	\$33,423	\$37,400	(\$3,977)	\$39,533
DFE Standby	\$1,792	\$835	(\$956)	\$1,259	\$1,400	(\$141)	\$2,687
# Not Assigned	\$1,202	\$759	(\$443)	\$1,140	\$1,400	(\$260)	\$1,803
Total Distribution	\$29,349	\$26,198	(\$3,151)	\$35,821	\$40,200	(\$4,379)	\$44,023
Transmission							
DF/ Locate & Mark	\$1,951	\$1,513	(\$437)	\$2,380	\$2,750	(\$370)	\$2,926
DFE Standby	\$5,149	\$2,738	(\$2,411)	\$4,123	\$5,500	(\$1,377)	\$7,724
Total Transmission	\$7,100	\$4,251	(\$2,849)	\$6,503	\$8,250	(\$1,747)	\$10,650
	\$36,449	\$30,449	(\$6,000)	\$42,324	\$48,450	(\$6,126)	\$54,673

- Efforts to gain support for more specific enforcement legislation has stalled
- Proposed legislation's current state is a request for more data
- Given this, we have conducted many meetings to discuss enforcement with:
 - California State Licensing Board
 - Cal-OSHA
 - CPUC
- We've had significant success in the last 45 days

- **CSLB**

- Filed 11 complaints, with 7 contractors reaching out to us for resolution
- CSLB requested a name of a “repeat offender” to carry to Attorney General for further action
- CSLB mailed newsletter to 85,000 contractors featuring article on Damage Prevention Law

- **Cal/OSHA**

- Filed 1 complaint to Cal/OSHA, and they are issuing fine for “no call”, with further inspection pending
- Cal/OSHA is contemplating a joint Cal/OSHA PG&E press release regarding excavation safety

- **CPUC**

- Met with General Hagan twice, and he is now requesting names of four “repeat offenders” with which the CPUC will pursue enforcement

- Invited 1,000 contractors to first-ever “811 Excavator Conference” in June
- Have scheduled or conducted 7 “excavation awareness” presentations regarding excavation safety and best practices with excavators against which we’ve filed complaint
- One targeted excavator agreed to provide first-person account to be used in a PG&E educational video
- We are pursuing support for “silver shovel” program through California Common Ground Alliance (CGA) for excavators that consistently follow 4216 and have low damage rates

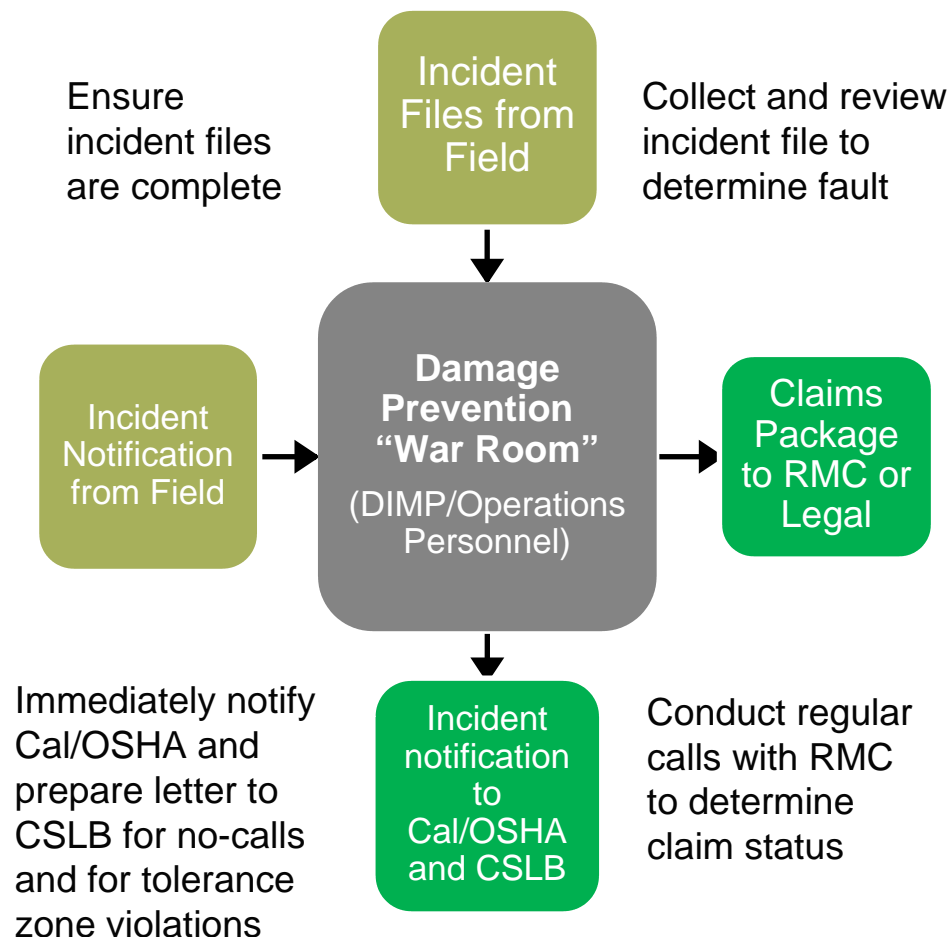
Establishment of a Damage Prevention “War Room”

Engaging Cal/OSHA and California State Licensing Board around 811 “No Calls”

- Making “real-time” outreach to Cal/OSHA when confirmed “no-call damages” occur
- Requesting investigation by licensing board into incidents, with request for enforcement

Streamlining the Claims Process

- Reviewing each submittal in the “War Room” to eliminate delays, improve billing accuracy, identify excavators with multiple claims
- Eliminate non-value-added steps, such as “gas loss calculations for small pipe
- Fast-track high-value damages to Law



Asset Management	Standards & Policies	Operations	Law	Customer Care	Corporate Affairs
Damage Prevention Process					
<p>Deploy Tablets to Locators</p> <p>Improve Construction Mapping Practices</p>	<p>Clarify Work Procedures</p> <p>Improve Field Audits</p> <p>Deploy Caution Tape</p> <p>Improve Training Quality</p> <p>CGA Best Practices Gap Analysis</p> <p>Standardize Tooling</p> <p>Revisit Gas Service Design</p>	<p>Reduce Employee "Churn"</p> <p>Establish Repeat Offender Program</p> <p>Increase Use of "Standby" Personnel</p> <p>Accelerate Claims Processing</p> <p>Develop Locate/Mark Labor Strategy</p> <p>Establish "Damage Prevention War Room"</p>	<p>Standardized Claims Package</p> <p>Accelerate Legal Involvement in Large Claims</p> <p>2013 Recovery Rate improved to 95%</p>	<p>Support Deployment of Enhanced Public Awareness Program</p>	<p>Support Legislation Regarding Violators</p> <p>Pursue "USA Before Permit" Concept</p> <p>Deploy Enhanced Public Awareness Program</p> <p>Engage Cal/OSHA and CSLB Directly over no-call damages and tolerance-zone violations</p>

Note: **Bold** indicates 2013 priority initiatives; **GREEN** indicates complete; **BLUE** indicates in progress;

- **Drive a significant increase in productivity and reduction in unit cost**
 - Working with IBEW on a revised “Line of Progression” for this and most other workers in Gas Operations
 - Assigned strongest supervisor to standardize management of field resources
- **Publish New Damage Prevention Manual**
 - Clarifies and simplifies procedures
 - Provides a great reference document
- **Eliminate entire backlog of damage claims**
 - Revised process “fast-tracks” large claims to legal
 - Establishment of a “Damage Prevention War Room” gives us a two-week turnaround
- **Improve construction practices**
 - Require “post-construction locate” of all plastic pipe
- **Develop plan to identify and locate “un-locatable” facilities**
 - Deploy “un-locatable pipe strike team” so that locators can focus on production work



- Review “standby” program, particularly around GT work (underway)
- Productivity Review for each yard (80% complete)
- Payroll verification (ongoing)
- Ticket count review (complete)
- Insourcing of Locate and Mark Work (75% complete)

EXHIBIT 7

After Hours Ticket Activity - January 2018

Tickets processed by telephone and online between 7:00 pm and 6:00 am on weekdays, and all day on weekends & holidays
24/7 calls began 2/25/2018. Online tickets, including Emergencies, have been allowed 24/7 since April 2016.

		Emergencies				Non-Emergencies				Total AH Tickets	% By Hour
		Contractors	Members	Homeowners	Total Emg.	Contractors	Members	Homeowners	Total Non.		
7-8 pm M-F	Phone	0	0	0	0	7	0	1	8	8	7.1%
	Web	0	8	0	8	300	21	16	337	345	
	Hour Total	0	8	0	8	307	21	17	345	353	
8-9 pm M-F	Phone	0	0	0	0	0	0	0	0	0	5.9%
	Web	21	6	0	27	237	11	20	268	295	
	Hour Total	21	6	0	27	237	11	20	268	295	
9-10 pm M-F	Phone	0	0	0	0	0	0	0	0	0	6.0%
	Web	0	6	0	6	254	21	16	291	297	
	Hour Total	0	6	0	6	254	21	16	291	297	
10-11 pm M-F	Phone	0	0	0	0	0	0	0	0	0	3.4%
	Web	0	5	0	5	141	12	11	164	169	
	Hour Total	0	5	0	5	141	12	11	164	169	
11 p - 12 a M-F	Phone	0	0	0	0	0	0	0	0	0	1.1%
	Web	0	4	0	4	43	4	6	53	57	
	Hour Total	0	4	0	4	43	4	6	53	57	
12-1 am M-F	Phone	0	0	0	0	0	0	0	0	0	0.2%
	Web	0	0	0	0	7	3	2	12	12	
	Hour Total	0	0	0	0	7	3	2	12	12	
1-2 am M-F	Phone	0	0	0	0	0	0	0	0	0	0.1%
	Web	0	2	0	2	0	2	1	3	5	
	Hour Total	0	2	0	2	0	2	1	3	5	
2-3 am M-F	Phone	0	0	0	0	0	0	0	0	0	0.4%
	Web	0	0	0	0	18	0	1	19	19	
	Hour Total	0	0	0	0	18	0	1	19	19	
3-4 am M-F	Phone	0	0	0	0	0	0	0	0	0	0.2%
	Web	0	3	0	3	3	3	2	8	11	
	Hour Total	0	3	0	3	3	3	2	8	11	
4-5 am M-F	Phone	0	0	0	0	0	0	0	0	0	0.8%
	Web	0	1	0	1	31	6	1	38	39	
	Hour Total	0	1	0	1	31	6	1	38	39	
5-6 am M-F	Phone	0	0	0	0	0	0	0	0	0	7.5%
	Web	1	8	0	9	317	45	1	363	372	
	Hour Total	1	8	0	9	317	45	1	363	372	
Weekends & Holidays (24 hr day)	Phone	0	0	0	0	0	0	0	0	0	67.4%
	Web	101	70	0	171	2,668	291	232	3,191	3,362	
	Hour Total	101	70	0	171	2,668	291	232	3,191	3,362	
Total by Phone		0	0	0	0	7	0	1	8	8	
% of All AH by Phone		0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.2%	0.2%	
Total by Web		123	113	0	236	4,019	419	309	4,747	4,983	
% of All AH by Web		2.5%	2.3%	0.0%	4.7%	80.5%	8.4%	6.2%	95.1%	99.8%	
After Hours Totals		123	113	0	236	4,026	419	310	4,755	4,991	
% of Emergencies		52.1%	47.9%	0.0%	100.0%	84.7%	8.8%	6.5%	100.0%	% of Non-Emg.	
% of All After Hours		2.5%	2.3%	0.0%	4.7%	80.7%	8.4%	6.2%	95.3%	100.0%	
Grand Total of all tickets processed in month (all hours of all days):						96,141	% of Grand Total procesed After Hours:			5.19%	

After Hours Ticket Activity - February 2018

Tickets processed by telephone and online between 7:00 pm and 6:00 am on weekdays, and all day on weekends & holidays
24/7 calls began 2/25/2018. Online tickets, including Emergencies, have been allowed 24/7 since April 2016.

		Emergencies				Non-Emergencies				Total AH Tickets	% By Hour
		Contractors	Members	Homeowners	Total Emg.	Contractors	Members	Homeowners	Total Non.		
7-8 pm M-F	Phone	1	0	0	1	9	1	6	16	17	10.5%
	Web	0	10	0	10	386	18	38	442	452	
	Hour Total	1	10	0	11	395	19	44	458	469	
8-9 pm M-F	Phone	0	1	0	1	11	0	4	15	16	9.2%
	Web	0	11	0	11	349	15	21	385	396	
	Hour Total	0	12	0	12	360	15	25	400	412	
9-10 pm M-F	Phone	0	1	0	1	2	0	0	2	3	6.8%
	Web	1	5	0	6	261	17	20	298	304	
	Hour Total	1	6	0	7	263	17	20	300	307	
10-11 pm M-F	Phone	0	0	0	0	2	0	2	4	4	3.8%
	Web	0	1	0	1	148	5	11	164	165	
	Hour Total	0	1	0	1	150	5	13	168	169	
11 p - 12 a M-F	Phone	0	0	0	0	0	0	1	1	1	2.4%
	Web	0	3	0	3	94	4	4	102	105	
	Hour Total	0	3	0	3	94	4	5	103	106	
12-1 am M-F	Phone	0	1	0	1	0	0	0	0	1	1.0%
	Web	1	0	0	1	36	2	4	42	43	
	Hour Total	1	1	0	2	36	2	4	42	44	
1-2 am M-F	Phone	0	0	0	0	0	0	0	0	0	0.5%
	Web	0	6	0	6	11	3	1	15	21	
	Hour Total	0	6	0	6	11	3	1	15	21	
2-3 am M-F	Phone	0	0	0	0	0	0	0	0	0	0.1%
	Web	0	1	0	1	0	1	1	2	3	
	Hour Total	0	1	0	1	0	1	1	2	3	
3-4 am M-F	Phone	0	0	0	0	0	0	0	0	0	0.1%
	Web	0	0	0	0	3	1	1	5	5	
	Hour Total	0	0	0	0	3	1	1	5	5	
4-5 am M-F	Phone	0	0	0	0	0	0	0	0	0	0.6%
	Web	0	2	0	2	21	6	0	27	29	
	Hour Total	0	2	0	2	21	6	0	27	29	
5-6 am M-F	Phone	0	0	0	0	5	0	0	5	5	6.0%
	Web	1	1	0	2	227	33	4	264	266	
	Hour Total	1	1	0	2	232	33	4	269	271	
Weekends & Holidays (24 hr day)	Phone	0	0	0	0	11	2	36	49	49	59.0%
	Web	7	44	0	51	1,972	315	260	2,547	2,598	
	Hour Total	7	44	0	51	1,983	317	296	2,596	2,647	
Total by Phone		1	3	0	4	40	3	49	92	96	
% of All AH by Phone		0.0%	0.1%	0.0%	0.1%	0.9%	0.1%	1.1%	2.1%	2.1%	
Total by Web		10	84	0	94	3,508	420	365	4,293	4,387	
% of All AH by Web		0.2%	1.9%	0.0%	2.1%	78.3%	9.4%	8.1%	95.8%	97.9%	
After Hours Totals		11	87	0	98	3,548	423	414	4,385	4,483	
% of Emergencies		11.2%	88.8%	0.0%	100.0%	80.9%	9.6%	9.4%	100.0%	% of Non-Emg.	
% of All After Hours		0.2%	1.9%	0.0%	2.2%	79.1%	9.4%	9.2%	97.8%	100.0%	
Grand Total of all tickets processed in month (all hours of all days):						90,183	% of Grand Total procesed After Hours:				4.97%

After Hours Ticket Activity - March 2018

Tickets processed by telephone and online between 7:00 pm and 6:00 am on weekdays, and all day on weekends & holidays
24/7 calls began 2/25/2018. Online tickets, including Emergencies, have been allowed 24/7 since April 2016.

		Emergencies				Non-Emergencies				Total AH Tickets	% By Hour
		Contractors	Members	Homeowners	Total Emg.	Contractors	Members	Homeowners	Total Non.		
7-8 pm M-F	Phone	3	6	1	10	93	8	44	145	155	15.0%
	Web	0	9	0	9	360	34	41	435	444	
	Hour Total	3	15	1	19	453	42	85	580	599	
8-9 pm M-F	Phone	0	4	0	4	30	3	27	60	64	12.1%
	Web	1	9	0	10	358	25	28	411	421	
	Hour Total	1	13	0	14	388	28	55	471	485	
9-10 pm M-F	Phone	0	4	0	4	23	1	6	30	34	7.2%
	Web	0	9	0	9	200	27	19	246	255	
	Hour Total	0	13	0	13	223	28	25	276	289	
10-11 pm M-F	Phone	1	3	0	4	16	0	4	20	24	5.7%
	Web	0	4	0	4	172	10	20	202	206	
	Hour Total	1	7	0	8	188	10	24	222	230	
11 p - 12 a M-F	Phone	0	3	0	3	3	1	3	7	10	2.3%
	Web	0	3	0	3	66	6	7	79	82	
	Hour Total	0	6	0	6	69	7	10	86	92	
12-1 am M-F	Phone	0	0	0	0	2	0	1	3	3	0.9%
	Web	0	2	0	2	21	2	8	31	33	
	Hour Total	0	2	0	2	23	2	9	34	36	
1-2 am M-F	Phone	1	2	0	3	0	0	0	0	3	0.4%
	Web	0	1	0	1	8	1	2	11	12	
	Hour Total	1	3	0	4	8	1	2	11	15	
2-3 am M-F	Phone	0	1	0	1	0	0	0	0	1	0.3%
	Web	0	2	0	2	6	2	2	10	12	
	Hour Total	0	3	0	3	6	2	2	10	13	
3-4 am M-F	Phone	0	0	0	0	0	0	0	0	0	0.2%
	Web	0	1	0	1	4	0	3	7	8	
	Hour Total	0	1	0	1	4	0	3	7	8	
4-5 am M-F	Phone	1	2	0	3	4	0	2	6	9	0.9%
	Web	0	2	0	2	21	3	2	26	28	
	Hour Total	1	4	0	5	25	3	4	32	37	
5-6 am M-F	Phone	1	2	0	3	26	10	1	37	40	8.0%
	Web	1	1	0	2	238	36	3	277	279	
	Hour Total	2	3	0	5	264	46	4	314	319	
Weekends & Holidays (24 hr day)	Phone	31	34	3	68	211	31	248	490	558	47.0%
	Web	4	50	0	54	897	188	186	1,271	1,325	
	Hour Total	35	84	3	122	1,108	219	434	1,761	1,883	
Total by Phone		38	61	4	103	408	54	336	798	901	
% of All AH by Phone		0.9%	1.5%	0.1%	2.6%	10.2%	1.3%	8.4%	19.9%	22.5%	
Total by Web		6	93	0	99	2,351	334	321	3,006	3,105	
% of All AH by Web		0.1%	2.3%	0.0%	2.5%	58.7%	8.3%	8.0%	75.0%	77.5%	
After Hours Totals		44	154	4	202	2,759	388	657	3,804	4,006	
% of Emergencies		21.8%	76.2%	2.0%	100.0%	72.5%	10.2%	17.3%	100.0%	% of Non-Emg.	
% of All After Hours		1.1%	3.8%	0.1%	5.0%	68.9%	9.7%	16.4%	95.0%	100.0%	
Grand Total of all tickets processed in month (all hours of all days):						98,348	% of Grand Total procesed After Hours:				4.07%

After Hours Ticket Activity - April 2018

Tickets processed by telephone and online between 7:00 pm and 6:00 am on weekdays, and all day on weekends & holidays
24/7 calls began 2/25/2018. Online tickets, including Emergencies, have been allowed 24/7 since April 2016.

		Emergencies				Non-Emergencies				Total AH Tickets	% By Hour
		Contractors	Members	Homeowners	Total Emg.	Contractors	Members	Homeowners	Total Non.		
7-8 pm M-F	Phone	2	11	0	13	134	1	48	183	196	13.7%
	Web	0	6	0	6	389	25	65	479	485	
	Hour Total	2	17	0	19	523	26	113	662	681	
8-9 pm M-F	Phone	6	4	1	11	67	3	32	102	113	10.6%
	Web	0	5	0	5	336	25	47	408	413	
	Hour Total	6	9	1	16	403	28	79	510	526	
9-10 pm M-F	Phone	4	6	0	10	53	0	12	65	75	10.0%
	Web	1	3	0	4	356	21	40	417	421	
	Hour Total	5	9	0	14	409	21	52	482	496	
10-11 pm M-F	Phone	0	5	0	5	9	0	4	13	18	6.1%
	Web	1	3	0	4	242	16	21	279	283	
	Hour Total	1	8	0	9	251	16	25	292	301	
11 p - 12 a M-F	Phone	1	4	0	5	6	1	1	8	13	1.7%
	Web	0	3	0	3	48	6	14	68	71	
	Hour Total	1	7	0	8	54	7	15	76	84	
12-1 am M-F	Phone	2	2	0	4	5	1	2	8	12	0.9%
	Web	0	2	0	2	17	4	8	29	31	
	Hour Total	2	4	0	6	22	5	10	37	43	
1-2 am M-F	Phone	0	0	0	0	4	1	1	6	6	0.5%
	Web	0	2	0	2	12	2	4	18	20	
	Hour Total	0	2	0	2	16	3	5	24	26	
2-3 am M-F	Phone	0	3	0	3	3	0	0	3	6	0.2%
	Web	0	1	0	1	1	3	0	4	5	
	Hour Total	0	4	0	4	4	3	0	7	11	
3-4 am M-F	Phone	2	1	0	3	0	0	1	1	4	0.3%
	Web	0	0	0	0	4	3	2	9	9	
	Hour Total	2	1	0	3	4	3	3	10	13	
4-5 am M-F	Phone	0	1	0	1	8	0	3	11	12	1.3%
	Web	0	2	0	2	49	1	0	50	52	
	Hour Total	0	3	0	3	57	1	3	61	64	
5-6 am M-F	Phone	7	4	0	11	57	6	2	65	76	7.6%
	Web	0	3	0	3	249	45	7	301	304	
	Hour Total	7	7	0	14	306	51	9	366	380	
Weekends & Holidays (24 hr day)	Phone	33	47	4	84	279	26	268	573	657	47.2%
	Web	6	43	0	49	1,092	273	273	1,638	1,687	
	Hour Total	39	90	4	133	1,371	299	541	2,211	2,344	
Total by Phone		57	88	5	150	625	39	374	1,038	1,188	
% of All AH by Phone		1.1%	1.8%	0.1%	3.0%	12.6%	0.8%	7.5%	20.9%	23.9%	
Total by Web		8	73	0	81	2,795	424	481	3,700	3,781	
% of All AH by Web		0.2%	1.5%	0.0%	1.6%	56.2%	8.5%	9.7%	74.5%	76.1%	
After Hours Totals		65	161	5	231	3,420	463	855	4,738	4,969	
% of Emergencies		28.1%	69.7%	2.2%	100.0%	72.2%	9.8%	18.0%	100.0%	% of Non-Emg.	
% of All After Hours		1.3%	3.2%	0.1%	4.6%	68.8%	9.3%	17.2%	95.4%	100.0%	
Grand Total of all tickets processed in month (all hours of all days):						104,484	% of Grand Total procesed After Hours:				4.76%

After Hours Ticket Activity - May 2018

Tickets processed by telephone and online between 7:00 pm and 6:00 am on weekdays, and all day on weekends & holidays
24/7 calls began 2/25/2018. Online tickets, including Emergencies, have been allowed 24/7 since April 2016.

		Emergencies				Non-Emergencies				Total AH Tickets	% By Hour
		Contractors	Members	Homeowners	Total Emg.	Contractors	Members	Homeowners	Total Non.		
7-8 pm M-F	Phone	10	6	0	16	125	1	46	172	188	12.7%
	Web	1	11	0	12	478	21	42	541	553	
	Hour Total	11	17	0	28	603	22	88	713	741	
8-9 pm M-F	Phone	3	6	0	9	70	1	40	111	120	9.8%
	Web	0	7	0	7	358	38	47	443	450	
	Hour Total	3	13	0	16	428	39	87	554	570	
9-10 pm M-F	Phone	2	5	1	8	62	4	11	77	85	9.2%
	Web	1	2	0	3	397	22	31	450	453	
	Hour Total	3	7	1	11	459	26	42	527	538	
10-11 pm M-F	Phone	2	5	1	8	26	1	6	33	41	5.1%
	Web	1	4	0	5	212	22	19	253	258	
	Hour Total	3	9	1	13	238	23	25	286	299	
11 p - 12 a M-F	Phone	2	1	0	3	16	1	0	17	20	3.6%
	Web	0	1	0	1	165	12	10	187	188	
	Hour Total	2	2	0	4	181	13	10	204	208	
12-1 am M-F	Phone	2	2	0	4	3	0	2	5	9	0.8%
	Web	0	5	0	5	28	2	4	34	39	
	Hour Total	2	7	0	9	31	2	6	39	48	
1-2 am M-F	Phone	0	1	0	1	1	0	0	1	2	0.3%
	Web	0	2	0	2	1	6	6	13	15	
	Hour Total	0	3	0	3	2	6	6	14	17	
2-3 am M-F	Phone	0	1	0	1	1	0	3	4	5	0.3%
	Web	0	2	0	2	8	1	1	10	12	
	Hour Total	0	3	0	3	9	1	4	14	17	
3-4 am M-F	Phone	0	2	0	2	1	1	0	2	4	0.8%
	Web	0	1	0	1	35	0	4	39	40	
	Hour Total	0	3	0	3	36	1	4	41	44	
4-5 am M-F	Phone	0	2	0	2	14	1	2	17	19	1.2%
	Web	0	1	0	1	42	3	3	48	49	
	Hour Total	0	3	0	3	56	4	5	65	68	
5-6 am M-F	Phone	3	4	0	7	55	10	2	67	74	10.0%
	Web	0	3	0	3	444	57	8	509	512	
	Hour Total	3	7	0	10	499	67	10	576	586	
Weekends & Holidays (24 hr day)	Phone	37	52	3	92	317	34	273	624	716	46.2%
	Web	1	43	0	44	1,510	187	241	1,938	1,982	
	Hour Total	38	95	3	136	1,827	221	514	2,562	2,698	
Total by Phone		61	87	5	153	691	54	385	1,130	1,283	
% of All AH by Phone		1.0%	1.5%	0.1%	2.6%	11.8%	0.9%	6.6%	19.4%	22.0%	
Total by Web		4	82	0	86	3,678	371	416	4,465	4,551	
% of All AH by Web		0.1%	1.4%	0.0%	1.5%	63.0%	6.4%	7.1%	76.5%	78.0%	
After Hours Totals		65	169	5	239	4,369	425	801	5,595	5,834	
% of Emergencies		27.2%	70.7%	2.1%	100.0%	78.1%	7.6%	14.3%	100.0%	% of Non-Emg.	
% of All After Hours		1.1%	2.9%	0.1%	4.1%	74.9%	7.3%	13.7%	95.9%	100.0%	
Grand Total of all tickets processed in month (all hours of all days):						112,380	% of Grand Total procesed After Hours:				5.19%

After Hours Ticket Activity - June 2018

Tickets processed by telephone and online between 7:00 pm and 6:00 am on weekdays, and all day on weekends & holidays
24/7 calls began 2/25/2018. Online tickets, including Emergencies, have been allowed 24/7 since April 2016.

		Emergencies				Non-Emergencies				Total AH Tickets	% By Hour
		Contractors	Members	Homeowners	Total Emg.	Contractors	Members	Homeowners	Total Non.		
7-8 pm M-F	Phone	6	13	0	19	112	12	48	172	191	10.9%
	Web	1	10	0	11	422	32	38	492	503	
	Hour Total	7	23	0	30	534	44	86	664	694	
8-9 pm M-F	Phone	0	14	0	14	66	7	27	100	114	7.2%
	Web	2	6	0	8	280	25	29	334	342	
	Hour Total	2	20	0	22	346	32	56	434	456	
9-10 pm M-F	Phone	3	10	0	13	44	0	28	72	85	7.7%
	Web	4	6	0	10	335	30	30	395	405	
	Hour Total	7	16	0	23	379	30	58	467	490	
10-11 pm M-F	Phone	3	10	0	13	40	2	5	47	60	6.6%
	Web	1	3	0	4	322	17	20	359	363	
	Hour Total	4	13	0	17	362	19	25	406	423	
11 p - 12 a M-F	Phone	0	5	0	5	24	0	3	27	32	3.4%
	Web	1	4	0	5	162	6	13	181	186	
	Hour Total	1	9	0	10	186	6	16	208	218	
12-1 am M-F	Phone	0	3	0	3	5	0	1	6	9	1.1%
	Web	0	3	0	3	44	5	7	56	59	
	Hour Total	0	6	0	6	49	5	8	62	68	
1-2 am M-F	Phone	0	5	0	5	12	3	0	15	20	1.0%
	Web	0	4	0	4	30	6	4	40	44	
	Hour Total	0	9	0	9	42	9	4	55	64	
2-3 am M-F	Phone	0	4	0	4	2	0	0	2	6	0.4%
	Web	0	1	0	1	18	0	0	18	19	
	Hour Total	0	5	0	5	20	0	0	20	25	
3-4 am M-F	Phone	0	2	0	2	2	1	0	3	5	0.2%
	Web	0	1	0	1	7	0	1	8	9	
	Hour Total	0	3	0	3	9	1	1	11	14	
4-5 am M-F	Phone	1	4	0	5	14	2	0	16	21	1.3%
	Web	1	2	0	3	55	1	3	59	62	
	Hour Total	2	6	0	8	69	3	3	75	83	
5-6 am M-F	Phone	5	3	0	8	71	8	2	81	89	10.8%
	Web	1	2	0	3	524	66	6	596	599	
	Hour Total	6	5	0	11	595	74	8	677	688	
Weekends & Holidays (24 hr day)	Phone	37	96	5	138	367	86	269	722	860	49.3%
	Web	11	78	0	89	1,523	401	265	2,189	2,278	
	Hour Total	48	174	5	227	1,890	487	534	2,911	3,138	
Total by Phone		55	169	5	229	759	121	383	1,263	1,492	
% of All AH by Phone		0.9%	2.7%	0.1%	3.6%	11.9%	1.9%	6.0%	19.9%	23.5%	
Total by Web		22	120	0	142	3,722	589	416	4,727	4,869	
% of All AH by Web		0.3%	1.9%	0.0%	2.2%	58.5%	9.3%	6.5%	74.3%	76.5%	
After Hours Totals		77	289	5	371	4,481	710	799	5,990	6,361	
% of Emergencies		20.8%	77.9%	1.3%	100.0%	74.8%	11.9%	13.3%	100.0%	% of Non-Emg.	
% of All After Hours		1.2%	4.5%	0.1%	5.8%	70.4%	11.2%	12.6%	94.2%	100.0%	
Grand Total of all tickets processed in month (all hours of all days):						107,979	% of Grand Total procesed After Hours:				5.89%

After Hours Ticket Activity - July 2018

Tickets processed by telephone and online between 7:00 pm and 6:00 am on weekdays, and all day on weekends & holidays
24/7 calls began 2/25/2018. Online tickets, including Emergencies, have been allowed 24/7 since April 2016.

		Emergencies				Non-Emergencies				Total AH Tickets	% By Hour
		Contractors	Members	Homeowners	Total Emg.	Contractors	Members	Homeowners	Total Non.		
7-8 pm M-F	Phone	4	20	0	24	405	46	43	494	518	10.5%
	Web	3	4	0	7	224	15	12	251	258	
	Hour Total	7	24	0	31	629	61	55	745	776	
8-9 pm M-F	Phone	6	9	0	15	296	13	43	352	367	7.7%
	Web	2	6	0	8	154	12	32	198	206	
	Hour Total	8	15	0	23	450	25	75	550	573	
9-10 pm M-F	Phone	1	2	0	3	218	12	16	246	249	5.8%
	Web	3	9	0	12	138	14	18	170	182	
	Hour Total	4	11	0	15	356	26	34	416	431	
10-11 pm M-F	Phone	0	15	0	15	83	11	17	111	126	3.0%
	Web	1	9	0	10	71	10	6	87	97	
	Hour Total	1	24	0	25	154	21	23	198	223	
11 p - 12 a M-F	Phone	0	12	0	12	126	3	7	136	148	2.8%
	Web	1	7	0	8	46	1	4	51	59	
	Hour Total	1	19	0	20	172	4	11	187	207	
12-1 am M-F	Phone	0	7	0	7	44	2	3	49	56	1.1%
	Web	0	1	0	1	15	5	1	21	22	
	Hour Total	0	8	0	8	59	7	4	70	78	
1-2 am M-F	Phone	0	6	0	6	7	2	1	10	16	0.4%
	Web	1	4	0	5	10	1	1	12	17	
	Hour Total	1	10	0	11	17	3	2	22	33	
2-3 am M-F	Phone	0	10	0	10	3	4	4	11	21	0.3%
	Web	0	1	0	1	1	0	0	1	2	
	Hour Total	0	11	0	11	4	4	4	12	23	
3-4 am M-F	Phone	1	8	0	9	17	1	0	18	27	0.4%
	Web	0	0	0	0	0	0	0	0	0	
	Hour Total	1	8	0	9	17	1	0	18	27	
4-5 am M-F	Phone	2	6	0	8	60	4	3	67	75	1.5%
	Web	0	3	0	3	34	1	0	35	38	
	Hour Total	2	9	0	11	94	5	3	102	113	
5-6 am M-F	Phone	3	4	0	7	490	33	4	527	534	11.8%
	Web	4	2	0	6	314	17	3	334	340	
	Hour Total	7	6	0	13	804	50	7	861	874	
Weekends & Holidays (24 hr day)	Phone	31	154	2	187	1,314	236	208	1,758	1,945	54.6%
	Web	26	176	5	207	1,332	257	304	1,893	2,100	
	Hour Total	57	330	7	394	2,646	493	512	3,651	4,045	
Total by Phone		48	253	2	303	3,063	367	349	3,779	4,082	
% of All AH by Phone		0.6%	3.4%	0.0%	4.1%	41.4%	5.0%	4.7%	51.0%	55.1%	
Total by Web		41	222	5	268	2,339	333	381	3,053	3,321	
% of All AH by Web		0.6%	3.0%	0.1%	3.6%	31.6%	4.5%	5.1%	41.2%	44.9%	
After Hours Totals		89	475	7	571	5,402	700	730	6,832	7,403	
% of Emergencies		15.6%	83.2%	1.2%	100.0%	79.1%	10.2%	10.7%	100.0%	% of Non-Emg.	
% of All After Hours		1.2%	6.4%	0.1%	7.7%	73.0%	9.5%	9.9%	92.3%	100.0%	
Grand Total of all tickets processed in month (all hours of all days):						113,372	% of Grand Total procesed After Hours:				6.53%

After Hours Ticket Activity - August 2018

Tickets processed by telephone and online between 7:00 pm and 6:00 am on weekdays, and all day on weekends & holidays
24/7 calls began 2/25/2018. Online tickets, including Emergencies, have been allowed 24/7 since April 2016.

		Emergencies				Non-Emergencies				Total AH Tickets	% By Hour
		Contractors	Members	Homeowners	Total Emg.	Contractors	Members	Homeowners	Total Non.		
7-8 pm M-F	Phone	8	17	0	25	148	9	51	208	233	10.7%
	Web	0	5	0	5	458	38	50	546	551	
	Hour Total	8	22	0	30	606	47	101	754	784	
8-9 pm M-F	Phone	0	12	1	13	79	9	30	118	131	9.1%
	Web	2	6	0	8	426	55	42	523	531	
	Hour Total	2	18	1	21	505	64	72	641	662	
9-10 pm M-F	Phone	3	13	1	17	68	1	17	86	103	8.0%
	Web	0	1	0	1	417	27	33	477	478	
	Hour Total	3	14	1	18	485	28	50	563	581	
10-11 pm M-F	Phone	4	10	0	14	27	1	7	35	49	4.1%
	Web	0	6	0	6	212	10	20	242	248	
	Hour Total	4	16	0	20	239	11	27	277	297	
11 p - 12 a M-F	Phone	0	4	0	4	16	0	3	19	23	4.1%
	Web	0	3	0	3	256	10	7	273	276	
	Hour Total	0	7	0	7	272	10	10	292	299	
12-1 am M-F	Phone	2	3	0	5	4	0	1	5	10	0.6%
	Web	0	7	0	7	20	2	7	29	36	
	Hour Total	2	10	0	12	24	2	8	34	46	
1-2 am M-F	Phone	0	1	0	1	1	0	0	1	2	0.2%
	Web	0	3	0	3	9	1	3	13	16	
	Hour Total	0	4	0	4	10	1	3	14	18	
2-3 am M-F	Phone	0	4	0	4	3	0	0	3	7	0.3%
	Web	0	4	0	4	7	3	0	10	14	
	Hour Total	0	8	0	8	10	3	0	13	21	
3-4 am M-F	Phone	0	3	0	3	3	0	2	5	8	0.5%
	Web	0	4	0	4	19	3	2	24	28	
	Hour Total	0	7	0	7	22	3	4	29	36	
4-5 am M-F	Phone	2	3	0	5	17	0	0	17	22	1.4%
	Web	1	1	0	2	62	13	5	80	82	
	Hour Total	3	4	0	7	79	13	5	97	104	
5-6 am M-F	Phone	7	4	0	11	63	8	5	76	87	13.2%
	Web	0	4	0	4	780	90	4	874	878	
	Hour Total	7	8	0	15	843	98	9	950	965	
Weekends & Holidays (24 hr day)	Phone	65	105	3	173	295	60	196	551	724	47.8%
	Web	1	78	0	79	2,149	336	207	2,692	2,771	
	Hour Total	66	183	3	252	2,444	396	403	3,243	3,495	
Total by Phone		91	179	5	275	724	88	312	1,124	1,399	
% of All AH by Phone		1.2%	2.4%	0.1%	3.8%	9.9%	1.2%	4.3%	15.4%	19.1%	
Total by Web		4	122	0	126	4,815	588	380	5,783	5,909	
% of All AH by Web		0.1%	1.7%	0.0%	1.7%	65.9%	8.0%	5.2%	79.1%	80.9%	
After Hours Totals		95	301	5	401	5,539	676	692	6,907	7,308	
% of Emergencies		23.7%	75.1%	1.2%	100.0%	80.2%	9.8%	10.0%	100.0%	% of Non-Emg.	
% of All After Hours		1.3%	4.1%	0.1%	5.5%	75.8%	9.3%	9.5%	94.5%	100.0%	
Grand Total of all tickets processed in month (all hours of all days):						125,630	% of Grand Total procesed After Hours:				5.82%

After Hours Ticket Activity - September 2018

Tickets processed by telephone and online between 7:00 pm and 6:00 am on weekdays, and all day on weekends & holidays
24/7 calls began 2/25/2018. Online tickets, including Emergencies, have been allowed 24/7 since April 2016.

		Emergencies				Non-Emergencies				Total AH Tickets	% By Hour
		Contractors	Members	Homeowners	Total Emg.	Contractors	Members	Homeowners	Total Non.		
7-8 pm M-F	Phone	8	11	0	19	98	12	33	143	162	9.9%
	Web	6	6	0	12	393	69	43	505	517	
	Hour Total	14	17	0	31	491	81	76	648	679	
8-9 pm M-F	Phone	1	11	0	12	73	4	12	89	101	6.8%
	Web	1	3	0	4	281	50	27	358	362	
	Hour Total	2	14	0	16	354	54	39	447	463	
9-10 pm M-F	Phone	3	7	0	10	25	1	10	36	46	4.9%
	Web	0	7	0	7	239	23	22	284	291	
	Hour Total	3	14	0	17	264	24	32	320	337	
10-11 pm M-F	Phone	0	4	0	4	21	0	4	25	29	3.3%
	Web	0	3	0	3	164	11	18	193	196	
	Hour Total	0	7	0	7	185	11	22	218	225	
11 p - 12 a M-F	Phone	3	4	0	7	29	3	6	38	45	2.8%
	Web	0	7	0	7	123	13	5	141	148	
	Hour Total	3	11	0	14	152	16	11	179	193	
12-1 am M-F	Phone	0	4	0	4	7	0	0	7	11	0.6%
	Web	0	3	0	3	23	2	1	26	29	
	Hour Total	0	7	0	7	30	2	1	33	40	
1-2 am M-F	Phone	1	4	0	5	2	0	1	3	8	0.5%
	Web	0	2	0	2	16	4	2	22	24	
	Hour Total	1	6	0	7	18	4	3	25	32	
2-3 am M-F	Phone	0	3	0	3	1	4	0	5	8	0.3%
	Web	0	3	0	3	0	6	3	9	12	
	Hour Total	0	6	0	6	1	10	3	14	20	
3-4 am M-F	Phone	0	0	0	0	2	0	0	2	2	1.0%
	Web	1	1	0	2	60	3	3	66	68	
	Hour Total	1	1	0	2	62	3	3	68	70	
4-5 am M-F	Phone	1	3	0	4	13	2	0	15	19	3.4%
	Web	0	0	0	0	207	7	0	214	214	
	Hour Total	1	3	0	4	220	9	0	229	233	
5-6 am M-F	Phone	2	3	0	5	52	8	2	62	67	18.9%
	Web	2	2	0	4	1,141	77	5	1,223	1,227	
	Hour Total	4	5	0	9	1,193	85	7	1,285	1,294	
Weekends & Holidays (24 hr day)	Phone	64	171	4	239	424	69	354	847	1,086	47.6%
	Web	3	85	0	88	1,465	345	270	2,080	2,168	
	Hour Total	67	256	4	327	1,889	414	624	2,927	3,254	
Total by Phone		83	225	4	312	747	103	422	1,272	1,584	
% of All AH by Phone		1.2%	3.3%	0.1%	4.6%	10.9%	1.5%	6.2%	18.6%	23.2%	
Total by Web		13	122	0	135	4,112	610	399	5,121	5,256	
% of All AH by Web		0.2%	1.8%	0.0%	2.0%	60.1%	8.9%	5.8%	74.9%	76.8%	
After Hours Totals		96	347	4	447	4,859	713	821	6,393	6,840	
% of Emergencies		21.5%	77.6%	0.9%	100.0%	76.0%	11.2%	12.8%	100.0%	% of Non-Emg.	
% of All After Hours		1.4%	5.1%	0.1%	6.5%	71.0%	10.4%	12.0%	93.5%	100.0%	
Grand Total of all tickets processed in month (all hours of all days):						105,979	%				6.45%

After Hours Ticket Activity - October 2018

Tickets processed by telephone and online between 7:00 pm and 6:00 am on weekdays, and all day on weekends & holidays
24/7 calls began 2/25/2018. Online tickets, including Emergencies, have been allowed 24/7 since April 2016.

		Emergencies				Non-Emergencies				Total AH Tickets	% By Hour
		Contractors	Members	Homeowners	Total Emg.	Contractors	Members	Homeowners	Total Non.		
7-8 pm M-F	Phone	11	13	0	24	88	8	28	124	148	8.5%
	Web	4	11	0	15	348	47	24	419	434	
	Hour Total	15	24	0	39	436	55	52	543	582	
8-9 pm M-F	Phone	2	10	0	12	51	8	16	75	87	8.2%
	Web	0	5	0	5	378	57	34	469	474	
	Hour Total	2	15	0	17	429	65	50	544	561	
9-10 pm M-F	Phone	2	5	0	7	48	3	10	61	68	7.7%
	Web	1	5	0	6	403	29	19	451	457	
	Hour Total	3	10	0	13	451	32	29	512	525	
10-11 pm M-F	Phone	2	10	0	12	30	7	6	43	55	4.6%
	Web	1	8	0	9	221	12	16	249	258	
	Hour Total	3	18	0	21	251	19	22	292	313	
11 p - 12 a M-F	Phone	3	5	0	8	14	6	4	24	32	3.0%
	Web	1	4	0	5	153	8	5	166	171	
	Hour Total	4	9	0	13	167	14	9	190	203	
12-1 am M-F	Phone	0	6	1	7	1	2	0	3	10	0.9%
	Web	0	2	0	2	43	2	6	51	53	
	Hour Total	0	8	1	9	44	4	6	54	63	
1-2 am M-F	Phone	0	2	0	2	1	2	1	4	6	0.3%
	Web	0	1	0	1	13	0	3	16	17	
	Hour Total	0	3	0	3	14	2	4	20	23	
2-3 am M-F	Phone	1	1	0	2	4	5	1	10	12	0.5%
	Web	0	0	0	0	14	6	2	22	22	
	Hour Total	1	1	0	2	18	11	3	32	34	
3-4 am M-F	Phone	0	2	0	2	1	2	0	3	5	0.5%
	Web	0	4	0	4	15	7	0	22	26	
	Hour Total	0	6	0	6	16	9	0	25	31	
4-5 am M-F	Phone	0	2	0	2	16	0	0	16	18	5.3%
	Web	0	5	0	5	338	1	0	339	344	
	Hour Total	0	7	0	7	354	1	0	355	362	
5-6 am M-F	Phone	3	3	0	6	57	16	2	75	81	24.4%
	Web	0	3	0	3	1,527	54	6	1,587	1,590	
	Hour Total	3	6	0	9	1,584	70	8	1,662	1,671	
Weekends & Holidays (24 hr day)	Phone	58	119	3	180	358	55	226	639	819	36.2%
	Web	5	45	0	50	1,186	234	189	1,609	1,659	
	Hour Total	63	164	3	230	1,544	289	415	2,248	2,478	
Total by Phone		82	178	4	264	669	114	294	1,077	1,341	
% of All AH by Phone		1.2%	2.6%	0.1%	3.9%	9.8%	1.7%	4.3%	15.7%	19.6%	
Total by Web		12	93	0	105	4,639	457	304	5,400	5,505	
% of All AH by Web		0.2%	1.4%	0.0%	1.5%	67.8%	6.7%	4.4%	78.9%	80.4%	
After Hours Totals		94	271	4	369	5,308	571	598	6,477	6,846	
% of Emergencies		25.5%	73.4%	1.1%	100.0%	82.0%	8.8%	9.2%	100.0%	% of Non-Emg.	
% of All After Hours		1.4%	4.0%	0.1%	5.4%	77.5%	8.3%	8.7%	94.6%	100.0%	
Grand Total of all tickets processed in month (all hours of all days):						121,962	% of Grand Total procesed After Hours:				5.61%

After Hours Ticket Activity - November 2018

Tickets processed by telephone and online between 7:00 pm and 6:00 am on weekdays, and all day on weekends & holidays
24/7 calls began 2/25/2018. Online tickets, including Emergencies, have been allowed 24/7 since April 2016.

		Emergencies				Non-Emergencies				Total AH Tickets	% By Hour
		Contractors	Members	Homeowners	Total Emg.	Contractors	Members	Homeowners	Total Non.		
7-8 pm M-F	Phone	2	12	0	14	74	6	22	102	116	5.4%
	Web	0	7	0	7	367	26	19	412	419	
	Hour Total	2	19	0	21	441	32	41	514	535	
8-9 pm M-F	Phone	5	13	0	18	49	13	9	71	89	4.2%
	Web	0	9	0	9	265	30	18	313	322	
	Hour Total	5	22	0	27	314	43	27	384	411	
9-10 pm M-F	Phone	1	13	1	15	32	2	5	39	54	3.3%
	Web	0	3	0	3	235	16	19	270	273	
	Hour Total	1	16	1	18	267	18	24	309	327	
10-11 pm M-F	Phone	5	9	0	14	17	2	1	20	34	2.2%
	Web	7	5	0	12	139	20	11	170	182	
	Hour Total	12	14	0	26	156	22	12	190	216	
11 p - 12 a M-F	Phone	1	5	0	6	10	3	0	13	19	1.1%
	Web	5	4	0	9	70	5	6	81	90	
	Hour Total	6	9	0	15	80	8	6	94	109	
12-1 am M-F	Phone	2	3	0	5	2	0	0	2	7	0.3%
	Web	0	3	0	3	17	1	2	20	23	
	Hour Total	2	6	0	8	19	1	2	22	30	
1-2 am M-F	Phone	0	3	0	3	3	0	1	4	7	0.1%
	Web	0	2	0	2	4	0	0	4	6	
	Hour Total	0	5	0	5	7	0	1	8	13	
2-3 am M-F	Phone	0	2	0	2	2	0	0	2	4	0.2%
	Web	0	2	0	2	11	2	0	13	15	
	Hour Total	0	4	0	4	13	2	0	15	19	
3-4 am M-F	Phone	1	3	0	4	5	2	0	7	11	0.2%
	Web	1	3	0	4	2	1	0	3	7	
	Hour Total	2	6	0	8	7	3	0	10	18	
4-5 am M-F	Phone	2	2	0	4	9	1	0	10	14	1.2%
	Web	0	3	0	3	101	0	1	102	105	
	Hour Total	2	5	0	7	110	1	1	112	119	
5-6 am M-F	Phone	2	5	0	7	38	4	2	44	51	15.4%
	Web	1	3	0	4	1,412	46	4	1,462	1,466	
	Hour Total	3	8	0	11	1,450	50	6	1,506	1,517	
Weekends & Holidays (24 hr day)	Phone	80	171	7	258	579	87	325	991	1,249	66.3%
	Web	34	347	0	381	4,061	556	268	4,885	5,266	
	Hour Total	114	518	7	639	4,640	643	593	5,876	6,515	
Total by Phone		101	241	8	350	820	120	365	1,305	1,655	
% of All AH by Phone		1.0%	2.5%	0.1%	3.6%	8.3%	1.2%	3.7%	13.3%	16.8%	
Total by Web		48	391	0	439	6,684	703	348	7,735	8,174	
% of All AH by Web		0.5%	4.0%	0.0%	4.5%	68.0%	7.2%	3.5%	78.7%	83.2%	
After Hours Totals		149	632	8	789	7,504	823	713	9,040	9,829	
% of Emergencies		18.9%	80.1%	1.0%	100.0%	83.0%	9.1%	7.9%	100.0%	% of Non-Emg.	
% of All After Hours		1.5%	6.4%	0.1%	8.0%	76.3%	8.4%	7.3%	92.0%	100.0%	
Grand Total of all tickets processed in month (all hours of all days):						102,415	% of Grand Total procesed After Hours:				9.60%

After Hours Ticket Activity - December 2018

Tickets processed by telephone and online between 7:00 pm and 6:00 am on weekdays, and all day on weekends & holidays
24/7 calls began 2/25/2018. Online tickets, including Emergencies, have been allowed 24/7 since April 2016.

		Emergencies				Non-Emergencies				Total AH Tickets	% By Hour
		Contractors	Members	Homeowners	Total Emg.	Contractors	Members	Homeowners	Total Non.		
7-8 pm M-F	Phone	6	15	1	22	40	10	11	61	83	6.0%
	Web	1	9	0	10	207	31	11	249	259	
	Hour Total	7	24	1	32	247	41	22	310	342	
8-9 pm M-F	Phone	2	14	0	16	34	3	7	44	60	5.8%
	Web	0	4	0	4	218	42	8	268	272	
	Hour Total	2	18	0	20	252	45	15	312	332	
9-10 pm M-F	Phone	1	13	0	14	39	0	6	45	59	4.8%
	Web	0	3	0	3	200	10	6	216	219	
	Hour Total	1	16	0	17	239	10	12	261	278	
10-11 pm M-F	Phone	5	8	0	13	11	2	6	19	32	2.6%
	Web	0	3	0	3	91	13	9	113	116	
	Hour Total	5	11	0	16	102	15	15	132	148	
11 p - 12 a M-F	Phone	1	5	0	6	8	0	2	10	16	1.2%
	Web	0	3	0	3	45	2	2	49	52	
	Hour Total	1	8	0	9	53	2	4	59	68	
12-1 am M-F	Phone	2	1	0	3	4	5	1	10	13	1.6%
	Web	0	5	0	5	65	10	0	75	80	
	Hour Total	2	6	0	8	69	15	1	85	93	
1-2 am M-F	Phone	1	9	0	10	0	0	0	0	10	0.4%
	Web	0	1	0	1	8	3	0	11	12	
	Hour Total	1	10	0	11	8	3	0	11	22	
2-3 am M-F	Phone	0	5	0	5	0	1	1	2	7	0.2%
	Web	0	1	0	1	1	3	1	5	6	
	Hour Total	0	6	0	6	1	4	2	7	13	
3-4 am M-F	Phone	1	2	0	3	4	2	0	6	9	0.3%
	Web	0	0	0	0	5	1	1	7	7	
	Hour Total	1	2	0	3	9	3	1	13	16	
4-5 am M-F	Phone	0	5	0	5	7	1	0	8	13	2.2%
	Web	0	0	0	0	111	1	0	112	112	
	Hour Total	0	5	0	5	118	2	0	120	125	
5-6 am M-F	Phone	6	5	0	11	38	8	1	47	58	25.2%
	Web	0	0	0	0	1,333	52	2	1,387	1,387	
	Hour Total	6	5	0	11	1,371	60	3	1,434	1,445	
Weekends & Holidays (24 hr day)	Phone	65	145	7	217	386	76	158	620	837	49.8%
	Web	16	131	0	147	1,314	435	129	1,878	2,025	
	Hour Total	81	276	7	364	1,700	511	287	2,498	2,862	
Total by Phone		90	227	8	325	571	108	193	872	1,197	
% of All AH by Phone		1.6%	4.0%	0.1%	5.7%	9.9%	1.9%	3.4%	15.2%	20.8%	
Total by Web		17	160	0	177	3,598	603	169	4,370	4,547	
% of All AH by Web		0.3%	2.8%	0.0%	3.1%	62.6%	10.5%	2.9%	76.1%	79.2%	
After Hours Totals		107	387	8	502	4,169	711	362	5,242	5,744	
% of Emergencies		21.3%	77.1%	1.6%	100.0%	79.5%	13.6%	6.9%	100.0%	% of Non-Emg.	
% of All After Hours		1.9%	6.7%	0.1%	8.7%	72.6%	12.4%	6.3%	91.3%	100.0%	
Grand Total of all tickets processed in month (all hours of all days):						89,208	% of Grand Total procesed After Hours:				6.44%

After Hours Ticket Activity - YTD 2018

Tickets processed by telephone and online between 7:00 pm and 6:00 am on weekdays, and all day on weekends & holidays
24/7 calls began 2/25/2018. Online tickets, including Emergencies, have been allowed 24/7 since April 2016.

		Emergencies				Non-Emergencies				Total AH Tickets	% By Hour
		Contractors	Members	Homeowners	Total Emg.	Contractors	Members	Homeowners	Total Non.		
7-8 pm M-F	Phone	61	124	2	187	1,333	114	381	1,828	2,015	9.7%
	Web	16	96	0	112	4,332	377	399	5,108	5,220	
	Hour Total	77	220	2	299	5,665	491	780	6,936	7,235	
8-9 pm M-F	Phone	25	98	2	125	826	64	247	1,137	1,262	7.7%
	Web	29	77	0	106	3,640	385	353	4,378	4,484	
	Hour Total	54	175	2	231	4,466	449	600	5,515	5,746	
9-10 pm M-F	Phone	20	79	3	102	614	24	121	759	861	6.6%
	Web	11	59	0	70	3,435	257	273	3,965	4,035	
	Hour Total	31	138	3	172	4,049	281	394	4,724	4,896	
10-11 pm M-F	Phone	22	79	1	102	282	26	62	370	472	4.0%
	Web	12	54	0	66	2,135	158	182	2,475	2,541	
	Hour Total	34	133	1	168	2,417	184	244	2,845	3,013	
11 p - 12 a M-F	Phone	11	48	0	59	252	18	30	300	359	2.5%
	Web	8	46	0	54	1,271	77	83	1,431	1,485	
	Hour Total	19	94	0	113	1,523	95	113	1,731	1,844	
12-1 am M-F	Phone	10	32	1	43	77	10	11	98	141	0.8%
	Web	1	33	0	34	336	40	50	426	460	
	Hour Total	11	65	1	77	413	50	61	524	601	
1-2 am M-F	Phone	3	33	0	36	31	8	5	44	80	0.4%
	Web	1	30	0	31	122	29	27	178	209	
	Hour Total	4	63	0	67	153	37	32	222	289	
2-3 am M-F	Phone	1	34	0	35	19	14	9	42	77	0.3%
	Web	0	18	0	18	85	27	11	123	141	
	Hour Total	1	52	0	53	104	41	20	165	218	
3-4 am M-F	Phone	5	23	0	28	35	9	3	47	75	0.4%
	Web	2	18	0	20	157	22	19	198	218	
	Hour Total	7	41	0	48	192	31	22	245	293	
4-5 am M-F	Phone	9	30	0	39	162	11	10	183	222	1.8%
	Web	2	22	0	24	1,072	43	15	1,130	1,154	
	Hour Total	11	52	0	63	1,234	54	25	1,313	1,376	
5-6 am M-F	Phone	39	37	0	76	952	111	23	1,086	1,162	13.9%
	Web	11	32	0	43	8,506	618	53	9,177	9,220	
	Hour Total	50	69	0	119	9,458	729	76	10,263	10,382	
Weekends & Holidays (24 hr day)	Phone	501	1,094	41	1,636	4,541	762	2,561	7,864	9,500	51.9%
	Web	215	1,190	5	1,410	21,169	3,818	2,824	27,811	29,221	
	Hour Total	716	2,284	46	3,046	25,710	4,580	5,385	35,675	38,721	
Total by Phone		707	1,711	50	2,468	9,124	1,171	3,463	13,758	16,226	
% of All AH by Phone		0.9%	2.3%	0.1%	3.3%	12.2%	1.6%	4.6%	18.4%	21.7%	
Total by Web		308	1,675	5	1,988	46,260	5,851	4,289	56,400	58,388	
% of All AH by Web		0.4%	2.2%	0.0%	2.7%	62.0%	7.8%	5.7%	75.6%	78.3%	
After Hours Totals		1,015	3,386	55	4,456	55,384	7,022	7,752	70,158	74,614	
% of Emergencies		22.8%	76.0%	1.2%	100.0%	78.9%	10.0%	11.0%	100.0%	% of Non-Emg.	
% of All After Hours		1.4%	4.5%	0.1%	6.0%	74.2%	9.4%	10.4%	94.0%	100.0%	
Grand Total of all tickets processed in month (all hours of all days):						1,268,081	% of Grand Total procesed After Hours:				5.88%

EXHIBIT 8

Board of Directors

The Common Ground Alliance is managed by the association's Board of Directors. Currently, the Board consists of stakeholder directors and at-large directors. The stakeholder directors each represent one of the seventeen CGA stakeholder categories. The Directors are appointed through a process managed by the Board's governance subcommittee. For additional information and Board resources, visit [Board of Directors](#).



Greg Smith

[Chair](#)



Jesus Soto Jr.

[Vice Chair](#)



Josh Hinrichs

[Secretary](#)



Annamarie Gibbs

[Treasurer](#)



Al Cervero

[Director](#)



Randy Douglas

[Director](#)



John W. Fluharty, II

[Director](#)



Bob Freudenthal

[Director](#)



E. Thomas Hicks IV

[Director](#)



Craig R. Hoeflerlin

[Director](#)



Kevin Hopper

[Director](#)



Patti Lama

[Director](#)



Jeffrey F. Moller

Director



Kevin Service

Director



Mike Sullivan

Director



Corey Willson

Director

EXHIBIT 9

UNDERGROUND SERVICE ALERT OF CENTRAL / NORTHERN CALIFORNIA and NEVADA

Minutes of the Annual Board of Directors Meeting

Wednesday April 26th, 2017

Quick Reference:

- 2017/2018 Officers and Stakeholder nominations approved
- Consent Calendar approved

1. Call to order – Vice Chairman Aaron Johnson

Following the Annual Committee Meeting Aaron called the Annual Board of Directors meeting to order.

Board Members present: (* = Tele-Web attendance / Underlined = absent)

Aaron Johnson	Dublin San Ramon Services District
Alvin Broglio	Calaveras Telephone
Andy Wells	Pacific Gas & Electric
Bob Mackey	City of Alameda
Boyd Duchene *	Clark Co Water Reclamation (NV)
Brandon Stokes *	Comcast
<u>Emerald Cabamalan</u>	Sacramento Municipal Utility District
<u>Fred Loeser</u>	City of Oakland
Gil Rivas *	San Jose Water Company
<u>Gary Martin</u>	Alameda Co Wtr
Jack Byrom *	Truckee Meadow Water Authority
Jack Wilbur	San Andreas Sanitary Dist (WUUA)
<u>Jeff Daniels</u>	City of Modesto
Jerry Carnahan	Sacramento County
John Hayden *	East Bay Municipal Utility District
<u>Jonathan Cordaway</u>	City of Antioch
Marshall Johnson *	Pacific Bell / SBC / AT&T
Mike Smuin *	Consolidated Communications
<u>Robert Ward</u>	NV Energy (NV)
Ryan Dove	Southern California Gas
Shawn Kelly	Contra Costa Water
Steve Lima	City of Sacramento
Thomas Georgi *	Las Vegas Valley Wtr
<u>Tim Watts</u>	Frontier
<u>Wes Rigsby</u>	County of Santa Clara

Stakeholder attendance:

Randy Charland *	Utiliquest
Nathan Sarina *	California Public Utility Commission

Member/Guest attendance:

Ann Diamond *	USA South
Anthony Headley	West Valley Construction
<u>Jim Schwilk</u>	USA South
Zoya Veis	HR Options

USA North Staff attendance:

Ryan White / Collin Miyadi / Davin Garcia / Linda Whitley

2. Approval of the January 25th, 2017 Board Meeting minutes as mailed – Aaron Johnson

Aaron asked for a motion to approve the 1/25/2017 Board of Directors Meeting Minutes as mailed. Ryan Dove made a motion to approve the 1/25/2017 Board Meeting Minutes as mailed. Jack Wilbur seconded the motion. The motion passed.

3. Consent Calendar - Aaron Johnson

Aaron asked for a motion to approve the Consent Calendar as sent to the Board. Shawn Kelly made a motion to approve the Consent Calendar as sent to the Board. Jerry Carnahan seconded the motion. The motion passed.

A. Q1 2017 Statistical Summary

<u>SERVICE LEVELS</u>	<u>USA North</u>	<u>CGA BP</u>
Busy Signals	0.01%	1.00%
Speed of Answer	1:15 Sec	30 sec
Abandon Calls	0.07 %	5.00%
Ticket Delivery	0:30 Min	30 Min Regular, 15 Short Notice, 5 Min Emergency

MEMBERSHIP

California Members	1,272 (-1)
Nevada Members	199 (-1)
Stakeholders Members	2 (0)
Sustaining Members	8 (-2)
Total	1,481 (-2 / - 0.1%)

<u>800/811 CALLS</u>	<u>800 (42%)</u>	<u>811 (58%)</u>	<u>Total</u>
Overall	51,098 (-22%)	74,577 (+1%)	125,675 (-9.7%)
California	47,335 (-20%)	66,037 (-5%)	113,372 (-9.7%)
Nevada	3,763 (-36%)	8,540 (+10%)	12,303 (-9.8%)

<u>TICKETS / TRANS.</u>	<u>Tickets</u>	<u>Transmissions</u>	<u>E-Ticket %</u>
Overall	242,484 (+4%)	1,827,631 (-10%)	42.5%
California	212,968 (+3%)	1,604,964 (-10%)	
Nevada	29,516 (+9%)	222,667 (-10%)	

TICKET BY TYPE

Cancellations	Extensions	Follow-ups	New	Renewals	Damaged/Exposed (D/E)	New D/E Tkts 11%
1.35%	27.66%	4.12%	59.11%	7.49%	0.27%	Follow-up D/E Tkts 89%

TICKET BY REMARK YES 10% of Extensions 30% of Follow-ups 18% of Renewals (CA only)

BUSIEST COUNTY California – Santa Clara 25,469 Tickets Nevada - Clark 22,871 Tickets

DESIGN RESEARCHES

Overall 114 (-79.2%) California 99 (87%) Nevada 15 (13%) Researches (Users 98% - Admin 2%)

B. 2017 Q1 2017 YTD Budget Report

<u>YTD Revenue</u>	\$1,377,037.59
<u>YTD Budget Variance</u>	\$102,565.64 (under budget)
<u>YTD Replacement</u>	\$184,703
<u>YTD Emergency</u>	\$397,298
<u>YTD Contingency</u>	\$117,904

4. Officer Nominations – Aaron Johnson

The list of 2017/2018 Officer Nominees recommended by the Nominating Committee was reviewed with the Board:

CHAIRMAN	ANDY WELLS	Pacific Gas & Electric
VICE CHAIRMAN	GIL RIVAS	San Jose Water Company
GENERAL MANAGER	RYAN WHITE	USA North 811
SECRETARY	LINDA WHITLEY	USA North 811
TREASURER	STAN DOUGLAS	Douglas and Kysh L.L.C.

Aaron reviewed Article IV, Section 1 and Section 2 of the Bylaws referring to Officers positions and their election. Aaron asked for a motion to approve the Nominating Committee's Officer Nominations as presented. Jerry Carnahan made a motion to approve the Nominating Committee's recommendation as presented. Shawn Kelly seconded the motion. The motion passed.

Stakeholder Member Nominations – Aaron Johnson

The list of 2017/2018 Stakeholder Member Nominees recommended by the Nominating Committee was reviewed with the Board:

UTILIQUEST	RANDY CHARLAND	CA - Locator
CALIFORNIA PUC	SUNIL SHORI	CA – Public Utilities Commission
WEST VALLEY CONST	ANTHONY HEADLEY	CA - EXCAVATOR

Aaron reviewed Article II, Section 21, (a) of the Bylaws referring to Stakeholders and their appointment by the Board.

Aaron asked for a motion to approve the Nominating Committee's Stakeholder nominations as presented. Jack Wilbur made a motion to approve the Nominating Committee's recommendation as presented. Ryan Dove seconded the motion. All in favor, no opposed, no abstained. The motion passed.

5. Contact Center Benchmarking Report – Andy Wells, PG&E

Andy went over with the Board the Contact Center Benchmarking Report. Ryan has prepared a report that is 85 to 90% complete for the board and will be shared as soon as the report is fully complete. Both Andy and Ryan visited 3 states; Pennsylvania, Virginia, and Texas. All three centers are industry leaders, 24/7, and have aspects of their operation that would help improve operations at USA North 811. Some of the more notable observations was the staffing forecasters which would analyze historical volume and generate predicted staffing levels in advance, non-csr staff level percentage, marketing and education program spending, web ticket entry promotion strategies, board of directors made up of upper level and executive level reps, and use of graveyard staff to handle QA/QC of the center.

Discussion continued regarding web ticket entry percentage and strategies each organization used to reach that level, ticket and transmission cost differences, speed of answer levels, and size of marketing and education staff specifically number of liaisons who's primary task is to educate the public.

6. General Managers Report – Ryan White, General Manger

A. CA Law Changes

- **Continual Excavations (1 year) ticket:** Letter distributed to membership on 3/01/17 notifying them of changes that will become effective on 11/01/17 establishing a "continual excavation" ticket, which is essentially a ticket that is valid for 1 year and defined as "a location where excavation is part of the

normal business activities of that location, including, but not limited to, agricultural operations and flood control facilities”. There will be a new field on the outgoing ticket labeled “1 Year” and will be followed by a “Y” or “N” to designate whether or not the ticket is a continual excavation ticket.

- **Electronic Positive Response through the Contact Center:** Beginning 1/01/18 USA North 811 is required to provide a positive response system that will allow members to respond back to the center with information pertaining to their response to a ticket. Staff is working with NDP as well as Dig Alert to establish a list of approved response codes that will be used by both centers. More information to come as we get further into this process and finalize a list of proposed positive response codes.

B. Changes to the M & E Department

- After 15+ years of service to USA North 811, Education Assistant Patrice Heyer has decided to leave the organization and relocate to Idaho. After assessing our options moving forward, we have determined the best course of action for 2017 was to partner with PG&E as a sponsor of their safe digging events and presentations in California. Marketing & Education Director Collin Miyadi is currently working with PG&E staff members on a plan to retain some of our existing presentations that have already been paid for, as well as pick up other potential presentation opportunities. Collin is also working on a plan of action for our Nevada events; the current plan would involve Collin taking over for Patrice at those presentations. We are thankful to Andy Wells and PG&E for partnering with us and allowing us to continue to provide safe digging events and presentations throughout California in 2017.

C. Board of Directors Web Ticket Entry %

- USA North 811 is looking for more Board Member organizations to make the commitment to web ticket entry in 2017. As staff continues to make a push towards 60% web ticket entry in 2017 we are looking to our Board Members and their organizations to take a greater role in helping us reach that number. If every organization committed to doing at least 50% of their annual tickets online our web ticket entry % would shoot through the roof! If anyone has any questions or would like more information on getting your organization up to speed with web ticket entry please see me after today’s meeting.

D. CGA Video Challenge

- USA North 811 was awarded with the “Most Impactful” video award at this year’s CGA Annual Meeting during the CGA Conference & Expo. Staff worked to create a video that visually expressed the impact 811 can have on everyone’s lives. If you haven’t seen the video yet, you can go to <https://vimeo.com/usanorthmedia/moments> to watch it for yourself.

Discussion continued regarding electronic positive response and the approximate timetable for getting the list of response codes approved. Ryan committed to having the codes finalized and approved in 3 weeks (5/17/17).

Meeting moved to: Other Business - Aaron Johnson

GM Hiring Process Update

Zoya Veis with HR Options gave an update on the GM hiring process. Zoya noted that we initially started with 18 pre-screened applicants, 5 of which were chosen for the initial phone interview round. Out of those 2 were chosen to move forward to the in person interview round. Zoya also noted that in the closed session to follow this meeting the Board of Directors would get a chance to meet each of the final 2 candidates.

7. IT Department Report

Since Last Board Meeting

- Implemented a Super Micro blade center in Concord
- Virtualized all Tier 1 servers in Concord
- Converted recovered Dell servers in Concord to VM hosts for DC
- Completed the build out Data Center (DC) in Sacramento
- Installed and configured Fortinet firewalls and have full site to site VPN connectivity between Concord and Raging Wire Data Center. We brought up connectivity on April 11.
- Made significant progress in the development of a mobile app. We are now waiting on NDP to develop the API's we need and then we can deploy.
- We rolled out the Artificial Intelligence Virtual Assistant on Facebook Messenger in March.

Moving Forward

Coming up we will be moving half of our production servers from Concord to the data center. We will then backup the production servers in Concord to the data center and vice versa. This will allow USA North 811 to have significantly higher availability. Completion is targeted for the end of the 3rd quarter.

Next we plan to move the passive failover part of our phone system to the data center. In case of a disaster we can then bring that system online and have all of our phones re-connect and be back online. Unfortunately AVAYA does not support high availability with an active-active failover. Instead, failover has to be done manually. We plan on doing this migration in the 4th quarter as we start to enter our slow season.

Discussion continued regarding the possibility of doing emergency tickets through an API, and if any other ticket delivery methods are going to be explored in the future. Davin noted at this time we aren't exploring any other delivery methods but that in the future he would be interested in looking into it.

8. Marketing & Education Department Report

February

World Ag Expo – The 3 day event in Tulare, CA had over 100,000 + attendees. We went through 40 pounds of Dirt Flavored Jelly Belly's at our annual booth which is positioned next to the Shell Pipeline 811 NASCAR display. Thank you to Bob Marshall & the Shell Team for fringing out the replica NASCAR to Tulare and for funneling attendees to the USA North 811 Booth.

March

Facebook Messenger Virtual Assistant is now live! We encourage everyone to check it out for yourself.

Go to the USA North 811 Facebook page and send us a message to begin a conversation with the Bot. The Messenger Bot is geared toward providing 811 safety information to Homeowners and DIYer's. <https://www.messenger.com/t/USANORTH811>

CGA Expo & 811 Challenge Video – USA North 811 won “Most Impactful” video and was honored at the CGA Expo Annual Breakfast in Orlando, FL. We have already received many requests to use the video at presentations across the nation. <https://vimeo.com/199404995>

NCAA Basketball Pre-March Madness Tournament sponsorship – USA North 811 sponsored the West Coast Conference Basketball Tournament which was held in Las Vegas, NV. Leading up to the tournament, Gonzaga was ranked #1 and St. Mary's was ranked #16 in the Nation. The partnership resulted in 12 minutes and 44 seconds of National TV Time which added up to a \$3,856,565 media value. The signage was on both sides of the court as well as the LED arms on the hoops. The campaign garnered 14,363,000 impressions.

April

National Safe Digging Month & 811 Hot Air Balloon

April 1st

We partnered with PG&E to kickoff National Safe Digging Month with the 811 Hot Air Balloon at the San Francisco Giant's vs Oakland A's Game. The event garnered a live interview on KTVU with Common Ground Alliance Vice President Khrysanne Kerr. The ratings indicated that 60,988 people were watching which resulted in a \$6,823 media value.

<http://app.criticalmention.com/app/#clip/view/26676118?token=b30c9d95-cdcb-45be-8e60-7715f6173de1>

In addition to the Battle of the Bay game, USA North 811 & PG&E partnered with the Sacramento Republic's Home Opener and hosted the 811 Balloon to a sellout crowd 11,500+ fans. We hosted Senator Hill's chief of staff – Tony Marino. Tony has worked with Ryan White on the last two Assembly Bills and was the driving force on the last 4216 Law change. We also hosted the newly appointed Common Ground Alliance President Sarah Magruder Lyle & Vice President Khrysanne Kerr. We had a handful of media opportunities that fell through due to the wind and the Balloon not being able to leave the ground. Here is a video from both 811 Balloon events in April 1st. <https://vimeo.com/212330148>

April 5th

PG&E secured an 811 Balloon location next to Highway 101 in Corte Madera which is a main artery in Marin County. USA North 811 staff setup the Balloon with the Cox Utility Services crew and tethered it to company vehicles. Thank you to Jim Wickham and the Corte Madera Fire Department for making this event possible.

April 7th - 9th

USA North 811 partnered with Shell Pipeline Company and the Common Ground Alliance for an 811 Balloon event at the Grand Prix of Long Beach. The Balloon was inflated on top of the Aquarium parking garage about the legendary “Dolphin fountain Turn” on the track. Shell organized a live interview with driver Helio Castroneves who promoted National Safe Digging Month & the 811 message. Shell also secured TV visible signage throughout the track that promoted the 811 message.

<https://www.dropbox.com/home?preview=Helio+KCBS.mp4>

April 12th

USA North 811 partnered with the Common Ground Alliance in Las Vegas, NV at *Dig This* next to I-125. *Dig This* is an earth moving machine playground that lets individuals operate backhoes and bulldozers for corporate and family events. Thank you to Southwest Gas for activating and leveraging their media contacts and for sharing the event on their social media outlets. <https://www.digthisvegas.com/>

“Can You Dig It” Game – USA North 811 has partnered with over 10+ Mark-It Madness centers for prizes and promotion for the *Can you Dig It* game during Safe Digging Month. The game educates visitors about the 811 safety message and encourages users to share the game on social media outlets.

<http://safedigging.me/>

Remnant Space magazine Opportunities – Extreme How To – USA North 811 partnered with 13 Mark-It Madness centers for a group ad buy in “Extreme How To” for the months of April and May. 901% of the magazine’s subscribers are Home Owners. In addition to the 2 magazines, the issues will be given out to attendees at the National Hardware Show in Las Vegas on May 9th – 11th. In addition to “Extreme How To”, we also participated in a **Southwest Airlines** group buy for the month of April. 72% of the Southwest Airline readers are homeowners. Both campaigns cost a total of \$617.

Lowes Home Improvement Initiative – North Carolina 811, one of our Mark-It Madness partners, fostered a campaign with Lowes Home Improvement that placed the 811 Safe Digging Partner Decal and the 5 Steps to a safe excavation on over 1.5M tree wraps nationwide.

9. Other Business - Aaron Johnson

A. New Business

Andy Wells proposed to the Board that to speed up the approval of the new GM that the Board authorize him as newly voted in Chairman to negotiate on their behalf. Discussion continued regarding specifically what Andy would be authorized to do, whether or not the bylaws support this action, the amount of time that could be added onto this process by having to go back and forth with the Board for every approval, whether or not the Board would have a final vote, and that the bylaws only require 48 hours’ notice to the Board prior to a meeting. After discussion Andy withdrew his request.

B. Guest comments / questions

No Questions or Comment

C. Adjourn - Next USA North 811 Board of Directors meeting is Wednesday July 26th, 2017 at 10:00 am at the USA North 811 Center.

With no further business to come before the Board, Aaron Johnson asked for a motion to adjourn the meeting. Steve Lima made a motion to adjourn the meeting. Ryan Dove seconded the motion. The motion passed and the meeting was adjourned.

EXHIBIT 10



Best Practices 15.0

The Definitive Guide
for Underground
Safety and Damage
Prevention

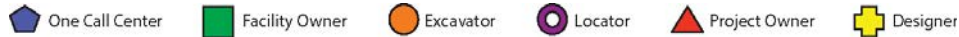


Published March 2018



CHAPTER 3

One Call Center



3–1: Proactive Public Awareness, Education, and Damage Prevention Activities



Practice Statement: The one call center has a documented and proactive public awareness, education, and damage prevention program.

Practice Description: The one call center seeks opportunities to promote the need to “Call Before You Dig,” to enhance awareness of responsibilities to safeguard workers and the public and protect the integrity of the buried infrastructure, to foster a cooperative approach between the owners of buried facilities and the digging community toward the prevention of damage to buried facilities, and to promote the service it provides. Typical call center activities include the following:

- Promotional items
- Media advertising
- Participation at safety meetings
- Seminars and trade shows
- Contractor awareness programs
- Distribution of education material describing how the one call system works
- Maintaining a database of active members of the local digging community
- Mediating and rationalizing the expectations of both the facility owners/operators and the digging community
- Participation in local damage prevention or facility location and coordination committees

References:

- One Call Systems International Voluntary Recognition Program
- Existing operating practices from various states’ one call centers
- OCSI Resource Guide 2009 (<http://goo.gl/kplDT>)
- 49 CFR Part 192
- 49 CFR Part 198
- National Transportation Safety Board (NTSB) Safety Study (NTSB/SS-97/01; PB97-917003)

3–2: Specifically Defined Geopolitical Service Area with No Overlap



Practice Statement: The one call centers serving a specifically defined geopolitical area are structured so that an excavator need only make one call, and a facility owner/operator need only belong to a single one call center.

Practice Description: One call programs are designed to promote ease of use for members (facility owners/operators) and excavators. Although this ease of use is enhanced when a one call center serves a specifically defined geopolitical area that does not overlap with the service area of another one call center, non-overlapping service areas are not essential. There are three requirements that a one call program must meet to be considered as having implemented this best practice:

- The program permits an excavator to use a single point of contact to submit and follow up on a notice of intent to excavate and to notify affected facility owners/operators.

- The program permits a facility owner/operator to join a single one call center and receive all appropriate notices.
- The program is designed so that all pertinent information is shared among one call centers in the event more than one exists.

References:

- One Call Systems International Voluntary Recognition Program
- Existing operating practices from various states' one call centers
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–3: Formal Agreements with Members



Practice Statement: Each member of the one call center abides by state/provincial statute where applicable or written agreement that states the rights and the responsibilities of the one call members and the one call center.

Practice Description: Operating procedures and bylaws are established. Procedures for the operation of a one call center are simple. The concept is to promote service, not paperwork. Topics for procedures can be classified as general, communications, center operations, reports, expenses, and publicity. These topics can be expanded to include guidelines and whatever else is needed for a particular system. Bylaws vary, depending on the type of organization. In some instances they may prove unnecessary. If bylaws are adopted, simplicity is paramount. Items that can be incorporated include sections on membership (including rights), financial matters, meetings, elections, and duties of officers. Any other required agreements are kept as simple as possible to facilitate understanding by all participants. Consideration is given to include “hold harmless” clauses, amounts of liability insurance, errors and omissions insurance, retention of records, cost allocations, reimbursements, area served (with options to expand as planned), and any special arrangements necessary. If an agreement to contract the service to an outside concern is made, it contains controls, checks, and balances.

References:

- One Call Systems International Voluntary Recognition Program
- Existing operating practices from various states' one call centers
- OCSI Resource Guide 2009 (<http://goo.gl/kplDT>)
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–4: One Call Center Governance



Practice Statement: The one call center is governed by a board of directors representing the diverse makeup of the constituent groups (for example facility owners/operators, designers, contractors/excavators, and government).

Practice Description: To ensure that a one call center functions to the best benefit of the entire community, it is governed by a board of directors made up of representatives of the stakeholders. Board members are from a variety of industry types, such as facility owners/ operators, contractors, designers, project owners, and government representatives. Each board member is knowledgeable in their own industry and of how it interacts with the one call center and all of the represented stakeholders.

References:

- One Call Systems International Voluntary Recognition Program
- Existing operating practices from various states' one call centers
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–5: Single Toll-free Statewide Telephone Number with Nationwide Access



Practice Statement: All one call centers have a single toll free statewide telephone number with nationwide access.

Practice Description: There is only one statewide toll-free telephone number for one call centers to receive locate requests. This number has nationwide access, meaning that a caller can reach the center from anywhere in the country.

References:

- One Call Systems International Voluntary Recognition Program
- Existing operating practices from various states' one call centers
- 49 CFR Part 198
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–6: Hours of Operation^{55/}



Practice Statement: The one call center can process locate requests 24 hours per day, 7 days per week.

Practice Description: The one call center has a process in place where an excavator who has a locate request can, at anytime of the day or night, every day of the year, contact the one call center and have that request processed.

References:

- Existing operating practices from various states' one call centers
- OCSI Resource Guide 2009 (<http://goo.gl/kpIDT>)
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–7: Voice Record of All Incoming Calls



Practice Statement: A voice recording is maintained of all voice transactions concerning requests to locate facilities.

Practice Description: A voice recording of telephone communications for locate requests is made to ensure that a precise record of the activity is retained. This recording can be legally supported in court as well as used for damage investigations.

References:

- One Call Systems International Voluntary Recognition Program
- Existing operating practices from various states' one call centers
- 49 CFR Part 198
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–8: Retention of Voice Records According to Applicable Statutes



Practice Statement: Voice records of all calls concerning requests to locate facilities are retained according to applicable statutes.

Practice Description: Voice recordings are a factual record of the events that occurred between the caller and the one call center. These factual records must be maintained and made accessible until the applicable statute of limitations in the state/province has expired. Because these laws vary from state to state, no specific time period is set forth as best practice. In the absence of notice by some party to the contrary, the records may be destroyed after the expiration of the statute of limitations. The one call center has a procedure for processing requests for voice information.

References:

- One Call Systems International Voluntary Recognition Program
- Existing operating practices from various states' one call centers
- 49 CFR Part 198
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–9: Caller Feedback



Practice Statement: The one call center provides the caller with a ticket number and the names of facility owners/operators who will be notified for each locate request.

Practice Description: Providing the locate request ticket number and the names of the facility owners/operators who will be notified enhances the efficiency of the one call process. When provided the names of the facility owners/operators, the excavator knows which owners/operators will be notified in the area of the planned excavation. This helps the excavator determine if the facility owners/operators have responded to the locate request.

References:

- One Call Systems International Voluntary Recognition Program
- “Model One Call for the 20th and 21st Century,” AT&T (was available when the practice was created but is no longer available)
- Existing operating practices from various states' one call centers
- 49 CFR Part 198
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–10: Printed Ticket Recall



Practice Statement: The one call center can provide a printed copy of any ticket for a period of time determined by applicable statutes.

Practice Description: In the event a damage investigation, litigation, or other event occurs, it often is necessary to have a hard-copy printout of a locate request ticket. Local governments have statutory requirements for record retention in such cases. The one call center has the ability to produce, as necessary, a copy of a location request ticket for the appropriate statutory period.

References:

- One Call Systems International Voluntary Recognition Program
- Existing operating practices from various states' one call centers
- 49 CFR Part 198
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–11: Documented Operating Procedures, Human Resource Policies, and Training Manuals



Practice Statement: The one call center has documented operating procedures, human resource policies, and training manuals.

Practice Description: The one call center has documented operating procedures, human resource policies, and training manuals. Training manuals, practices, procedures, and policies are on the premises in a designated area or place, are dated, and are available for reference.

References:

- One Call Systems International Voluntary Recognition Program
- Existing operating practices from various states' one call centers
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–12: Documented Owner Verification of Data Submitted by Facility Owners/Operators



Practice Statement: The one call center returns the geographic description database documentation to the facility owner/operator annually and after each change for verification and approval.

Practice Description: The one call center can work only with the information related to the existence of buried facilities that its members provide. It is important that the one call center be able to produce evidence that a member's data is accurate, according to that member. Regular verification of data is a part of the documented agreement or operating procedures between the owner/operator of buried facilities and the one call center. Any deletions or additions made by the member are entered into the database, and documentation of the change is returned to the member for verification prior to activation.

References:

- One Call Systems International Voluntary Recognition Program
- “Model One Call for the 20th and 21st Century,” AT&T (was available when the practice was created but is no longer available)
- Existing operating practices from various states’ one call centers
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–13: Flexibility for Growth and Change



Practice Statement: The one call center’s operating plan is sufficiently flexible to accommodate growth and change.

Practice Description: A successful one call center maintains flexibility to respond to changes by forming and maintaining a responsive organization whose board of directors’ composition allows adequate representation of the needs of all stakeholders. A board’s ability to respond to change is enhanced by drafting bylaws and operating procedures that reflect the current environment in which the one call center serves. The most successful boards review these documents on an ongoing basis to ensure they continue to reflect or respond to current conditions. These boards conduct regular strategic planning sessions during which they review the current state of the center’s major systems, programs, and outreach activities. Such assessments help the boards identify stakeholder needs for future growth and development. Many members of boards and center management teams stay informed about and involved in the one call industry by joining associations and attending conferences or other educational events that help them to better identify new opportunities for growth and change.

References:

- One Call Systems International Voluntary Recognition Program
- “Model One Call for the 20th and 21st Century,” AT&T (was available when the practice was created but is no longer available)
- Existing operating practices from various states’ one call centers
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–14: Meeting between the Excavator and Facility Operator(s) Initiated by One Call Notification



Practice Statement: The one call center has a process for receiving and transmitting requests for meetings between the excavator and the facility operator(s) for the purpose of discussing locating facilities on large or complex jobs.

Practice Description: The one call center relays requests for job site facility meetings with facility owners/operators to the affected facilities owner/operator. If a meeting is required to show the limits and schedule of the work, the one call center indicates that a meeting is requested. The one call center requires that the excavator provide sufficient information to fully identify the boundaries of the proposed work site. A meeting request does not necessarily eliminate the need for a locate request.

References:

- Existing operating practices from various states' one call centers
- OCSI Resource Guide 2009 (<http://goo.gl/kplDT>)
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–15: One Call Center Accepts Notifications from Designers



Practice Statement: The one call center accepts design requests and has the ability to process them as designated by the facility owners/operators.

Practice Description: To facilitate damage prevention, project designers have a need for access to facility location information from facility owners/operators. If a design request is received, the one call center provides a listing of facility owners/operators directly to the designer. Once the list is identified, the one call center processes the request as designated by each facility owner/operator.

References:

- Existing operating practices from various states' one call centers
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–16: Locate Request



Practice Statement: The one call center captures the following information, at a minimum, on a locate request:

- Caller's name and phone number
- Excavator's/company's name, address, and phone numbers
- Specific location of the excavation
- Start date and time of the excavation
- Description of the excavation activity.

Practice Description: A locate request is a communication between an excavator and one call center personnel in which a request for locating underground facilities is processed. In addition to the minimum required information identified in the preceding paragraph, the locate request includes any available information that will help establish the specific location of the excavation site. This additional information could include the following, for example:

A: More detailed information to help determine the specific location of the excavation, such as the following:

- 1: City
- 2: County/parish/township
- 3: State/province
- 4: Street address

- 5: Street name
 - 6: Length and direction of the excavation and the nearest adjacent cross streets (needed to bound area of excavation or extended excavation)
 - 7: Subdivision and lot number (for new development)
 - 8: X/Y coordinates—a means of defining horizontal position—the dig site can be a point, an area or box, or a polygon. For a spatial rectangle (maximum/minimum latitude/longitude), the dig site must be wholly within the specified area.
 - a: Latitude/longitude coordinate(s) or specific address of the dig site. These may be done automatically by the GIS subsystem or determined by a computer-assisted customer service representative.
 - b: GPS coordinates. When the excavator provides GPS coordinates to the one call center and when the call center has the technical capabilities to capture this information, the GPS format is also specified (decimal degrees; degrees/decimal minutes; or degrees/minutes/seconds) and included on the ticket.^{61/}
 - 9: Highway mile markers
 - 10: Railroad mileposts
 - 11: General directions/instructions
 - 12: Map grids
 - 13: Distance to nearest cross street
 - 14: Any other pertinent references to help establish the location of the dig site
- B: The intended start date and time of the excavation (i.e., the date excavation is actually expected to begin, which may be later than when excavation can legally begin based on the ticket date)
- C: Type of excavation activity (e.g., boring, blasting, trenching, trenchless, etc.)
- D: For whom the excavation work is being done
- E: The purpose of the work (i.e., what will be installed or built)
- F: Additional remarks

References:^{61/}

- “Model One Call for the 20th and 21st Century,” AT&T (was available when the practice was created but is no longer available)
- Existing operating practices from various states’ one call centers
- 49 CFR Part 198
- Kansas One-Call: Excavator’s Manual. “Rural Area,” pg 9.
<http://www.kansasonecall.com/excavators/reference-materials/excavators-manual/>
- Tennessee 811:
 - Geocall V3 CGAE.28 Rev 012813 “Latitude and Longitude Searches,” pg 1.
 - Geocall V3 CGAE.29 Rev 062713 “Latitude and Longitude Searches,” pg 1.
 - Geocall V3 CGAG.40 Rev 020413 “Latitude and Longitude,” pg 1.
 - Geocall V3 CGAG.41 Rev 020413 “Latitude and Longitude,” pg 2.
- New Mexico 811: Training Manual. 8.14 “How to Use GPS for Mapping a Ticket,” pg 1–16.
- Mississippi 811: Training Manual. “Global Positioning System/Latitude-Longitude,” pg 1.

- Hawaii One Call: ITIC User Manual. "Submit a Locate Request," pg 16. <http://callbeforeyoudig.org/hawaii/index.asp>
- Montana One Call: ITIC User Manual. "Submit a Locate Request," pg 16, 23. <http://callbeforeyoudig.org/montana/index.asp>
- Illinois 811: Excavators. "Information Needed," <http://www.illinois1call.com/excavators/infoneeded.html>

3–17: Practices to Reduce Overnotifications



Practice Statement: The one call center employs practices designed specifically to reduce the number of notices transmitted to facility owners/operators in which the reported excavation site is outside the owner's/operator's desired area of notification.

Practice Description: The one call center employs technology that enables the facility owner/operator to determine its desired area of notification by either polygons or grids. To reduce overnotifications, technology includes, but is not limited to, the following:

- Enables the one call center to define the proposed excavation site buffer to within approximately 800 ft
- Enables the facility owner/operator to identify its desired area of notification to within approximately 100 ft

References:

- "Model One Call for the 20th and 21st Century," AT&T (was available when the practice was created but is no longer available)
- Existing operating practices from various states' one call centers
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–18: Disaster Recovery



Practice Statement: A one call center develops, implements, and maintains an effective disaster recovery plan that enables the one call function to continue in the event of a disaster.

Practice Description: The one call center develops and implements an effective disaster recovery plan that enables it to continue operations in the aftermath of a disaster affecting the facility. Excavators and underground facility owners/operators outside of the area affected by the disaster can continue to conduct business with minimum to no delays in the services provided by the one call center. The disaster recovery plan makes provisions for the one call center to process emergency locate requests for the areas affected by the disaster. The one call center (the primary center) has a backup arrangement with another facility at a remote location (the secondary center). This arrangement includes the following:

- Telecommunications—alternate routing schedules are in place and ready to be activated within minutes of the primary centers' failure.
- Software and hardware—the secondary center has compatible hardware with the primary center. The secondary center always has a copy of the primary's current software.
- Database—the secondary center receives the primary center's database, including locate requests, on a regular basis and preferably in real time.
- Staffing—a portion of the secondary center's staff is cross-trained for the primary center's operation at all times.
- Simulated emergency testing—at least once a year, on a random basis, the disaster recovery plan is implemented to verify that it is operational.

References:

- "Model One Call for the 20th and 21st Century," AT&T (was available when the practice was created but is no longer available)
- Existing operating practices from various states' one call centers

3–19: Direct Electronic Locate



Practice Statement: The one call center provides users a means of direct, electronic entry of locate requests that maintain comparable ticket quality to an operator-assisted entry.

Practice Description: The one call center has interactive data communications sufficient to permit remote data entry for members and excavators. The remote interface validates the input information and allows the user to make corrections if necessary. This correction is accomplished by referencing the same geographic database used at the one call center when taking a called-in request. This process ensures that the ticket quality is maintained for all tickets.

References:

- “Model One Call for the 20th and 21st Century,” AT&T (was available when the practice was created but is no longer available)
- Existing operating practices from various states’ one call centers
- NTSB Safety Study (NTSB/SS-97/01; PB97-917003)

3–20: Accept Multiple Reference Points for Locate Requests



Practice Statement: The one call center can accept multiple types of points of reference to define the exact location of an excavation site (e.g., latitude/longitude, highway/railroad/pipeline mile markers, address, street/cross street, etc.).

Practice Description: The one call center’s locate request-taking processes and computer system are designed to accept and process multiple types of reference points used by callers to (1) describe the location of their work and (2) define the excavation site. Examples of different types of reference points include highway mile markers, railroad mileposts, valid address or street/cross street, latitude longitude, township/range/section, city, county, political and mail address (ZIP code) boundaries, etc. All stakeholders involved in the one call process receive a corresponding benefit when the one call center can define the excavation site as specifically as possible. The facility operator’s job of determining the existence of a potential conflict is expedited, field personnel can find and mark the affected area much easier, and the excavator receives timely markings covering the area of excavation. Standardizing a limited set of criteria reduces the flexibility of the system to serve the excavator and facility owner/operator. The one call center invests in systems and processes that permit inclusion of a variety of types of reference points in defining the excavation site. The one call center takes steps to link these reference points to the database used to register the facility operator’s desired area of notification, thereby helping to reduce overnotification.

References:

- “Model One Call for the 20th and 21st Century,” AT&T (was available when the practice was created but is no longer available)
- Existing operating practices from various states’ one call centers

3–21: One Call Center Security



Practice Statement: The one call center provides appropriate physical and systems security, fire protection, and electrical protection to protect the one call center and its critical components.

Practice Description: The one call center needs protection from natural disasters and other threats. Because the one call center is a critical link in the communication chain between the excavating community and facilities, it is important that the one call center does whatever it can to provide adequate security, taking into account that it may well need to be operational in times of natural disasters or in the face of other threats. Security components could include the following:

- Physical security for the building and its employees through locked operations areas, lighting, employee key cards, and guard patrols
- Physical security for critical systems components that may include locating the facilities in locked enclosures and restricting access to necessary personnel
- General fire protection for the one call center personnel and property
- Specialized fire protection for critical systems components
- Specialized theft protection for critical systems components
- Telephone demarcation points in a protected area within the one call center
- Passwords and protections to limit access to computers and other systems.
- Off-site storage of a duplicate database and necessary system software.

Reference:

- Existing operating practices from various states' one call centers

3–22: Hardware Designed to Tolerate a Single Point of Failure



Practice Statement: The one call center uses fault-tolerant hardware for its critical path operations, such as ticket taking, database access, and ticket delivery.

Practice Description: A fault-tolerant system can withstand any single hardware malfunction without any interruption or degradation of service. These systems have the ability to identify the malfunctioning hardware component and permit its replacement while remaining online and processing normal applications. These fault-tolerant systems maximize the probability that the one call center will be able to properly process an excavation request in the event of a failure or malfunction.

References:

- "Model One Call for the 20th and 21st Century," AT&T (was available when the practice was created but is no longer available)
- Existing operating practices from various states' one call centers

3–23: One Call Quality Standards^{24/}



Practice Statement: The one call center establishes and monitors performance standards for the operation of the center.

Practice Description:

A: Customer Quality of Service Performance Measurements

One call centers monitor the quality of service provided to a customer who phones in a locate request. Key performance indicators include, but need not be limited to, average speed of answer, call abandonment rate, busy signal rate, and customer satisfaction. The recommended benchmarks to fulfill a high quality of customer service while promoting accuracy, cost effectiveness, and efficiency are identified below. Meeting or exceeding a benchmark qualifies as a “best” practice.

1: Average Speed of Answer

Average speed of answer (ASA) usually comprises the number of seconds between the time a caller is transferred from the Interactive Voice Response (IVR) system and the time a voice welcomes the caller and begins the processing of a locate request averaged over a specified time interval and accumulated daily.

Service level objectives in the one call center industry are generally monitored daily, monthly, and year to date. An ASA objective of 30 seconds or less is recommended.

2: Abandoned Call Rate

The incidence of abandoned incoming calls is a function of the number of one call center customer service representatives actively processing locate requests and the volume of incoming calls. Callers have an expectation that all calls will be answered within a reasonable time. A caller that has waited more than 60 seconds before hanging up is considered an abandoned call.

A monthly average abandonment rate that is less than 5% is recommended.

3: Busy Signal Rate

The incidence of callers experiencing busy signals is a function of the number of incoming telephone lines to the one call center and the incoming call volume. Callers have an expectation that there will be very few busy signals.

Typically, one call centers can extract information on busy signals from their telephone systems or obtain the information from their communications service providers. The information usually comprises the number of callers experiencing a busy signal as a percentage of the total number of attempts to contact the one call center during normal business hours.

Service level objectives are reported daily, monthly, and year to date. A monthly average busy signal rate that does not exceed 1% is recommended.

4: Customer Satisfaction

A fundamental principal in measuring quality is that “the customer defines quality.” Periodic customer satisfaction surveys are conducted.

The one call center makes all information/data collected on the quality of its performance available for review by the appropriate oversight authority and the public upon request.

B: Locate Request Quality

The one call center has in place quality control and quality assurance programs to measure and monitor the accuracy and completeness of the information received by the one call center compared to the information transmitted by the one call center.

C: Notification Delivery

The one call center establishes and monitors criteria for the transmission of notifications and notification audit reports.

Typically, the one call center can transmit notifications in an electronic format that allows receiving stations to parse/extract data.

Notification audit reports are sent to receiving stations at a mutually acceptable frequency. It is a best practice to send an audit report at least once every business day.

Typically, notification transmission is immediate.

References:

- One Call Systems International Voluntary Recognition Program
- "Model One Call for the 20th and 21st Century," AT&T (was available when the practice was created but is no longer available)
- Existing operating practices from various states one call centers

3–24: Web Services Solution^{17/}



Practice Statement: The one call center provides a method by which a member operator can receive excavation notifications through a secure Web service that uses an accepted standard for its ticket format, such as Extensible Markup Language (XML) 1.0.

Practice Description: In addition to all other methods and formats used by one call centers to communicate excavation notifications to underground facility owner/operators that do not have automated ticket management systems, one call centers also should provide a method that is consistently secure and reliable. Establishing this method within the one call centers along with an accepted standard format such as Extensible Markup Language (XML) 1.0 satisfies this practice. Providing e-mail and/or File Transfer Protocol (FTP) communications methods alone does not satisfy this practice.

References:

- Sunshine State One Call of Florida
- Utility Protection Center of Georgia
- Dig Safely New York
- Ohio Utilities Protection Service
- Arizona Blue Stake, Inc.

3–25: Identification of Unknown Lines^{15/}



Practice Statement: The one call center has a defined and documented policy for handling calls from excavators regarding the discovery of an unidentified line.

Practice Description: To facilitate damage prevention, one call centers have an established procedure that is implemented when an excavator calls and reports an unidentified facility. The action taken could be as simple as renotifying all affected facility operators in the absence of any other specific requirement of state or local law.

References:

- Many one call centers process a “Dig Up” request when an unidentified line has been exposed (Texas). Others simply reissue the locate request with an appropriate remark (Maryland, Delaware). Some state laws mandate that additional specific action be taken by the facility operators upon receipt of these types of notices (Arizona, which currently requires an “unknown line policy” to be in effect via the Arizona Blue Stake One Call Center). The law requires that the one call center “establish a method of providing personnel from a facility owner qualified to safely inspect and verify that the facility is abandoned or active and a method for reimbursing the verifying facility owner for the cost incurred.”

3–26: One Call Membership^{22/}



Practice Statement: Any entity that furnishes or transports products or services to a third party for its use or consumption by means of an underground facility or furnishes or transports products or services for its own internal use by means of an underground facility that occupies or crosses a right-of-way or utility easement is a member of a one call center.

Practice Description: Underground damage prevention begins with a notice of intent to excavate submitted by an excavator to the appropriate one call center. The process of notification depends on all affected member facility operators being notified of intent to excavate through the regional one call center.

Membership in the one call center by underground facility operators ensures that potential conflicts with existing facilities that may be encountered during excavation activities are identified by using a single regional point of contact. Operators of the aforementioned underground facilities who fail to become members of their local one call center risk public safety and damage to their facilities, and endanger excavators who may come into contact with these aforementioned underground facilities.

The following are examples of an underground facility that would probably not require one call center membership:

- The internal use of owned underground facilities to provide safe operations in controlled rights of ways, such as railroad operating corridors that facilitate the transportation of freight or passengers.
- The internal use of an entity’s underground facilities by that entity solely on its own property. (Note: aboveground use of one’s rights of way or property, such as the transportation of freight or passengers by rail, is not within the purview of the CGA Best Practices.)

References:

State One Call Laws, 1999 Common Ground Study

3–27: Electronic Positive Response^{46/}

Practice Statement: The one call center provides a method for facility owner/operators to electronically post their positive response status to a notice of intent to excavate.

Practice Description: By hosting an electronic positive response system, the one call center provides facility owner/operators the best means to communicate the status of their response to a notice of intent to the person initiating the notice.

References:

- BP 4-9 Positive Response Is Provided to Facility Locate Requests
- Existing practice in Arizona, Colorado, Delaware, Florida, Georgia, Iowa, Maryland, Michigan, New Jersey, New Mexico, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and Washington, D.C.

3–28: One Call Center Data^{53/}

Practice Statement: All one call centers annually submit their ticket and transmission volumes to the OCSI Data Collection Tool.

Practice Description: Ticket and transmission volumes from the One Call Systems International (OCSI) data collection tool are shared with the Damage Information Reporting Tool (DIRT) to make a correlation between one call center ticket and/or transmission volume to damages or events that have occurred. Many one call centers currently provide this data to the OCSI data collection tool. Receiving ticket and transmission volumes from all one call centers allows all stakeholders to review, on a national level, more accurate projections and to determine the cause and possible solutions for damages to subsurface installations.

References:

One call centers who participate currently:

AL — Alabama 811	LA — Louisiana One Call System	OH — Ohio Utilities Protection Service
AR — Arkansas One Call System	MA — Dig Safe System	OR — Oregon Utility Notification Ctr
AZ — Arizona Blue Stake	ME — Dig Safe System	PA — Pennsylvania One Call System
CA — USA North	MI — Miss Dig System	RI — Dig Safe System
CA — USA South	MN — GopherState One Call	SD — South Dakota One Call
CO — Colorado 811	MO — Missouri One Call System	TN — Tennessee 811
CT — Call Before You Dig	MS — Mississippi 811	TX — Texas 811
FL — SunshineState One Call	NC — North Carolina 811	UT — Blue Stakes of Utah
GA — UtilitiesProtectionCenter	NH — Dig Safe System	VA — Miss Utility of Virginia
IA — Iowa One Call	NM — New Mexico One Call	VT — Dig Safe System
ID — Dig Line	NV — USA North	WA — Oregon Utility Notification Ctr
IN — Indiana 811	NY — New York 811	WI — Diggers Hotline
KS — Kansas One Call System	NY — Dig Safely New York	WV — Miss Utility of West Virginia
KY — Kentucky 811		

3–29: One Call Facility Locate Request Size and Scope^{54/}



Practice Statement: A maximum locate request area that is appropriate for a proposed excavation site is defined for a facility locate request.

Practice Description: Designating a manageable locate request size (work area size/scope) along with clear locate instructions will reduce uncertainty and provide clarity to the utility operators and/or locators as to "what" and "where" needs to be located and marked. This is designed to prevent unnecessary locator effort and allow adequate time to locate and mark the affected underground facilities within the time frame and marking requirement of the appropriate state statute.

References:

- Existing state laws, including Georgia, Indiana, Pennsylvania, and South Carolina (as examples)

3–30: Locate Information Shared with Excavator^{60/}



Practice Statement: The one call center provides locate request information to the excavator.

Practice Description: Providing locate request information to the excavator enhances the one call communication process. By providing the excavator with a record of information communicated to facility owners, operators, and locators by the one call center in response to the excavator's locate request, the excavator is able to verify the accuracy of the information. This information includes but is not limited to contact information, work type, excavation activity duration, ticket life, as well as the proposed location of excavation activities.

References:

- North Carolina 811
- Pennsylvania 811

3–31: Enhanced Positive Response^{66/}



Practice Statement: Enhanced Positive Response is utilized, where available, to provide additional information to the excavator about a performed locate.

Practice Description: This information provided to the excavator, prior to excavation, will help the excavator know more about the utilities and job site prior to dispatching resources to excavate. With this additional information, the excavator will be able to plan the excavation to reduce damage to underground utilities.

This communication may include documentation and any other information that will promote safe excavation including details about the locate and the facility owner.

It is a common practice for utility operators and contract locators to capture the enhanced information about locates that are performed in response to one call centers requests.

Sharing this enhanced information with the excavator, prior to excavation, will help to reduce damage to underground facilities and provide clarification of the location of each utility.

References:

- A pilot program was successfully implemented in 2014 in Montgomery County, MD. The success of the pilot program encouraged utilization of the EPR throughout Washington Gas distribution system. Beginning May 2015, there have been over 1,000,000 EPR packages provided system-wide.

EXHIBIT 11

USA North 811

Minutes of the Board of Directors Meeting

Wednesday July 26, 2017

Quick Reference:

- 4/26/17 Board of Directors, Annual Committee, and Closed Session Meeting Minutes - Approved
- ABC Committee's recommendation for a Full Audit not exceed \$20,000.00 – Approved

1. Call to order – Chairman Andy Wells

Introduction of New USA North 811 Executive Director, James Wingate

Andy introduced USA North 811's new Executive Director, James Wingate to the board and guests. Andy stated, that James came to us from Utah 811 and is a welcome addition to our Center, and that he has been well received by staff. James then continued, stating that he is very happy to be here, and very excited to work with staff and the board building a good working relationship.

Secretary Linda Whitley, then continued with the Meeting roll call.

Board Member attendance: (* = Tele-Web attendance / Underlined = absent)

Aaron Johnson	Dublin San Ramon Services District
Al Broglio	Calaveras Telephone
Andy Wells	Pacific Gas & Electric
Bob Mackey	City of Alameda
Bob Ward *	NV Energy (NV)
Boyd Duchene *	Clark Co Water Reclamation (NV)
Brandon Stokes *	Comcast
Emerald Cabamalan *	Sacramento Municipal Utility District
<u>Fred Loeser</u>	City of Oakland
Gil Rivas	San Jose Water Co
<u>Jack Byrom</u>	Truckee Meadow Water Authority (NV)
<u>Jack Wilbur</u>	San Andreas Sanitary Dist (WUUA)
Jeff Daniels *	City of Modesto
Jerry Carnahan	County of Sacramento
John Hayden	East Bay Municipal Utility District
<u>Jonathan Cordaway</u>	City of Antioch
Marshall Johnson *	Pacific Bell / SBC / AT&T
Mike Smuin *	Consolidated Communications
Ryan Dove *	Southern California Gas
Peter Brandt	Contra Costa Water
<u>Steve Lima</u>	City of Sacramento
<u>Tim Watts</u>	Frontier
Thomas Georgi *	Las Vegas Valley Water (NV)
Wes Rigsby	County of Santa Clara

Stakeholder attendance:

Anthony Headley	West Valley Construction
Randy Charland	Utiliquist
Sunil Shori	California Public Utility Commission

Member/Guest attendance:

Ann Diamond *	USA South / Dig Alert
Jim Schwilk *	USA South / Dig Alert
Robert Bradley	County of Sacramento
Zoya Veis	HR Options Consultant

USA North 811 Staff attendance:

Collin Miyadi / Davin Garcia / James Wingate / Linda Whitley / Ryan White

After roll call Chairman Andy Wells stated that we do not have a Consent Calendar for this meeting as we previously had, but will be addressing that in the meeting.

2. Approval of the 4/26/17 Board of Directors, Annual Meeting, and Closed Session Meeting Minutes, as mailed – Andy Wells

Andy asked for a motion to approve the 4/26/17 Board of Directors Meeting, Annual Committee Meeting, and Closed Session Meeting Minutes as mailed. Wes Rigsby made the motion to approve the 4/26/17 Board of Directors Meeting, Annual Committee Meeting, and Closed Session Meeting Minutes as mailed. Al Broglio seconded the motion. The motion passed.

3. CGA Best Practice Gap Analysis – James Wingate

James discussed the “CGA Best Practices 2017 Compliance Report and Gap Analysis” that he had been asked to do by Chairman Andy Wells. James gave a review of each item marked as “Partial Compliance”, stating how we are in compliance, and what more needs to be done to reach Full Compliance with the CGA Best Practices. Items at Partial Compliance:

- 3.1 – Proactive Public Awareness, Education and Damage Prevention Activities
- 3.2 – Specifically Defined Geopolitical Service Area with no Overlap
- 3.6 – Hours of Operation
- 3.15 – One Call Center Accepts Notifications from Designers
- 3.17 – Practices to Reduce Over Notifications
- 3.21 – One Call Center Security
- 3.25 – Identification of Unknown Lines
- 3.26 – One Call Membership
- 3.27 – Electronic Positive Response

Discussion continued after his report centering on “Electronic Positive Response”. Ryan White stated that we are required to provide this, and that the Center will monitor and track its use. This will be free to our Members, however it is up to the Members to use it. We will be providing reports and stats to the board each meeting that will show how the efforts in the field increase. Andy stated our goal should be 100% participation by the Members as this is a very important tool for all. When ready, a broadcast will be sent out to all Members, and we are looking at putting up a page on our Website.

4. Notification Center performance statistics – Ryan White, Managing Director

Ryan review with the board the YTD Statistic

2017 YTD Statistical Summary Report

<u>YTD Service Levels</u>	<u>Q2</u>	<u>Q1</u>	<u>2016</u>	<u>Best Practice</u>
Busy Signals	0.06 %	0.01%	0.08%	1.00%
Speed of Answer	1:41 min	1:15 min	5:05 min	30 sec
Abandon Calls	0.20 %	0.07%	0.07%	5.00%
Ticket Delivery	0:47 sec	0:30 sec	1:27 min	30 Min Regular, 15 Min Short Notice, 5 Min Emerg

YTD Membership

California Members	1,274 (+1)
Nevada Members	200 (0)
Stakeholders Members	3 (+1)
Sustaining Members	8 (0)
Total	1,485 (+2 / +0.1%)`

800/811 CALLS

	<u>800 (33%)</u>	<u>811 (67%)</u>	<u>Total</u>
Overall	105,757 (-29%)	185,269 (+9%)	291,026 (-8.8%)
California	98,459 (-27%)	163,876 (+7%)	262,335 (-8.7%)
Nevada	7,298 (-46%)	21,393 (+18%)	28,691 (-9.2%)

OVERALL TICKETS / TRANSMISSIONS

	<u>Tickets</u>	<u>Transmissions</u>	<u>E-Ticket %</u>
Overall	530,570 (+9%)	3,975,854 (-1%)	43.3%
California	466,742 (+8%)	3,490,506 (-1%)	
Nevada	63,828 (+15%)	485,328 (+1%)	

2016 OVERALL TICKET BY TYPE COMPARISON

Cancellations	Extensions	Follow-ups	New	Renewals	Damaged/Exposed (D/E)	New D/E Tkts 10%
1.61%	31.73%	4.97%	53.68%	7.63%	0.38%	Follow-up D/E Tkts 90%

TICKET BY REMARK YES **9% of Extensions** **23% of Follow-ups** **18% of Renewals (CA only)**

BUSIEST COUNTY **California – Santa Clara 54,317 Tickets** **Nevada - Clark 47,766 Tickets**

DESIGN RESEARCHES

Overall 249 (-71.8%) California 228 (92%) Nevada 21 (8%) Researches (Users 90% - Admin 10%)

Ryan continued with the new charts for Tickets Processed from 2015 – 2017 for California, for Nevada, and Overall. Discussion then continued regarding USA North 811 hiring additional CSR's, when will the Center have reached a total of 39 CSR's, and the use of our Interpreter Service vs CSR's who are Bilingual (preferably Spanish speaking). Ryan explained that we have hired the last 3 CSR's all to begin work in August, and that brings our total to 39 CSR's on staff. We have current 2 CSR's who are Bilingual, however, they are not certified as required to do the job, and there is some hesitation in becoming Certified. We had hired one other bilingual CSR, but that person was not able to do the job and left. It was suggested by Zoya Veis with HR Options, that we expand the field where we are looking, and the value of people who speak both languages and can understand maps. But we should work with the 2 bilingual CSR's we have and see if there would be a need for additional. Also suggested was becoming a member of a translating program. Andy recommended we develop a plan, and bring before the board, and then see what the board can do to help it be successful. Randy Charland suggested if using translators / interpreters documenting it on the Ticket that it was a "translated ticket" so the Members see that when they receive the ticket. It was also mentioned in the discussion, that we have experienced a 74% reduction in Speed of Answer & Ticket Delivery, and USA North 811 should take a moment to recognize these improvements, and for Staff to provide Pizza for all employees as a "thank you" for their hard work.

5. Benchmarking trips report – PA811, TX811, VA811, PG&E Contact Centers – Ryan White

Ryan reviewed with the board the trips USA North 811 managers and Andy Wells from PG&E had made to the Pennsylvania, Texas, & Virginia 811 Centers, & the PG&E Contact Center in Sacramento. With Marketing and Education, some Centers have multiple liaisons who target specific areas to get the One Call message out. In addition, some Centers have Dual Use employees who help out when their call volume spikes. With night tickets percentage, USA North 811 seems to be at the middle of the road, and Ryan stated all other centers have a higher cost per ticket.

6. Member and Excavator feedback – Ryan White

Ryan stated at this time we have no feedback from Members or Excavators, but will be developing a way to see the areas of concern, and allow our staff to enter topics and issues. Will be reporting on Members and Excavators feedback going forward.

7. Audit Budget Committee report – Gil Rivas, Vice-Chairman

Gil reviewed with the board the 2016 USA North 811 Financial Statement Report provided by CPA Charles Benedict. We are in good financial standing, but have decided to move forward and have a Full Audit. James added information regarding Tonie Ibarra, our bookkeeper seeking out and obtaining bids for the Audit, and that the Audit is different than the Financial Statement which is just a review of the past year.

Chairman Andy Wells asked for a Motion to instruct the USA North 811 Center Staff to engage in an Audit for 2016, and not to exceed \$20,000, as per the ABC Committee. Wes Rigsby made the Motion for the Audit of 2016, and not to exceed the \$20,000.00 limit. Al Broglio seconded the motion.

Further discussion continued as to if we will be having the Financial Statement Review in the future, and the recommendation that we have an Audit Annually.

Andy asked if all were in Favor; all were in Favor, none were Opposed, there were no Abstentions. The Motion Passed.

8. Notification Center Update – Ryan White & James Wingate

Ryan went over with the board the Second Quarter budget in detail.

A. Q2 Budget report

Q2 2017 YTD Budget Report

<u>Approved Budget</u>	\$5,508,150.00
<u>Expense YTD</u>	\$2,520,444.18
<u>Budget YTD</u>	\$2,754,075.18
<u>Variance YTD</u>	- \$233,631.00
<u>Approved Budget Remaining</u>	\$2,987,705.82
<u>Budget Remaining</u>	<u>54%</u>

B. Organization Chart

New Organizational Chart was passed out to the board members.

C. Updates – Legislation / CARCGA / NRCGA / CGA

CARCGA

James asked Ann Diamond with Dig Alert to give an overview of the recent CARCGA meeting.

- California Regional CGA is a Non Profit Mutual Benefits group
- September 19th, CGA will be in Bakersfield with Senator Hill as the Guest Speaker
- Had a mock presentation last year which went very well and had an incident to show how each of the emergency responder did their work
- CARCGA is always looking for New Members
- The next meeting will be a Conference Call on August 8th for Members and Non Members.

NRCGA

James asked Bob Ward with NV Energy to give an overview of the recent NRCGA meeting.

- NRCGA reached out to local contractors in Nevada for Excavator Safety Training. Last year they had 1,000 attendees, and this year about the same attendance, but included one class in Spanish. Classes are now being requested monthly for both Spanish and English.
- The 1st Annual Locate Rodeo was held in June which was well attended and had vendors from around the area, including ELM, and NV Energy. Two People were sent to participate from Nevada in the Nationals, everyone loved it and are looking for a larger turn out next year which will be included with Safety Day making it a 2 day event, with Trench Rescues, Awards and a Banquet.
- July 13th, NV Energy partnered with USA North 811 for the SAFE Event in Henderson
- All Nevada Members are optimistic for the new relationship with USA North 811 under James Wingate, and like the direction things are heading.
- Still have 24 / 7 on the radar and Positive Response.

James thanked Bob, and stated it was good to attend both meetings in Southern and Northern Nevada. It is important to him and felt good to participate in the meetings, getting to know the people, and hear their concerns, so that he will be able to address any issues. USA North 811 will continue to be active and supportive with the Members in both Nevada and California.

Legislation

Ryan White shared with the board that he had sent out a Broadcast on 7/13/17 at 6:49 p.m., stating that Senate Bill 92 had been signed by the Governor on June 27th, 2017. Ann Diamond added that the Excavation Ticket is now happening in July of 2020, and the Website for 4216 has been updated.

9. Marketing & Education Report – Collin Miyadi, Marketing & Education Manager

Collin review with the board the most recent activities that have taken place in the Marketing & Education Dept.

- Continued participation in Kentucky Derby and Preakness Stakes.
- Collin participated as a judge in the Nevada Regional CGA Rodeo, which had good attendance and was a great experience for the contractors and excavators who participated.
- Ryan White and John Hayden represented 811 in the filming of an episode of a television show called Hunting in the Sticks that will be shown on the Pursuit Channel. John stated it was a great experience as they caught and released 2 dozen sturgeon while promoting 811.
- June 8th USA North 811 partnered with PG&E for a SAFE Event in Santa Rosa
- July 18th to 20th Collin and Ryan White participated in the One Calls of America Mark-It Madness summer meeting in St. George, Utah where the keynote speaker was Tim Sanders.

10. Technology Report – Davin Garcia, IT Director

In interest of time, Andy tabled Davin Garcia's IT report until the next meeting.

11. Bylaws and Articles of Incorporation updates – Andy Wells

In interest of time, Andy tabled the "Changes needed in the Articles of Incorporation & Bylaws" until the next meeting. Andy stated the "Bylaws" list the Chairman as CEO and will address this in the future and need to update the process server as Michael Heyer is still listed. Andy also stated he has concerns with the New Billing Process, and is open to feedback.

12. Other Business - Andy Wells

A. New business

No new business

B. Guest comments & questions

No guest comments or questions

C. Next meeting Agenda items

Andy requested we have a discussion of the goals there were approved in the September 2016 meeting.

D. Next meeting will be Wednesday, October 25, 2017 – 10:00 AM at USA North 811 office

E. Adjourn

With no further business to come before the Board, Andy Wells asked for a motion to adjourn the meeting. Aaron Johnson made a motion to adjourn the meeting. Wes Rigsby seconded the motion. The meeting was adjourned.

EXHIBIT 12

The AGA Peer Review Program

Pursuing a Leading Safety Program

In 2011, as part of an ongoing effort to enhance industry safety, the North American energy pipeline trade associations analyzed safety programs and information exchange initiatives used in the aviation, chemical, firefighting, nuclear, rail and trucking industries. An opportunity was identified to develop a peer-to-peer discussion program that would offer an effective venue for operators to compare safety and operational initiatives and identify leading practices and opportunities to enhance their performance.

In 2013 & 2014 the American Gas Association (AGA) piloted a voluntary peer-to-peer safety and operational practices review program with ten member companies. As a result of the pilot's success, AGA instituted a national Peer Review Program in January 2015 that is open to natural gas utilities in its membership. The insights gained and industry-based collaborations built is helping to advance safe and reliable natural gas delivery throughout the United States.

The AGA Peer Review Program

Nearly 60 AGA member companies located in the United States and Canada volunteered to participate in the inaugural phase of the Peer Review program. The companies range in customer count from 35,000 to almost 6 million. Each phase of the program is three years, with the first phase starting in January 2015 and concluding in December 2017. In each phase, all companies participating in the program are reviewed and agree to send subject matter experts to review peer companies. During a company's review, subject matter experts from peer companies interview company employees (executives, middle management, crew leaders, field workers, and union representatives) and contractors. A typical review lasts four days, includes 12 – 17 subject matter experts and 60 – 100 interviews, with the final day featuring a verbal report that highlights the review team's observations to the company's leadership.

Reviews are focused on three topics relevant to employee, public, and pipeline safety and system reliability to determine leading practices as well as opportunities for improvement. The three introductory topics are:

- Safety Culture
- Worker Procedures & Technical Training
- Pipeline Safety Risk Management

Companies that completed the three introductory topics may select two of the following topics for their next review:

- Contractor Construction Relationships
- Emergency Preparedness & Public Awareness
- Damage Prevention
- Workforce Development & Succession Planning
- Quality Management

Each review team's objective is to gain an understanding of the company's practices, procedures and standards in an effort to identify strengths and leading initiatives of the company along with areas that potentially need attention or improvement. Subject matter experts from each of the participating companies, chosen by company leadership for their expertise and experience, visit companies in their peer group to observe facilities and operations, and to interview employees and contractors throughout all sectors of the organization on practices, procedures, initiatives and safety culture. Participating companies are devoting significant time and resources to the effort, demonstrating their commitment to enhancing the safety of the industry, their belief in the benefits of the peer review process, and their dedication to the success of the program.

The AGA Peer Review Program

Results

Feedback from program participants and industry leaders has been overwhelmingly positive, with participating companies finding the reviews to be a valuable resource in helping to identify leading practices and ways to further enhance their safety performance. The nature of the program has allowed participants to build a strong level of trust, which, in addition to their deep industry knowledge, has led to an honest, open and productive process. Executives and participants alike make it clear they view the reviews a success and have expressed a sincere belief that the review team's observations will help enhance and improve the company's operations.

The experience is granting participants the opportunity to form relationships with peers that continue beyond a review and facilitate information sharing and trust across the natural gas industry. Reviewers benefit from the opportunity to learn from the programs they observed and gain a deep understanding of fellow company practices that could guide their own efforts in enhancing employee, public, and pipeline safety.

Observations

While each company review provides unique observations, there are themes that are frequently, though not uniformly, identified. Some of those themes and the industry's resultant initiatives are listed below:

- **Safety Culture:** Across the industry, leadership and stakeholders continue to stress the importance of safe work environments and personal safety. This consistent messaging enhances employees' confidence and authority to promote safety culture principles that are core to the work they do. In an effort to constantly improve and implement safety culture concepts within Pipeline Safety Management Systems, the industry is continuing to change the manner in which safety policies are developed. Traditionally these policies were often revised reactively after incidents or near-misses. Now companies are striving to develop proactive programs, which include promoting the reporting of safety concerns, creation of safety teams, and changing incentive programs that may cause under-reporting of safety concerns or injuries.

AGA's annual Safety Summit provides a dedicated venue for companies to share their successful safety programs and initiatives, along with lessons learned from incidents and near misses. This is in addition to AGA's standing Safety & Occupational Health Committee which brings together safety professionals from across the industry to develop innovative solutions to the industry's challenges and AGA's Best Practices Program that allows companies to benchmark their company against others and learn from others.

- **Worker Procedures & Technical Training:** A positive and impactful trend in the industry is the design and construction of state-of-the-art employee training facilities. This investment has allowed new and veteran employees to hone technical skills in environments specifically designed to simulate actual field conditions. However, the industry continues to face long-term workforce development challenges. This includes managing knowledge transfer, developing new employees as seasoned industry experts retire, and the contracting of qualified contractor resources. In addition, many companies continue to seek solutions that help to address field management's need to balance administrative activities and their presence in the field, as well as details and logistics related to the training of their employees.

The recognition of these challenges has resulted in the inclusion of the new Peer Review topic, Workforce Development & Succession Planning. AGA also added a discussion group on Technical Training in 2016 and is hosting a Technical Training Workshop. Additionally, AGA recently launched a Workforce Development Task Force aimed at providing collaborative solutions to workforce development issues, is also actively involved in the Center for Energy Workforce Development, and is involved in efforts to bring veterans into the industry.

2016



The AGA Peer Review Program

- *Pipeline Risk Management*: The industry has taken great strides to improve the safety and reliability of their pipeline system, often implementing policies and programs that frequently go well beyond federal and state pipeline safety regulations. The industry is looking at ways to build technological consistency throughout all parts of an organization, which will help to ensure that the best technology devices are in place to meet a company's goals. This includes the development of robust Geospatial Information Systems (GIS), work management systems, risk models, and leak detection and leak management systems. The industry also continues to face challenges related to the education and enforcement of 3rd party damage.

In an effort to help the industry address these challenges, AGA's 2016 Best Practices Program focused on the Maintenance of As-Built Documentation and held a roundtable on the Construction of New and Replacement Mains and Services in 2015. Additionally, AGA offers twelve different technical and advocacy committees, as well as eight discussion groups, that focus on areas of pipeline safety. One of the new discussion groups for 2016 directly resulted from the Peer Review Program: Emergency Preparedness & Public Awareness.

- *Contractor Construction Relationships, Damage Prevention, Emergency Preparedness & Public Awareness, Quality Management, and Workforce Development & Succession Planning*: To date there has been limited participation in these new topics, as many of the pilot program participating companies are being reviewed in 2017. Once there is additional participation, trending observations can be identified.

Continuous Improvement

The Peer Review Program is gas companies helping gas companies raise the bar on safety. The program is a conscious choice from AGA members to share and advance the safety of their operations, personnel, and the public. The impact of the program is significant, both for individual companies as well as for the industry as a whole.

For companies that are being reviewed, there are immediate valuable insights that help to direct the company's actions to improve safety and reliability. In addition, those participating in a review are able to observe leading practices being done by the company and bring those practices back to their own company.

"The connections formed through the national AGA Peer Review Program will help ensure that local natural gas utilities throughout the nation can continue to enhance their record of excellent, safe and reliable service."

Christina Sames, Vice President of Operations and Engineering.

AGA has held a workshop for participating companies to highlight some of the leading practices identified during the reviews and to discuss common challenges facing the industry. AGA is currently investigating other options to share leading practices.

Additional Information

The AGA Peer Review Program received the American Society of Association Executive (ASAE) 2015 *Power of A Gold Award*. AGA is currently working on the 2018 – 2020 Peer Review Triennium.

To Learn More Visit www.aga.org

or connect with us on Twitter @AGA_naturalgas and facebook.com/naturalgas

EXHIBIT 13



irth UtiliSphere **Features**

irth UtiliSphere can truly transform any business.

Take a look at UtiliSphere's **features**:

To achieve business growth, you must maximize the performance of your people, the work they do, and the assets they use. Read the features below to learn how UtiliSphere helps achieve maximum performance that fuels business growth.

One Call Ticket Management

UtiliSphere has the premier, leading One Call ticket management solution in the industry. Using UtiliSphere, organizations can electronically receive, respond to and resolve excavation requests. The solution includes customizable rules for automatic ticket routing and dispatching and One Call ticket screening with facility and responsibility mapping. Facility shapes can be imported or manually drawn to represent systems and buffers or areas of locator responsibility. In addition, location

shapes can be exported to third party GIS systems. Other features include automated positive response to the One Call center, utility company, locator and excavator via email, voice, fax or manual call, and the ability to accurately and comprehensively pinpoint dig sites on a map.

KEY BENEFITS [SEE MORE \(/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS\)](/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS)

- Mapping algorithms are designed for safety and accuracy
- Quickly identify if dig sites are a hazard
- Eliminates manual processes
- Improves compliance with ever-changing local laws
- Eliminates the need for dispatching when excavation does not require an activity

No-Code Customizable Form Designer

Our unique no-code form designer empowers customizable, DIY digital form design in a collaborative, easy to use, test and publish environment. Forms can be designed with advanced functions like dynamic contextual intelligence, multiple field types, advanced nesting, tracking, auditing, alerts, triggers, calculations, data inputs, validation and verification.

KEY BENEFITS [SEE MORE \(/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS\)](/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS)

- Improves process efficiencies company-wide
- Eliminates human error
- Empowers real time data capture
- Ensures accurate and complete information capture
- 100% customized to your business processes
- Empowers you to use the data you capture

Mobile Device Access

Mobile access allows data collection on any laptop, tablet, smartphones or remote device in any OS, online or offline (even mapping functionality). Universally compatible with any device, UtiliSphere can be deployed and interchanged with different operating systems at any time. Advanced features include photo and document capture, responsive user interfaces, GPS integration, work prioritization, customizable push notifications, signature capture, speech-to-text, turn-by-turn directions and more.

KEY BENEFITS [SEE MORE \(/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS\)](/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS)

- Empowers remote workers globally
- Allows data capture in the field; connected or not
- Lets you deploy the hardware you have in place
- Future-proofs your investment against future technology changes
- Empowers data collection with or without internet access

Work and Asset Mapping

UtiliSphere gives you the ability to dynamically map your assets as well as where and when work is scheduled and/or completed. With pinpoint accuracy, our maps display street and satellite with ERSI map layers. Layers can be activated with various assets — and maps can be leveraged to define workforce responsibility, measure distances, search for assets/locations, auto-suggest related work items, view worker's locations in real time, see work in progress and many more advanced functions.

KEY BENEFITS[SEE MORE \(/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS\)](/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS)

- Ties physical assets to critical workflows
- Delivers critical information to local technicians
- Enables users to “see” sales opportunities for growing revenue
- Ensures compliance with local, state and federal requirements
- Enhances automated scheduling, dispatching and notifications

Configurable Process Automation Designer

Using UtiliSphere, entire work processes can be completely customized, automated and enforced. This includes automatic work dispatch (individuals or groups) based on triggered, scheduled or timed events; advanced if/then actions and rules based on system conditions; and recurring workforce notifications. In addition, workforce automation can be extended to third parties and contractors.

KEY BENEFITS[SEE MORE \(/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS\)](/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS)

- Automates your processes and workforce
- Provides visibility into who's in the field and why
- Enforces critical policies and procedures
- Dispatches the right workers for the right job
- Notifies individuals of critical work to save time and money

Customized Scheduling and Routing

UtiliSphere has the ability to schedule and optimize routes to job sites with automated routing or manual overrides — including the ability to take into account average time on a job site and travel time. This allows organizations to better plan jobs, communicate arrival times to customers or site managers, provide notices and alerts and develop advanced schedules.

KEY BENEFITS [SEE MORE \(/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS\)](/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS)

- Saves travel time, fuel and optimizes routes
- Allows jobs to get done faster with more efficiency
- Improves customer communication
- Drives job-site efficiencies
- Expedites customer communication and invoicing

Reporting and Analytics

UtiliSphere provides Reporting and Analytics with the opportunities to drill down into every aspect of your business and create custom DIY reports with visually rich charts, graphs and complex data comparisons. Information can also be viewed on a map, exported to multiple file formats and indexed by time, work type, work cluster and more.

KEY BENEFITS [SEE MORE \(/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS\)](/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS)

- Provides insight into cost optimization and profitability
- Allows organizational visibility into KPIs to drive company-wide improvement
- Drives information for proactive budgeting and planning against historical data

Integration with Internal and External Systems

The built-in APIs within UtiliSphere allow it to push and pull data bi-directionally to and from other systems automatically — including systems such as document management, EAM, WOM, ERP, CRM and CMMS; or any custom-developed or accessible system such as barcode and inventory systems. This can be done in the field, in the office, across remote systems or mobile devices. Single sign-on can also be leveraged for system access, ensuring compliance and reducing the need for multiple passwords.

KEY BENEFITS [SEE MORE \(/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS\)](/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS)

- Extend and get more value from the technology you already have in place
- Trigger critical events and processes from systems outside of UtiliSphere
- Capture data from remote monitoring devices for predictive maintenance (IoT)
- Unlock trapped or siloed data from existing internal systems

Ease of Use, Scalability and Availability

Not only is UtiliSphere extremely easy to use with an intuitive user interface, it is highly scalable and boasts a 99.9% uptime with proven reliability. It is deployed in the cloud with multi-tiered security, giving you the peace of mind that your critical data and company information will always be safe.

KEY BENEFITS [SEE MORE \(/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS\)](/UTILISPHERE/IRTH-UTILISPHERE/BENEFITS)

- Scales with you as your business grows

- Training time is minimal and ramp-up is fast
- Always available when you need it; no downtime
- Product updates are immediate
- Data is secure

Ready to **get started?**

[CONTACT US \(/UTILISPHERE/CONTACT\)](/UTILISPHERE/CONTACT)

Need to **see more?**

[REQUEST A DEMO \(/UTILISPHERE/REQUEST-A-DEMO\)](/UTILISPHERE/REQUEST-A-DEMO)

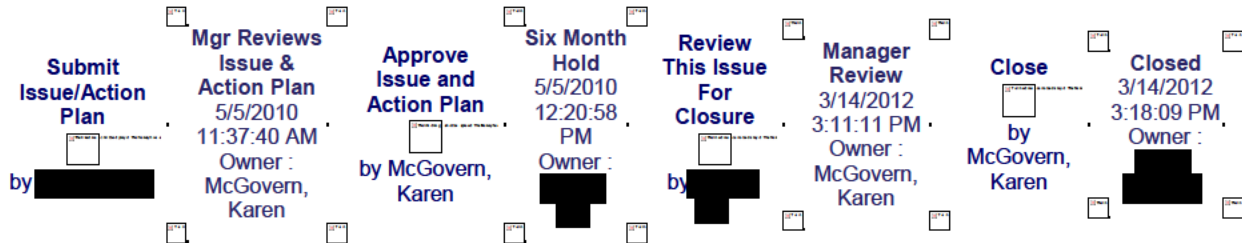
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[Contact \(/utilisphere/contact\)](/utilisphere/contact) · [Terms \(/terms\)](/terms) · [Company \(/company\)](/company)



EXHIBIT 14

State Change History



Standard Section

Audit Name:	Timeliness of Locating and Marking Underground Facilities
Current Audit Report Number:	010-777
Title:	Renegotiating Excavation Start Dates
Title	
Audit or Issue name	
Line Of Business:	Utility
Risk:	Medium Risk
Issue Description:	IA assessed the controls for documenting and reporting the timeliness of the Utility's response for locating and marking its underground assets for third-party excavators. IA and QA concluded that the database configuration, along with controls and processes used by the Utility to document this work, were not sufficient to ensure accurate reporting of the Utility's on-time results. IA also concluded that the 99 percent on-time result should not be relied upon as an accurate indicator of the Utility's performance.
Issue Description	
Detailed description of the issue as identified in the original audit	
Action Plan:	Action plan updated on Wednesday, June 2, 2010:
Action Plan	
Plan agreed to by Management and IA for addressing this issue	
Item Number:	NCR 20
Subject:	Negotiated New Start Time
Description:	3.8% of all September 2009 tickets indicated that a new start date/time was negotiated. The majority of these tickets were entered into IRTHnet as "negotiated" primarily as a means to keep the ticket from going overdue. As a result, incorrect data is being used to report on-time results.
Response:	Incorporate better controls into IRTHnet to prevent incorrect data. Explore option to add this as a QC item when QC program is developed.
Response Owner:	Robert Fassett
Estimated Delivery Date:	May 11, 2011
The Utility will develop an action plan by May 31, 2010 to address this issue.	
AIC:	[Redacted]
AIC	
Auditor In Charge	
Principal Auditor:	(None)
Follow-Up Coordinator:	[Redacted]
Follow-Up Auditor:	(None)

Follow-Up Auditor

Auditor assigned by Follow-Up Coordinator to follow up on the issue

<input type="checkbox"/> Asst. Follow-Up Auditor: Asst. Follow-Up Auditor	(None)	<input type="checkbox"/> IA Director:	Cairns, Stephen J.
Assistant Auditors are sometimes assigned by the AIC			
<input type="checkbox"/> IA Manager:	McGovern, Karen	<input type="checkbox"/> IA Support Staff:	(None)
<input type="checkbox"/> Client Officer's Direct Report:	Hayes, William	<input type="checkbox"/> Client VP/ Director / Manager:	[REDACTED]
<input type="checkbox"/> Client Manager: Client Manager	[REDACTED]	<input type="checkbox"/> Client Contact: Client Contact	[REDACTED]
Individual within the client organization who has the authority to provide status updates on behalf of that organization - usually Manager level or above		Client subject matter expert for this issue	
<input type="checkbox"/> Attorney: Attorney	(None)		
Attorney assigned to the follow-up audit - normally used for Attorney Work-Product type audits			
<input type="checkbox"/> Issue Origination Date: Issue Origination Date	4/28/2010		
Date the issue was identified (normally the same date as the audit report)			
<input type="checkbox"/> Original Client Commitment Date: Original Client Commitment Date	5/31/2010	<input type="checkbox"/> Original Client Milestone Date: Original Client Milestone Date	
Original date provided by client for completing the entire action plan for this issue		Original date provided by client for achieving an established milestone, on the way to completing the action plan for this issue	
<input type="checkbox"/> Current Client Commitment Date: Current Client Commitment Date	11/30/2011	<input type="checkbox"/> Current Client Milestone Date: Current Client Milestone Date	1/1/2029
Revised date provided by client for completing the entire action plan for this issue		Revised date provided by client for achieving an established milestone, on the way to completing the action plan for this issue	
<input type="checkbox"/> Milestone/Commitment Date History: Milestone/Commitment Date History			
Enter all revisions to Client Commitment and Milestone Dates along with client reason for the delay			
<input type="checkbox"/> Public Comments: Public Comments			
Field for providing status updates or comments on this issue			
<input type="checkbox"/> Auditor Notes: Auditor Notes	3/14/2012 3:11:11 PM - [REDACTED] This item has been re-written as TeamTrack issue 146039 in the		

Used for comments intended for IA viewing only.

2011 Damage Prevention audit, and may now be closed in this report.

☐ **Issue Effective Close Date:** 3/14/2012
Issue Effective Close Date

Date issue is to be considered closed for reporting purposes (may be different than the date it was actually closed in TeamTrack)

☐ **Current Audit Report Date:** 4/28/2010

☐ **System Section**

☐ **Managers and Up with Access:** (None)
Managers and Up with Access

Multi User field that contains all Managers, Directors, and VPs with access to this Issue

☐ **Submit Date:** 5/5/2010
Submit Date 11:37:40 AM

The date that the item was created/submitted

☐ **Last Modified Date:** 3/14/2012
Last Modified Date 3:18:09 PM

The last time the item's data was changed

☐ **Last Modifier:** McGovern, Karen
Last Modifier

The last person to change the data in this item

☐ **Last State Change Date:** 3/14/2012
Last State Change Date 3:18:09 PM

The last time the state of this item was changed

☐ **Last State Changer:** McGovern, Karen
Last State Changer

The last person to change the state of this item

☐ **Original Audit Report Number:** 010-777
Original Audit Report Number

Used to track the originating (parent) audit for all follow-up audits.

☐ **Follow Up Audit Number:** |
☐ **Aging Of Open Issues (In Months):** 0 - 5

☐ **Link(s) to Audit or Issue(s)**

- ☐ [128373: Timeliness of Locating and Marking Underground Facilities](#)
☐ [Current Item]

☐ **Change History**

3/14/2012 3:18:09 PM by McGovern, Karen

Close Date Changed From Unassigned To 3/14/2012 3:18:09 PM

Active/Inactive Changed From Active To Inactive

State Changed From Manager Review To Closed Via Transition: Close

Secondary Owner Changed From [REDACTED] To [REDACTED]

Owner Changed From McGovern, Karen To [REDACTED]

Last State Changer Changed From [REDACTED] To McGovern, Karen

Last State Change Date Changed From 3/14/2012 3:11:11 PM To 3/14/2012 3:18:09 PM

Last Modifier Changed From [REDACTED] To McGovern, Karen

Last Modified Date Changed From 3/14/2012 3:11:11 PM To 3/14/2012 3:18:09 PM

Issue Effective Close Date Changed From Unassigned To 3/14/2012

3/14/2012 3:11:11 PM by Moore, Jim

State Changed From Six Month Hold To Manager Review Via Transition: Review This Issue For Closure

Secondary Owner Changed From [REDACTED] To [REDACTED]

Owner Changed From [REDACTED] To McGovern, Karen

Last State Changer Changed From McGovern, Karen To [REDACTED]

Last State Change Date Changed From 5/5/2010 12:20:58 PM To 3/14/2012 3:11:11 PM

Last Modifier Changed From [REDACTED] To [REDACTED]

Last Modified Date Changed From 6/8/2011 10:45:00 AM To 3/14/2012 3:11:11 PM
Auditor Notes Changed From " To '[Appended:] Theis item has been re-written as TeamTrack issue 146039 in the 2011 Damage Prevention audit, and may now be closed in this report. '

6/8/2011 10:48:36 AM by (None)

Contact Changed From Johnson, Kirk To Hayes, William

6/8/2011 10:45:00 AM by [REDACTED]

Last Modified Date Changed From 6/8/2011 10:43:17 AM To 6/8/2011 10:45:00 AM

IA Director Changed From Cherry, Sara To Cairns, Stephen J.

6/8/2011 10:43:17 AM by [REDACTED]

Last Modified Date Changed From 6/8/2011 10:08:33 AM To 6/8/2011 10:43:17 AM

Client VP/ Director / Manager Changed From [REDACTED] To [REDACTED]

Client Officer's Direct Report Changed From Johnson, Kirk To Hayes, William

6/8/2011 10:08:33 AM by [REDACTED]

Last Modified Date Changed From 5/6/2011 10:10:38 AM To 6/8/2011 10:08:33 AM

Client Officer Changed From Salas, Edward To Stavropoulos, Nickolas

5/6/2011 10:10:38 AM by Huey, Candice

Secondary Owner Changed From Pefferman, Joyce To [REDACTED]

Client Contact Changed From Pefferman, Joyce To [REDACTED]

Client Manager Changed From Pefferman, Joyce To [REDACTED]

Last Modified Date Changed From 5/6/2011 10:07:28 AM To 5/6/2011 10:10:38 AM

5/6/2011 10:07:28 AM by [REDACTED]

Last Modified Date Changed From 1/6/2011 2:03:42 PM To 5/6/2011 10:07:28 AM

Current Client Commitment Date Changed From 5/11/2011 To 11/30/2011

1/6/2011 2:03:42 PM by [REDACTED]

Follow-Up Coordinator Changed From [REDACTED] To [REDACTED]

Last Modifier Changed From [REDACTED] To [REDACTED]

Last Modified Date Changed From 10/20/2010 1:52:32 PM To 1/6/2011 2:03:42 PM

10/20/2010 1:55:08 PM by [REDACTED]

Contact Changed From [REDACTED] To Johnson, Kirk

10/20/2010 1:52:32 PM by [REDACTED]

Last Modified Date Changed From 8/5/2010 8:31:04 AM To 10/20/2010 1:52:32 PM

Client Officer's Direct Report Changed From [REDACTED] To Johnson, Kirk

8/5/2010 8:33:28 AM by (None)

Contact Changed From [REDACTED] - 223-4603 To [REDACTED]

8/5/2010 8:31:04 AM by [REDACTED]

Last Modified Date Changed From 6/2/2010 3:49:32 PM To 8/5/2010 8:31:04 AM

Client Officer's Direct Report Changed From [REDACTED] (CGT) To [REDACTED]

6/2/2010 3:49:32 PM by [REDACTED]

Last Modified Date Changed From 6/2/2010 3:49:10 PM To 6/2/2010 3:49:32 PM

Current Client Commitment Date Changed From 5/31/2010 To 5/11/2011

6/2/2010 3:49:10 PM by [REDACTED]

Last Modified Date Changed From 5/5/2010 12:56:42 PM To 6/2/2010 3:49:10 PM

Action Plan Changed From '[Original Text]' To '[Prepended:]Action plan updated on Wednesday, June 2, 2010: Item Number: NCR 20 Subject: Negotiated New Start Time Description: 3.8% of all September 2009 tickets indicated that a new start date/time was negotiated. The majority of these ticket[...]

5/5/2010 12:56:42 PM by [REDACTED]

Last Modifier Changed From McGovern, Karen To [REDACTED]

Last Modified Date Changed From 5/5/2010 12:20:58 PM To 5/5/2010 12:56:42 PM

Current Client Milestone Date Changed From Unassigned To 1/1/2029

Current Client Commitment Date Changed From Unassigned To 5/31/2010

5/5/2010 12:20:58 PM by McGovern, Karen

State Changed From Mgr Reviews Issue & Action Plan To Six Month Hold Via Transition: Approve Issue and Action Plan

Secondary Owner Changed From [REDACTED] To Pefferman, Joyce

Owner Changed From McGovern, Karen To [REDACTED]

Last State Changer Changed From [REDACTED] To McGovern, Karen

Last State Change Date Changed From 5/5/2010 11:37:40 AM To 5/5/2010 12:20:58 PM

Last Modifier Changed From [REDACTED] To McGovern, Karen

Last Modified Date Changed From 5/5/2010 11:37:40 AM To 5/5/2010 12:20:58 PM

5/5/2010 11:39:08 AM by (None)

Contact Changed From [REDACTED] To [REDACTED] - [REDACTED]

EXHIBIT 15

PACIFIC GAS AND ELECTRIC COMPANY
Gas Operations Data Response

PG&E Data Request Index No.:	10707		
Request Date:	03-27-2017	Date Sent:	04-19-2017
Requesting Party:	GOST-CPUC SED/CPSD		
External Requester:	Daryl Gruen	PG&E Contact:	Jon Pendleton

PG&E is providing this response pursuant to Public Utilities Code §583 because this response and/or the attached documents contain information that should remain confidential and not be subject to public disclosure as it contains one or more of the following: critical infrastructure information that is not normally provided to the general public, the dissemination of which poses public safety risks (pursuant to the Critical Infrastructures Information Act of 2002, 6 U.S.C. §§131-134); sensitive personal information pertaining to PG&E employees; customer information; or commercially sensitive/proprietary information. This information is highlighted yellow below and, if feasible, in the referenced attachments.

See attached declaration supporting confidential designation ("Index 10707_Confidentiality Declaration.pdf").

PG&E's responses to following SED data requests are intended to comply with the Instructions provided on March 27, 2017. PG&E has no objection to SED's instructions that restate Commission Rules of Practice and Procedure, such as the duty of candor, since PG&E is required to follow such rules regardless of such instructions. Also, please note that PG&E has not Bates-labeled or indexed the attachments to its responses below, as the attachments are not voluminous, but has instead labeled each attachment with the applicable Index/Attachment Number.

Per the Instructions, PG&E has provided the name of the person(s) answering each request, their title, the name and title of the person to whom they report, and contact information. Where an instance of Not Applicable is present, PG&E is still gathering this information and a full response is still pending. PG&E will provide the name of the person(s) answering for those requests, their title, the name and title of the person to whom they report, and contact information once complete.

Question	Responded By	Title	Contact	Reports To	Title
1	Not Applicable	N/A	N/A	N/A	N/A
2-5	Simon van Oosten	Supervisor, Gas Methods and Procedures	SXVX@pge.com	Lenny Caldwell	Manager, Gas Methods & Procedures
6	Not Applicable	N/A	N/A	N/A	N/A

Question	Responded By	Title	Contact	Reports To	Title
Parts B & C					
6 Parts A, D-G	Jeff Carroll	Superintendent, Gas T&D Locate and Mark	JLC5@pge.com	Donnie Jue	Director, Gas T&D Ops Compliance (interim, as of March 20, 2017)
7-12	Jeff Carroll	Superintendent, Gas T&D Locate and Mark	JLC5@pge.com	Donnie Jue	Director, Gas T&D Ops Compliance (interim, as of March 20, 2017)
13-14	Not Applicable	N/A	N/A	N/A	N/A
15-31	Jeff Carroll	Superintendent, Gas T&D Locate and Mark	JLC5@pge.com	Donnie Jue	Director, Gas T&D Ops Compliance (interim, as of March 20, 2017)
15-18	Not Applicable	N/A	N/A	N/A	N/A
32	Not Applicable	N/A	N/A	N/A	N/A

Re: Locate and Mark Staffing

QUESTION 10707.01: 1. Please provide a spreadsheet, broken down by month, showing the data for the range of months requested in each question, with the following:

- A. In column 1, provide a list showing the number of personnel, including PG&E employees and contractors, working on locating and marking PG&E's natural gas pipelines ("locating and marking") in each month, beginning January 2012, and continuing through February, 2017.
- B. In column 2, using the count of personnel who worked on locating and marking in response to question 1A, please provide a list showing total number of personnel hours worked on locating and marking for each month beginning in January 2012 and continuing through February 2017.
- C. In column 3, please provide a list showing the total number of PG&E employees who worked on locating and marking each month beginning in January 2012, and continuing through February, 2017.
- D. In column 4, please provide a list showing the number of PG&E contractors who worked on locating and marking each months beginning in January 2012, and continuing through February 2017.
- E. In column 5, please provide a list showing the total number of PG&E employee hours worked on locating and marking in each month from January 2012 through February

2017. Please make sure the total number of hours were worked by those employees identified in response to question 1C.

- F. In column 6, please provide a list showing the total number of contractor hours worked on locating and marking in each month from January 2012 through February 2017. Please make sure the total number of hours were worked by those contractors identified in response to question 1D.
- G. In column 7, please provide the following: Of those employees identified in response to question 1C, please provide a list for each month from January 2012 to February 2017 showing how many were operator qualified.
- H. In column 8, please provide the following: Of those contractors identified in response to question 1D, please provide a list for each month from January 2012 to February 2017 showing how many were operator qualified.
- I. In column 9, please provide the following: Of those employee hours spent on locating and marking in response to question 1E, please provide a list for each month from January 2012 to February 2017 showing how many hours were performed by operator qualified employees.
- J. In column 10, please provide the following: Of those contractor hours spent on locating and marking in response to question 1F, please provide a list for each month from January 2012 to February 2017 showing how many hours were performed by operator qualified contractors.
- K. In column 11, please provide the following: Of those employee hours spent on locating and marking in response to question 1E, please provide a list for each month from January 2012 to February 2017 showing how many hours were performed by personnel who were not operator qualified.
- L. In column 13, please provide the following: Of those contractor hours spent on locating and marking in response to question 1F, please provide a list for each month from January 2012 to February 2017 showing how many hours were performed by contractors who were not operator qualified.
- M. Please provide the following: For each month from January 2012 to February 2017, please identify the staff in charge of creating PG&E locate and mark tickets in each district. Please ensure that there is a separate column provided for each district with the district name in the title of the column.
Please ensure that each staff person identified has their title included.
- N. Please provide the following: For each month from January 2012 to February 2017, please identify the staff in charge of creating PG&E locate and mark tickets in each division. Please ensure that there is a separate column provided for each division with the division name in the title of the column. Please ensure that each staff person identified has their title included.
- O. Please provide the following: For each month from January 2012 to February 2017, please identify the name of each PG&E personnel member in each division and district, who had authority over PG&E employees or contractors, who in turn did work relating to PG&E's locate and mark program. (This list should include PG&E personnel who oversaw or was in charge of others in a chain of command that had authority over PG&E employees or contractors). For each title of PG&E personnel in charge of the staff creating each PG&E locate and mark ticket in each division, please ensure that there is a separate column provided for each division and district with the division name (or district name) in the title of the column. Please ensure that the title of each personnel member with authority over a PG&E employee or contractor has their title included. The list of those "in charge" should include, but not be limited to:
 - a. Director;

- b. Manager;
 - c. Superintendent;
 - d. Supervisor.
 - e. If anyone has authority over locate and mark employees/contractors below the level of "Director" are not mentioned immediately above, please provide those job title.
 - f. Please provide appropriate organizational charts that illustrate the relationships requested above.
- P. Please provide the following: For each month from January 2012 to February 2017, please identify each supervisor in charge of the staff creating each PG&E locate and mark ticket in each district.
Please ensure that there is a separate column provided for each district with the district name in the title of the column.

RESPONSE 10707.01: PG&E is collecting this information and anticipates delivering it May 22, 2017.

Re: Locate and Mark Procedures

QUESTION 10707.02: Please provide PG&E's procedures that applied to locating and marking in 2012.

RESPONSE 10707.02: Refer to the table below for procedures pertaining to locate and mark in 2012. The referenced attachments are provided in "*Index 10707-02_Attachments.zip*".

Procedure	Rev	Publication Date	Attachment
WP4412-01: Operating Procedures for Locating Instruments (superseded by TD-4412P-01)	0	8/2009	"Index 10707-02_WP4412-01.pdf"
TD-4412P-01: Operating Procedures for Locating Instruments	0	12/31/2012	"Index 10707-02_TD-4412P-01.pdf"
WP4412-02: Locating Instruments Calibration Verification and Repair Procedures (superseded by TD-4412P-02)	0	8/2009	"Index 10707-02_WP4412-02.pdf"
TD-4412P-02: Locating Instruments Calibration Verification and Repair Procedures	0	12/31/2012	"Index 10707-02_TD-4412P-02.pdf"
WP4412-03: Marking and Locating PG&E Underground Facilities (superseded by TD-4412P-03)	0	8/2009	"Index 10707-02_WP4412-03.pdf"
TD-4412P-03: Marking and Locating PG&E Underground	1	4/11/2012	"Index 10707-02_TD-4412P-03.pdf"

Facilities			
TD-4412P-03 Attachment 1: Determining When a Field Meet and/or Standby is Required	0	4/11/2012	"Index 10707-02_TD-4412P-03 Att1.pdf"
WP4412-04: Field Meets and Standby – Damage Prevention	0	8/2009	"Index 10707-02_WP4412-04.pdf"

QUESTION 10707.03: Does the Damage Prevention Handbook published in October, 2013 contain the PG&E locate and mark procedures until the procedures issued in October 2015 became effective? If not, please identify and provide the reference with the applicable procedures that were effective during that period?

RESPONSE 10707.03: The Damage Prevention Handbook was revised between October 2013 and October 2015. Both revisions contained the effective Locate and Mark procedures during that timeframe, with the exception of the tech down procedure which was published in July 2014. Refer to the below bullet points for details regarding these two revisions and the tech down procedure. The referenced attachments are provided in "Index 10707-03 Attachments_CONF.zip".

- Revision 0 was effective from October 2013 until March 2014 (see attachment "Index 10707-03_Damage Prevention Handbook - Rev0_CONF.pdf").
 - Note attachment "Index 10707-03_Damage Prevention Handbook – Rev0_CONF.pdf" is designated confidential because it contains confidential customer-specific data on pages 29, 37, 40, 45, and 228. This information is outlined in red in the attachment. In addition, this attachment is designated confidential because it contains critical infrastructure on pages 55 and 168. This information is outlined in red in the attachment.
- Revision 1 was effective from March 2014 until October 2015 (see attachment "Index 10707-03_Damage Prevention Handbook – Rev1_CONF.pdf").
 - Note attachment "Index 10707-03_Damage Prevention Handbook – Rev1_CONF.pdf" is designated confidential because it contains confidential customer-specific data on pages 29, 37, 40, 45, and 228. This information is outlined in red in the attachment. In addition, this attachment is designated confidential because it contains critical infrastructure on pages 55 and 168. This information is outlined in red in the attachment.
- In July 2014, PG&E published the 'tech down' process in bulletin TD-5811B-001:
 - "Index 10707-03_TD-5811B-001.pdf"
 - "Index 10707-03_TD-5811P-101-F01.docx"
 - "Index 10707-03_TD-5811P-101-F02.docx"
 - "Index 10707-03_TD-5811P-101-JA03.pdf"
 - "Index 10707-03_TD-5811P-101-JA04.pdf"

For the current version (Rev2) published in October 2015, the Damage Prevention Handbook was renamed the Locate and Mark Handbook (see attachment "Index 10707-03_TD-5811M Rev2 Locate and Mark Handbook_CONF.pdf").

Note attachment "Index 10707-03_TD-5811M Rev2 Locate and Mark Handbook_CONF.pdf" is designated confidential because it contains confidential customer-specific data on pages 23, 31, 34, 39, 236, 305, and 339. This information is outlined in red in the attachment. In addition, this

attachment is designated confidential because it contains critical infrastructure on pages 39, 87, 171, 181, 236, and 339. This information is outlined in red in the attachment.

QUESTION 10707.04: Please provide the copies of the PG&E locate and mark procedures for 2015.

RESPONSE 10707.04: See Response 10707.03.

QUESTION 10707.05: Has PG&E's locate and mark procedures been updated since 2015? If so, please provide all updates.

RESPONSE 10707.05: Refer to the below table for Locate and Mark document updates 2016 to present.

Procedure	Rev	Publication Date	Attachment
TD-5811B-003: Determining the Scope of a Locate	0	8/8/2016	<i>"Index 10707-05_TD-5811B-003 - Rev0.pdf"</i>

Additionally, a pilot was implemented in 2016 to be used as part of PG&E's "Super Gas Operations" efforts.

Procedure	Rev	Publication Date	Attachment
TD-5811B-004: Changes to Locate and Mark for Super Gas Operations	0	11/1/2016	<i>"Index 10707-05_TD-5811B-004 - Rev0.pdf"</i>
TD-5811B-004: Changes to Locate and Mark for Super Gas Operations	1	2/23/2017	<i>"Index 10707-05_TD-5811B-004 - Rev1.pdf"</i>

Note, the referenced attachments are provided in *"Index 10707-05_Attachments.zip"*.

Re: IRTHNet Data

QUESTION 10707.06: Please provide the following information regarding PG&E's IRTHNet database in another spreadsheet organized in a similar fashion to the spreadsheet requested in question 1 above. Specifically, for each question, provide a breakdown of entries by month, starting with January, 2012 and ending in February, 2017.

- A. Confirm that the entries "Phone Call", "Field Meeting" and "Voice Mail" describe all of the possible ways the locate and mark personnel and contractors communicated with third party excavators. If these terms are incorrect, please correct them. If these terms are incomplete, please supplement them so that there is a complete and accurate list.
- B. Based upon the complete and accurate list of entries provided in response to question 6A, please provide:

- i. The percentage of communications marked as occurring via phone call broken down by month starting with January, 2012 and ending in February, 2017.
 - ii. The percentage of communications marked as occurring via field meeting broken down by month starting with January, 2012 and ending in February, 2017.
 - iii. The percentage of communications marked as occurring via voice mail broken down by month starting with January, 2012 and ending in February, 2017.
 - iv. The percentage of each additional communication identified in the list provided in response to question 6a, broken down by month starting with January, 2012 and ending in February, 2017.
- C. Based upon the complete and accurate list of entries provided in response to question 6A, please provide:
 - i. The total number of communications that occurred between PG&E personnel and third party excavators regarding locate and mark matters, broken down by month starting with January, 2012 and ending in February, 2017.
 - ii. The total number of communications that occurred between PG&E personnel (who were not operator qualified regarding locate and mark matters and procedures) and third party excavators regarding locate and mark matters, broken down by month starting with January, 2012 and ending in February, 2017.
 - iii. The total number of communications that occurred between PG&E contractors and third party excavators regarding locate and mark matters starting with January, 2012 and ending in February, 2017.
 - iv. The total number of communications that occurred between PG&E contractors (who were not operator qualified regarding locate and mark matters and procedures) and third party excavators regarding locate and mark matters, broken down by month starting with January, 2012 and ending in February, 2017.
- D. Between January, 2012 and February, 2017, were communications between PG&E personnel/contractors and third party excavators recorded as entries in a media or databases other than IRTNet? If so, please identify all such media.
- E. Between January, 2012 and February, 2017, was an entry made into IRTNet each time there was a communication between PG&E personnel/contractors and a third party excavator?
- F. If the answer to question 6E is anything other than an unqualified yes, between January, 2012 and February, 2017, under what circumstances did PG&E personnel/contractors communicate with a third party excavator without an entry for such communications being recorded into IRTNet?
- G. If the answer to question 6E is anything other than an unqualified yes, between January, 2012 and February, 2017, broken down by month, identify how many instances there was a communication between PG&E personnel/contractors and third party excavators that was not recorded in IRTNet? (Please add this to the spreadsheet provided in response to question 6.)

RESPONSE 10707.06: As agreed upon during the April 4, 2017, meeting between PG&E and SED, PG&E is providing the below information pertaining to renegotiated tickets data.

- **Part A:** PG&E confirms that the following three methods are the only selectable methods of contact when Renegotiating a New Start Time on a ticket in IRTNet: Phone Call, Field Meet, and Voicemail:
 - Phone Call is used when there is a direct phone conversation with the excavator discussing the newly agreed upon start time/date.
 - Field Meet is used when there is a face to face conversation with the excavator discussing the newly agreed upon start time/date.

- Voice Mail is used when the Locator left a message with the excavator describing a previously agreed upon start time/date.
- **Parts B and C:** Per the April 4, 2017 meet and confer discussion between SED and PG&E, PG&E will be providing a proposed alternative approach to responding to this request and the timing for providing a response. PG&E expects to provide this proposal by April 24, 2017.
- **Part D:** No, IRTHNet is the only system of record for USA Ticket Information used by PG&E.
- **Part E:** From November 2012 to present, each time a ticket was responded to with a "Notification of New Start Time", the method of contact with the excavator is required to be selected in the response. Prior to November 2012, the Notification of New Start Time response was not a selectable option within IRTHnet. Since the Notification of New Start Time response was not a selectable option within IRTHnet, there was no dedicated method of documenting communications between PG&E and third party excavators regarding renegotiated start times/dates for this time period.
- **Part F:** Not Applicable.
- **Part G:** Not Applicable.

Re: Late Tickets Shown in IRTHNet

QUESTION 10707.07: SED understands that in 2013, PG&E had 13547 late tickets; in 2014 PG&E had 13,391 late tickets; in 2015, PG&E had 3,385 late tickets; and in 2016, PG&E had 47 late tickets.

- a. Please confirm this is correct. If it is not, please provide the correct numbers for each year.
- b. Please provide the total number of late tickets in 2012.

RESPONSE 10707.07: Please see the table below for the number of late tickets between 2012 and 2016:

Year	Number of Late Tickets
2012	4,623
2013	13,547
2014	13,391
2015	3,385
2016	44 ¹
¹ As indicated in attachment "Index 10516-04_2016 Late Tickets.xlsx" delivered to SED in Response 10516.04 on February 8, 2017.	

QUESTION 10707.08: Please provide the following information regarding PG&E's IRTHNet database in another spreadsheet organized in a similar fashion to the spreadsheet requested in

questions 1 and 6 above. Specifically, for each question, provide a breakdown of entries by month, starting with January, 2012 and ending in February, 2017.

- a. Please provide the total number of late tickets for each division beginning in January, 2012 and ending in February, 2017.
- b. Please provide the total number of late tickets for each district beginning in January, 2012 and ending in February, 2017.

RESPONSE 10707.08:

- a) PG&E has prepared a yearly breakdown of late tickets¹ for each division, 2012 to February 2017. See attachment "*Index 10707-08_2012 - Feb 2017 Total Late - Division.xlsx*." PG&E is still gathering late ticket information broken down by month for each division and anticipates delivering it by May 22, 2017.
- b) PG&E does not have data available for late tickets broken down by districts. The data source used includes districts in the counts for divisions and cannot be separated.

Re: Renegotiated Tickets Shown in IRTHNet

QUESTION 10707.09: SED understands that in 2013, PG&E had 11,744 renegotiated tickets; in 2014 PG&E had 23,471 renegotiated tickets; in 2015, PG&E had 36,441 renegotiated tickets; and in 2016, PG&E had 29,760 renegotiated tickets.

- a. Please confirm this is correct. If it is not, please provide the correct numbers for each year.
- b. Please provide the total number of renegotiated tickets in 2012.

RESPONSE 10707.09: Please see the table below for the number of renegotiated tickets between 2012 and 2016:

Year	Number of Renegotiated Tickets
2012	2,119
2013	11,744
2014	23,471
2015	36,441
2016	29,767 ¹
¹ PG&E would like to correct the renegotiated ticket totals previously reported in Response 10516.03 (delivered to SED on February 8, 2017); upon further research into the renegotiated tickets, PG&E identified an additional seven renegotiated tickets in 2016.	

QUESTION 10707.10: Please provide the following information regarding PG&E's IRTHNet database in another spreadsheet organized in a similar fashion to the spreadsheet requested in

¹ Late ticket data are only available in IRTHnet for 60 days. Since January 2016, PG&E has collected this data from IRTHnet to generate its late ticket statistics. For late ticket data prior to January 2016, PG&E utilizes the Organizational Reporting Initiative (ORI), which is a repository for portions of IRTHnet data and SAP data.

questions 1, 6 and 8 above. Specifically, for each question, provide a breakdown of entries by month, starting with January, 2012 and ending in February, 2017.

- a. Please provide the total number of renegotiated tickets for each division beginning in January, 2012 and ending in February, 2017.
- b. Please provide the total number of renegotiated tickets for each district beginning in January, 2012 and ending in February, 2017.

RESPONSE 10707.10:

- a) PG&E has prepared a yearly breakdown of renegotiated tickets² for each division, 2012 to February 2017. See attachment "*Index 10707-10_2012 - Feb 2017 Total Renegotiated - Division.xlsx*." PG&E is still gathering renegotiated ticket information broken down by month for each division and district and anticipates delivering it May 22, 2017.
- b) PG&E has prepared a yearly breakdown of renegotiated tickets² for each district, 2012 to February 2017. See attachment "*Index 10707-10_2012 - Feb 2017 Total Renegotiated - District.xlsx*." PG&E is still gathering renegotiated ticket information broken down by month for each division and district and anticipates delivering it May 22, 2017.

Re: Total Late and Renegotiated Tickets (Not only those Shown in IRTHNet)

QUESTION 10707.11: Please provide the following information regarding PG&E's total number of late and renegotiated tickets in another spreadsheet in a similar fashion to the spreadsheet requested in questions 1, 6, 8, and 10 above. Specifically, for each question, provide a breakdown of entries by month, starting with January, 2012, and ending in February, 2017.

- a. Please provide the total number of renegotiated tickets for each division beginning in January, 2012 and ending in February, 2017.
- b. Please provide the total number of renegotiated tickets for each district beginning in January, 2012 and ending in February, 2017.
- c. Please provide the total number of late tickets for each district beginning in January, 2012 and ending in February, 2017.
- d. Please provide the total number of late tickets for each division beginning in January, 2012 and ending in February, 2017.

RESPONSE 10707.11:

- a) See Response 10707.10.
- b) See Response 10707.10.
- c) See Response 10707.08.
- d) See Response 10707.08.

QUESTION 10707.12: Please provide the following information regarding PG&E's IRTHNet database in another spreadsheet organized in a similar fashion to the spreadsheet requested in questions 1, 6, 8 10 and 11 above. Specifically, for each question, provide a breakdown of entries by month, starting with January, 2012 and ending in February, 2017.

- a. Please provide the names of staff who created tickets in the Humboldt Division beginning in January, 2012 and ending in February, 2017.

² PG&E only utilizes IRTHnet for renegotiate ticket statistics.

- b. Please provide the names of staff who created tickets in all districts overlapping the territory of the Humboldt Division beginning in January, 2012 and ending in February, 2017.

RESPONSE 10707.12: PG&E clarified with SED during its meeting on April 4, 2017, that PG&E staff does not create tickets; but rather, tickets are created through USA. In response, SED asked for clarification regarding the process of entering the USA ticket information into IRTHNet.

PG&E does not add, alter, or enter any information received in USA tickets. Tickets come directly from the call center into IRTHNet, and PG&E cannot change any of the ticket text. PG&E can only enter information or comments in response to those tickets which we receive.

Re: Keys Reports

QUESTION 10707.13: Please provide all “Keys” reports

- a. In 2012;
- b. In 2013;
- c. In 2014;
- d. In 2015;
- e. In 2016; and
- f. In 2017?

RESPONSE 10707.13: During the meeting between PG&E and SED on April 4, 2017, PG&E proposed to provide the T&D Operations Compliance results, including locate and mark data, contained in PG&E’s Keys reports from 2012-2017 as requested in Index No. 10658 (verbal request from Sikandar Khatri during on-site meetings the week of March 13, 2017). However, based on SED’s email of April 7, 2017 clarifying that it is still requesting all of the Keys reports, and to avoid any possibility of PG&E’s team overlooking and failing to highlight data in the lengthy 2012-2017 Keys reports that SED might find relevant to its preliminary locate and mark investigation, PG&E believes it is preferable to provide the Keys reports in their entirety. PG&E also will provide an overview of how locate and mark data has been included in Keys reports from 2012-2017 to aid SED in its review. PG&E is collecting this information and anticipates delivering it by May 10, 2017.

QUESTION 10707.14: If the Keys reports must be marked as confidential, please do so and provide the reports as such pursuant to all applicable requirements. SED expects all Keys reports to be provided in their confidential form.

RESPONSE 10707.14: See Response 10707.13.

Re: Incentives to Avoid Creating Late Tickets

QUESTION 10707.15: Please list the job titles of all PG&E personnel who had authority over PG&E employees or contractors, who in turn did work relating to PG&E’s locate and mark program. For each job title, please provide the number of employees who had the job title. The job titles requested should include, but not be limited to those who had the title and/or served the role of:

- a. Director;
- b. Manager;

- c. Superintendent;
- d. Supervisor.
- e. If anyone has authority over locate and mark employees/contractors below the level of "Director" are not mentioned immediately above, please provide those job title.

RESPONSE 10707.15: Prior to 2014, the L&M function was imbedded in the local Maintenance and Construction (M&C) division organization. PG&E is still gathering this information for 2012 to 2013 and anticipates providing it May 31, 2017.

In 2014, the L&M function was placed under the newly created Compliance Programs Director and the Locate & Mark Superintendent. See the below table for a list of job titles for PG&E personnel under the Compliance Programs Director within the L&M function 2014 to February 2017.

2014* Compliance Programs Locate and Mark Organization	
Position	Number of Employees
Director, T&D Ops Compliance	1
Superintendent, Gas T&D Locate and Mark	1
Supervisor Gas T&D Locate and Mark	12
* Annual "snapshots" of historical organization charts record the organization's status as of the end of the year. Number of employees given is as of 12/31/2014.	

2015* Compliance Programs Locate and Mark Organization	
Position	Number of Employees
Director, T&D Ops Compliance	1
Superintendent, Locate and Mark	2
Supervisor, Gas T&D Locate and Mark	13
* Annual "snapshots" of historical organization charts record the organization's status as of the end of the year. Number of employees given is as of 12/31/2015.	

2016* Compliance Programs Locate and Mark Organization	
Position	Number of Employees

Director, T&D Ops Compliance	1
Superintendent, Locate and Mark	2
Supervisor, Gas T&D Locate and Mark	15
* Annual "snapshots" of historical organization charts record the organization's status as of the end of the year. Number of employees given is as of 12/31/2016.	

2017* Compliance Programs Locate and Mark Organization	
Position	Number of Employees
Senior Director, Gas T&D Operations	1
Director Compliance Programs	1
Superintendent, Locate and Mark	2
Supervisor, Gas T&D Locate and Mark	17
* Effective March 8, 2017	

Note in 2014 to present, there are some employees who perform locate and mark work within the districts that do not fall under the Compliance Programs Locate and Mark organization. PG&E is still gathering this information and anticipates providing it May 31, 2017.

QUESTION 10707.16: Of those PG&E personnel who had their job title listed in response to question 15, between January, 2012 and February, 2017, did any of them receive questions in their job evaluations relating to the subject of late tickets in the locate and mark program?

RESPONSE 10707.16: All PG&E employees are expected to achieve individual performance goals set each year. The following positions of those listed in Response 10707.15 had goals pertaining to late tickets.

- 2014 Compliance Programs Locate and Mark Organization:
 - Superintendent, Gas T&D Locate and Mark
 - Supervisor Gas T&D Locate and Mark
- 2015 Compliance Programs Locate and Mark Organization:
 - Superintendent, Locate and Mark
 - Supervisor, Gas T&D Locate and Mark
- 2016 Compliance Programs Locate and Mark Organization:
 - Superintendent, Locate and Mark

- Supervisor, Gas T&D Locate and Mark
- 2017 Compliance Programs Locate and Mark Organization:
 - Superintendent, Locate and Mark
 - Supervisor, Gas T&D Locate and Mark

PG&E is still collecting information pertaining to 2012-2013 the local M&C division organization and anticipates providing it May 31, 2017.

PG&E is still collecting information pertaining to employees who perform locate and mark work within the districts that do not fall under the Compliance Programs Locate and Mark organization and anticipates providing it May 31, 2017.

QUESTION 10707.17: If the answer to question 16 is yes, please identify all of the names and titles of the PG&E personnel (including, but not limited to employees and contractors) who, between January, 2012 and February, 2017, received questions relating to the subject of late tickets in the locate and mark program.

RESPONSE 10707.17: PG&E is still collecting this information and anticipates providing it May 31, 2017.

QUESTION 10707.18: If the answer to question 16 is yes, please provide the questions in the job evaluations relating to the subject of late tickets in the locate and mark program.

RESPONSE 10707.18: Refer to the below bullet points for the specific goals of the job titles identified in Response 10707.16.

- 2014 Compliance Programs Locate and Mark Organization:
 - Superintendent, Gas T&D Locate and Mark
 - Goal: Complete 100% of all L&M/Standby work by regulatory timeframe.
 - Supervisor Gas T&D Locate and Mark
 - Goal: Zero Late compliance tags.
- 2015 Compliance Programs Locate and Mark Organization:
 - Superintendent, Locate and Mark
 - Goal: Reduce Late Tickets by 50% system wide by focusing on worst performing divisions.
 - Supervisor, Gas T&D Locate and Mark
 - Goal: Reduce Late tickets to Zero.
- 2016 Compliance Programs Locate and Mark Organization:
 - Superintendent, Locate and Mark
 - Goal: Continue Zero Late Ticket performance
 - Supervisor, Gas T&D Locate and Mark
 - Goal: Continue Zero Late Ticket performance

- 2017 Compliance Programs Locate and Mark Organization:
 - Superintendent, Locate and Mark
 - Goal: Build trust by executing work tickets correctly every time
 - Supervisor, Gas T&D Locate and Mark
 - Goal: Build trust by executing work tickets correctly every time

PG&E is still collecting information pertaining to 2012-2013 the local M&C division organization and anticipates providing it May 31, 2017.

PG&E is still collecting information pertaining to employees who perform locate and mark work within the districts that do not fall under the Compliance Programs Locate and Mark organization and anticipates providing it May 31, 2017.

QUESTION 10707.19: Of those PG&E personnel who had their job title listed in response to question 15, between January 2012 and February, 2017, did any of them receive job evaluations that were at least in part based upon the number of locate and mark program late tickets created by PG&E personnel/contractors under their supervision?

RESPONSE 10707.19: See Response 10707.16.

QUESTION 10707.20: If the answer to question 19 is yes, please identify all of the names and titles of the PG&E employees who received job evaluations that were at least in part based upon the number of locate and mark program late tickets created by PG&E personnel/contractors under their supervision.

RESPONSE 10707.20: See Response 10707.17.

QUESTION 10707.21: Did PG&E provide any incentives for its personnel (including, but not limited to employees and contractors) to avoid creating late tickets when PG&E was late in locating and marking during the period from January, 2012 to the present?

RESPONSE 10707.21: PG&E did not provide incentives for its personnel to avoid creating late tickets from January 2012 to the present. All PG&E employees are expected to achieve individual performance goals set each year. Part of the supervisor role is to provide meaningful and timely feedback on a regular basis to employees about performance, and to coach and mentor employees when specific improvement is required to meet performance expectations and goals. Having goals to reduce late tickets is an appropriate performance goal and should not be considered an incentive.

QUESTION 10707.22: Did any PG&E personnel identified in response to question 15 receive incentives for a reduction in the number of late tickets from the period from January, 2012 to the present?

RESPONSE 10707.22: Not applicable; see response 10707.21.

QUESTION 10707.23: If the answer to question 21 is yes, identify all employees and contractors who received incentives to avoid creating late tickets, and the incentives each received.

RESPONSE 10707.23: Not applicable; see response 10707.21.

QUESTION 10707.24: If the answer to question 21 is yes, identify all personnel who received incentives for a reduction in the number of late tickets, and the incentives each received.

RESPONSE 10707.24: Not applicable; see response 10707.21.

Re: Communication Services

QUESTION 10707.25: Please list each division and district, and whether the locate and mark communications were directed through USA North.

RESPONSE 10707.25: PG&E is providing the information requested for communication services (USA North and DigAlert) within the time period of January 2012 – present.

All PG&E Divisions can receive tickets from USA North. Refer to the below list of PG&E divisions:

Division	Can Receive Tickets from USA North
Central Coast	Yes
DeAnza	Yes
Diablo	Yes
East Bay	Yes
Fresno	Yes
Humboldt	Yes
Kern	Yes
Los Padres	Yes
Mission	Yes
North Bay	Yes
North Valley	Yes
Peninsula	Yes
Sacramento	Yes
San Francisco	Yes
San Jose	Yes

Sierra	Yes
Sonoma	Yes
Stockton	Yes
Yosemite	Yes

Refer to the below table for PG&E Districts and whether they can receive tickets from USA North:

District	Can Receive Tickets from USA North
Burney	Yes
Hinkley (North Only)	Yes
Hinkley (South Only)	No
Kettleman (North and South)	Yes
Los Medanos	Yes
McDonald Island	Yes
Meridian	Yes
Milpitas - Hollister ¹	Yes
Rio Vista	Yes
Topock	No
Tracy	Yes
Willows	Yes
¹ Note, Milpitas and Hollister are identified by two separate registration codes in IRTHnet.	

Additionally, while not a district, PG&E has a registration code titled Trans. Brentwood, which can receive tickets from USA North for areas containing transmission facilities in and near the Diablo and Stockton divisions.

QUESTION 10707.26: Please list each district, and whether the locate and mark communications were directed through DigAlert.

RESPONSE 10707.26: The following Districts receive tickets from DigAlert:

District	Receives Tickets from DigAlert
----------	--------------------------------

Burney	No
Hinkley (North Only)	No
Hinkley (South Only)	Yes
Kettleman (North and South)	No
Los Medanos	No
McDonald Island	No
Meridian	No
Milpitas - Hollister ¹	No
Rio Vista	No
Topock	Yes
Tracy	No
Willows	No
¹ Note, Milpitas and Hollister are identified by two separate registration codes in IRTHnet.	

In addition to the districts listed above, the following divisions/locations can receive tickets from DigAlert:

- Kern Division
 - Ridgecrest, Ca.
 - Taft, Ca.
- Los Padres Division:
 - Santa Maria, Ca.

QUESTION 10707.27: Where locate and mark communications were directed through USA North, was IRTHNet used to record these? If not, what was the counterpart to IRTHNet used to record these communications?

RESPONSE 10707.27: Yes, IRTHNet is the only system used by PG&E to receive and record tickets for both call centers, USA North and DigAlert.

QUESTION 10707.28: Where locate and mark communications were directed through DigAlert, was IRTHNet used to record these? If not, what was the counterpart to IRTHNet used to record these communications?

RESPONSE 10707.28: See Response 10707.27.

QUESTION 10707.29: If IRTHNet was used to record communications in only certain Districts, please list those.

RESPONSE 10707.29: Not applicable.

QUESTION 10707.30: If IRTHNet was used to record communications in only certain Divisions, please list those.

RESPONSE 10707.30: Not applicable.

QUESTION 10707.31: To provide context for questions 25-30, please provide the PG&E policy or procedure that directs the circumstances under which IRTHNet and its counterparts are used. Please provide the rationale for using IRTHNet or a counterpart of IRTHNet.

RESPONSE 10707.31: Not applicable; IRTHNet is the only system used by PG&E to receive and record tickets for both call centers, USA North and DigAlert.

Re: Reports in At-Fault Dig-ins

QUESTION 10707.32: 7. Please provide the following information regarding PG&E's total number of dig-ins in a similar fashion to the spreadsheet requested in questions 1, 6, 8, 10 and 11 above. Specifically, for each question, provide a breakdown of entries by month, starting with January, 2012, and ending in February, 2017.

- a. Provide the total number of dig-ins in each district beginning in January, 2012 and ending in February, 2017.
- b. Provide the total number of dig-ins in each division beginning in January, 2012 and ending in February, 2017.
- c. Provide the total number of dig-ins on renegotiated start tickets in each district, beginning in January, 2012 and ending in February, 2017.
- d. Provide the total number of dig-ins on renegotiated start tickets in each division, beginning in January, 2012 and ending in February, 2017.
- e. Provide the total number of dig-ins on late start tickets in each district, beginning in January, 2012 and ending in February, 2017.
- f. Provide the total number of dig-ins on late start tickets in each division, beginning in January, 2012 and ending in February, 2017.
- g. Of the total number of dig-ins on renegotiated start tickets in each division, identify the total number for which PG&E was at fault, beginning in January, 2012 and ending in February, 2017.
- h. Of the total number of dig-ins on renegotiated start tickets in each district, identify the total number for which PG&E was at fault, beginning in January, 2012 and ending in February, 2017.
- i. Of the total number of dig-ins on late start tickets in each division, identify the total number for which PG&E was at fault, beginning in January, 2012 and ending in February, 2017.
- j. Of the total number of dig-ins on late start tickets in each district, identify the total number for which PG&E was at fault, beginning in January, 2012 and ending in February, 2017.

- k. Of the total number of dig-ins on renegotiated start tickets in each division, identify the total number for which the excavator was at fault, beginning in January, 2012 and ending in February, 2017.
- l. Of the total number of dig-ins on renegotiated start tickets in each district, identify the total number for which the excavator was at fault, beginning in January, 2012 and ending in February, 2017.
- m. Of the total number of dig-ins on late start tickets in each division, identify the total number for which the excavator was at fault, beginning in January, 2012 and ending in February, 2017.
- n. Of the total number of dig-ins on late start tickets in each district, identify the total number for which the excavator was at fault, beginning in January, 2012 and ending in February, 2017.
- o. Of the total number of dig-ins on renegotiated start tickets in each division, identify the total number for which no one was identified at fault, beginning in January, 2012 and ending in February, 2017.
- p. Of the total number of dig-ins on renegotiated start tickets in each district, identify the total number for which no one was identified at fault, beginning in January, 2012 and ending in February, 2017.
- q. Of the total number of dig-ins on late start tickets in each division, identify the total number for which no one was identified at fault, beginning in January, 2012 and ending in February, 2017.
- r. Of the total number of dig-ins on late start tickets in each district, identify the total number for which no one was identified at fault, beginning in January, 2012 and ending in February, 2017.
- s. Of the total number of renegotiated start tickets in each district, how many times did a dig-in occur before the ticket was first recorded as renegotiated, beginning in January, 2012 and ending in February, 2017?
- t. Of the total number of renegotiated start tickets in each division, how many times did a dig-in occur before the ticket was first recorded as renegotiated, beginning in January, 2012 and ending in February, 2017?

RESPONSE 10707.32: Per the April 4, 2017 meet and confer discussion between SED and PG&E, PG&E will be providing a proposed alternative approach to responding to this request and the timing for providing a response. PG&E expects to provide this proposal by April 24, 2017.

EXHIBIT 16



Request

Customer is requesting to have the option of "Voicemail" removed from the Method of Contact field on the Response Screen.

Details

IRTH Solutions will need to remove the "Voicemail" option from the Method of Contact field on the Response Screen within irthnet:

irthnet - Add Response (Complete) - Microsoft Internet Explorer provided by IRTS Solutions, Inc.
https://test.irthsolutions.com/IRTHNet/TicketManager/Response/AddResponse.aspx?type=1

Registration Code: PGESTK (USAN) Facility Type:

Ticket Folder: Angels Camp Folder

Locator: [Redacted] Response: FACILITY MARKED

Locate Time: 12 / 04 / 2012 14 : 52 : 26 Units of Work: 1

New Start Time: 12 / 12 / 2012 14 : 52 : 26 Method of Contact: < Select >

☒ Area Premarked? Name: Phone:

Facility Types: ☒ GT ☒ GD ☒ ET ☒ ED ☒ FIBER PM#:

Arrived Time: 12 / 12 / 2012 14 : 52 : 26 Weather: dry Surface: asphalt

Gas Footage: Electric Footage:

Line Number: MP:

☒ Critical Facility? Standby? ☒ Yes ☐ No (Required)

Method Used: Conductive Direct connection is the required method to locate. All options must be exhausted before using inductive method to locate.

Save Cancel

The "Voicemail" option will also be removed for the Method of Contact field from the mobile and field unit.



PGE Remove VM
SOW 20121213-01

Quote

Cost: \$0

Quote expires on January 30, 2013

Delivery Date

The Delivery Date for testing this custom work to TEST will be on or before 1st Quarter 2013.

Customer will have 30 days to provide written notice of any issues. After 30 days the SOW will be considered accepted.

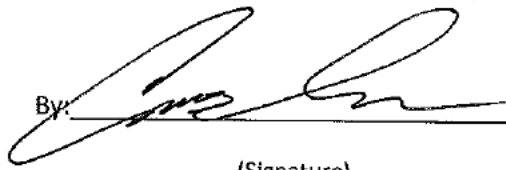
Disclaimer


By executing this document below, parties, IRTH Solutions, Inc. and customer have read, understand, and agree to the Scope of Work and it's in entirety throughout this document. Any change to the Scope of Work will result in additional fees as well as extend the delivery time frame.

IRTH SOLUTIONS LLC

PACIFIC GAS AND ELECTRIC COMPANY:


By: _____

By:  _____

Name:  _____

(Signature)

CHARLES MCGOWAN

Title:  _____

(Name typed or printed)

Locate & Mark Process Owner

Date: _____

(Title)

01/14/13

(Date)

(Date)

EXHIBIT 17

System Damages YTD May 2012

****Dig-ins will be converted to 1st, 2nd, and 3rd party in future reports**

	Bay Area Region					Central Coast Region							Central Valley Region					Northern Region							
	Diablo	East Bay	North Bay	San Francisco	Total	Central Coast	De Anza	Los Padres	Mission	Peninsula	San Jose	Total	Fresno	Kern	Stockton	Yosemite	Total	North Coast	North Valley	Sacramento	Sierra	Total	GT	Total Gas Ops*	YTD System**
Ticket Counts (Tickets Received)																									
YTD May 2012	10,970	10,871	6,258	5,017	33116	6,831	6,832	5,486	7,281	7,684	9,574	43688	10,156	18,529	8,394	11,331	48410	7,685	6,628	23,221	8,171	45,705	4,877	175,796	179,011
YTD May 2011	7,904	7,482	6,851	4,769	27006	4,508	5,115	4,743	6,784	7,907	6,400	35457	9,200	22,376	7,151	10,243	48970	9,882	6,578	21,157	7,342	44959	4237	160,629	163,449
% Change	39%	45%	-9%	5%	23%	52%	34%	16%	7%	-3%	50%	23.2%	10%	-17%	17%	11%	-1%	-22%	1%	10%	11%	2%	15%	9%	10%
May 2012	2,633	2,460	1,470	860	7,423	1,421	1,355	1,215	1,443	1,551	1,967	8,952	1,860	3,655	1,830	2,445	9,790	1,809	1,479	4,897	1,806	9,991	1,164	37,320	37,985
May 2011	2,278	1,832	1,925	1,303	7,338	1,278	1,293	1,445	1,870	2,044	1,858	9,788	2,600	4,130	2,075	3,080	11,885	4,361	1,639	5,943	2,427	14,370	1,215	44,596	45,345
% Change	16%	34%	-24%	-34%	1%	11%	5%	-16%	-23%	-24%	6%	-9%	-28%	-12%	-12%	-21%	-18%	-59%	-10%	-18%	-26%	-30%	-4%	-16%	-16%
Late Tickets																									
YTD May 2012	77	59	23	48	207	4	66	175	31	33	94	403	39	310	66	90	505	70	78	93	56	297	279	1,691	1893
YTD May 2011	139	52	100	66	357	23	46	169	124	25	90	477	26	51	162	37	276	655	20	209	67	951	56	2,117	2229
% Change	-45%	13%	-77%	-27%	-42%	-83%	43%	4%	-75%	32%	4%	-16%	50%	508%	-59%	143%	83%	-89%	290%	-56%	-16%	-69%	398%	-20%	-15%
May 2012	17	19	6	12	54	1	7	39	13	2	15	77	8	45	5	22	80	16	15	6	3	40	73	324	356
May 2011	42	7	27	2	78	2	3	65	33	27	20	150	4	33	25	11	73	60	6	10	28	104	25	430	446
% Change	-60%	171%	-78%	500%	-31%	-50%	133%	-40%	-61%	-93%	-25%	-49%	100%	-24%	-56%	100%	10%	-73%	150%	-40%	-89%	-62%	192%	-25%	-20%
Dig-Ins																									
Target/Goal 2012	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01
RAG Status 2012	Red	Red	Red	Red	Red	Red	Red	Green	Amber	Red	Green	Amber	Red	Green	Red	Red	Amber	Red	Green	Green	Green	Green	Green	Amber	Amber
YTD May 2012 - Dig-ins/1000 Tags	3.83	6.07	4.79	8.17	5.41	4.98	3.81	1.28	3.43	3.64	2.40	3.27	4.14	1.13	3.81	4.94	3.12	4.16	2.11	2.71	2.57	2.84	0.00	3.43	3.37
YTD May 2011 - Dig-ins/1000 Tags	4.93	5.75	8.47	6.71	6.37	9.32	4.89	0.84	4.42	6.45	5.00	5.19	5.33	0.85	5.87	5.96	3.49	3.95	2.74	3.21	3.27	3.31	0.00	4.21	3.10

EXHIBIT 18

PG&E Gas Operations

Keys to Success

June 2013

“Celebrate what you’ve accomplished,
but raise the bar a little higher
each time you succeed.”

Mia Hamm

Goal Metrics	Month		YTD		EOY		Quartile			
	Results	Target	Results	Target	Forecast	Target	1st	2nd	3rd	4th
Gas & Electric Dig-ins Reduction	4.11	3.89	4.15	3.89	3.89	3.89				
Gas Emergency Average Response Performance	21.03	22.30	21.38	22.30	22.00	22.00				
Gas Emergency Response Performance (within 60 minutes)	99.4%	99.0%	99.3%	99.0%	99.0%	99.0%				
Leak Repair Performance	YTD Metric		5,579	4,855	1,000	1,000				
Gas Asset Mapping Duration	YTD Metric		150.00	90.00	90.00	90.00				
Overpressure Events	1.00	2.00	18.00	16.00	34.00	32.00				

◆ 2013 YTD
 ■ 2013 Forecast
 ● 2013 Target
 ▲ 2012

Gas PSEP & PP Program ⁽¹⁾	Month Results			YTD Results			EOY		
	Actual	Plan	Variance	Actual	Plan	Variance	Forecast	Plan	Variance
A. Pipeline Pathway Program									
1. 2013 Centerline Survey Completed	403	902	(499)	2,408	2,815	(407)	6,750	6,750	0
2. Survey GIS Upload Completed	6	750	(744)	110	1,900	(1,790)	6,750	6,750	0
3. Centerline Survey Spend (\$M)	\$4.17	\$7.67	(\$3.50)	\$15.80	\$30.56	(\$14.76)	\$38.00	\$43.40	(\$5.40)
B. Pipeline Safety Enhancement Plan									
1. Strength Test Cost per Mile (\$M)	YTD Metric			\$1.90	\$2.00	\$0.10	\$0.97	\$0.97	\$0.00
2. Pipe/Valve/ILI Spend (\$M)	\$40.30	\$24.62	\$15.68	\$130.63	\$87.42	(\$43.21)	\$414.60	\$414.60	\$0.00
3. Miles Strength Tested	14.13	18.94	(4.81)	36.57	34.20	2.37	204.00	204.00	0.00
4. Miles Replaced	4.72	4.95	(0.23)	14.89	15.06	(0.17)	64.00	64.00	0.00
5. Valves Modified / Automated	0.00	1.00	(1.00)	17.00	16.00	1.00	75.00	75.00	0.00
6. Miles Retrofitted for In Line Inspection	0.00	0.00	0.00	0.00	0.00	0.00	120.80	120.80	0.00

(1) Metric RAG status reflect board-approved end of year STIP targets for 2013. These may differ from operational RAG targets on the individual metrics

Central Leader Goals		Month Results				YTD Results				Full Year			
		Actual	Plan	Variance		Actual	Plan	Variance		Forecast	Plan	Variance	
Safety	OSHA Recordable Injury Rate	1.459	N/A	N/A		2.591	N/A	N/A		2.497	N/A	N/A	
	Lost Workday Case Rate	0.530	0.352		0.178	0.386	0.236		0.150	0.729	0.374		0.355
	Preventable Motor Vehicle Incident Rate ⁽¹⁾	1.637	N/A		N/A	0.865	N/A		N/A	1.977	N/A		N/A
	Serious Preventable Motor Vehicle Incident Rate ⁽¹⁾	0.328	0.250		0.078	0.200	0.250		(0.050)	0.256	0.250		0.006
	Preventable Security Event	0.020	N/A		N/A	0.110	N/A		N/A	N/A	N/A		N/A
Financials	Expense Spending Summary (\$M)												
	Capital Spending Summary (\$M)												
	Separately Funded Projects (\$M)												
	San Bruno IIC (\$M)												
Diversity	Supplier Diversity												
Environmental	Level 1 Enforcement Actions	0	N/A	N/A		0	N/A	N/A		N/A	N/A	N/A	

(1) As of 4/1/13, SPMM & PMM counts/rates only include cases that have completed investigations. This data is not available for prior years.

EXHIBIT 19

PG&E Gas Operations Keys to Success

July 2014

"Tomorrow's illiterate will not be the man who can't read; he will be the man who has not learned how to learn." - Alvin Toffler

1. BPR



Gas Operations - Jun-14

	Current Period		YTD		EOY Forecast		EOY Target		EOY Benchmark		2015 Forecast		2015 Target
Public and Employee Safety													
Gas Dig-In Reductions	2.98	■	2.58	■	2.37	■	2.60		2		2.47	■	2.47
Gas Emergency Response	19.61	■	19.93	■	21.00	■	21.00		1		21.00	■	21.00
Gas Asset Mapping Duration	N/A		28.00	■	32.00	■	32.00		N/A		30.00	■	25.00
Lost Workday Case Rate	0.489	■	0.369	■	0.451	■	0.446		N/A		0.268	■	0.268
SPMVI Rate	0.295	■	0.348	■	0.323	■	0.173		N/A		0.132	■	0.132
Operational													
Grade 2 and 2+ Leak Backlog	N/A		2,244.00	■	500.00	■	500.00		N/A		500.00	■	500.00
Outages per 1,000 Customers	0.14	■	0.40	■	0.80	■	0.25		3		0.17	■	0.17
ILI and Upgrade Index	0.00	■	0.31	■	1.00	■	1.00		N/A		1.00	■	1.00
Average Time for Main Leak Repair (Mins)	1,510	■	1,611	■	1,710	■	1,710		4		990	■	990
Average Time for Service Leak Repair (Mins)	835	■	763	■	827	■	827		4		700	■	700
Large Over Pressure Events	0.00	■	3.00	■	7.00	■	9.00		N/A		4.00	■	4.00
Shut In The Gas Average Time (Min) - Mains	98.21	■	115.51	■	120.00	■	120.00		N/A		108.00	■	108.00
Shut In The Gas Average Time (Min) - Services	50.53	■	52.85	■	49.00	■	49.00		N/A		44.00	■	44.00
Execute Gas Pipeline Safety Work Index	1.34	■	1.42	■	1.00	■	1.00		N/A		1.00	■	1.00
Financials													
GO Expense Spending (\$M)	\$43.32	■	\$281.72	■	\$595.19	■	\$592.93		N/A		\$1,046.3	■	\$908.20
GO Capital Spending (\$M)	\$75.01	■	\$416.15	■	\$862.54	■	\$862.54		N/A		\$1,360.5	■	\$1,363.40
GO Expense Efficiencies (\$M)	\$1.50	■	\$25.20	■	\$75.95	■	\$75.95		N/A		\$28.00	■	\$28.00
GO Capital Efficiencies (\$M)	\$1.30	■	\$35.10	■	\$13.80	■	\$13.52		N/A		\$2.00	■	\$2.00
Critical Work													













EPC Project Health	83.90 	81.67 	82.50 	82.50	N/A	85.00 	85.00
Gas Operations Change Health Score	88.00 	84.00 	80.00 	80.00	N/A	80.00 	80.00
GO CI Tier 1 Project Health	N/A	3.0 	3.0 	2.4	N/A	N/A	2.4
Risk and Compliance	N/A	N/A 	N/A	N/A	N/A	N/A	N/A
Other Initiatives and Projects	N/A	N/A 	N/A	N/A	N/A	N/A	N/A

EXHIBIT 20

Gas Operations BPR

Keys to Success

May 2015

1. BPR and Gas Operations' LoS Scorecard



Gas Operations - Apr-15

	Current Period		YTD		EOY Forecast		EOY Target		EOY Benchmark		2016 Forecast		2016 Target
Public & Employee Safety													
Gas Dig-In Reductions	2.18		2.01		2.06		2.06		2		1.86		1.86
Gas Emergency Response (mins)	20.10		19.89		21.00		21.00		1		21.00		21.00
Shut In The Gas Average Time (Min) - Mains	85.00		99.78		117.00		117.00		N/A		114.10		114.10
Shut In The Gas Average Time (Min) - Services	44.96		47.85		50.20		50.20		N/A		49.00		49.00
Lost Workday Case Rate	0.000		0.408		0.505		0.521		N/A		0.441		0.441
Lost Workday Case Count	0		7		26		27		N/A		22		22
SPMVI Rate	0.443		0.269		0.224		0.213		N/A		0.190		0.190
SPMVI Count	2		4		10		10		N/A		8		8
Operational													
Grade 2 and 2+ Leak Backlog	N/A		1,610		100		100		3		100		100
Dist. Network % SCADA Visiblity	21%		21%		27%		27%		N/A		39%		39%
Average Time for Main Leak Repair (hrs)	27.75		30.66		25.00		25.00		N/A		23.50		23.50
Average Time for Service Leak Repair (hrs)	2.26		3.25		2.50		2.50		2		2.17		2.17
Large Over Pressure Events	0.00		3.00		5.00		4.00		N/A		2.00		2.00
ILI Index	N/A		00		1.00		1.00		N/A		1.00		1.00
Quality Index	N/A		N/A		N/A		1.00		N/A		N/A		1.00
Financial													
GO Expense Spending (\$M)	\$50.82		\$186.07		\$771.86		\$771.86		N/A		\$819.70		\$819.70
GO Capita Spending (\$M)	\$76.24		\$277.00		\$1,416.21		\$1,416.21		N/A		\$1,447.10		\$1,447.10
GO Expense Efficiencies (\$M)	\$2.89		\$10.95		\$73.15		\$73.15		N/A		\$19.80		\$19.80
GO Capita Efficiencies (\$M)	\$12.96		\$14.68		\$25.15		\$25.15		N/A		\$31.50		\$31.48
Critical Work													
EPC Project Health	86.00		83.40		85.00		85.00		N/A		86.00		86.00
GO Initiative Health	77%		82%		75%		75%		N/A		80%		80%
GO Risk Mitigations							80%		N/A				
GO Compliance Mitigations							80%						
Other Initiatives and Projects	N/A		N/A		N/A		N/A		N/A		N/A		N/A

Gas Operations - 2015 Line of Sight

Focus Area	Metric Name	Current Period Performance	YTD Performance	EOY Forecast	EOY Target	Previous Month YTD Performance
Safe	Employee LWD (# of incidents)	0	7	26	26 incidents	7
	Employee SPMVI (# of incidents)	2	4	10	10 incidents	2
	GT LWD Rate Only		0	0.264	0.264	0
	GT SPMVI Rate Only		0.24	0.281	0.281	0.31
	PASS5 and ISO55001 Re-certification		Achieved	Achieved	Maintain certifications	Achieved
	API 1173 certification		On Target	On Target	Gap analysis and achieve certification	TBD
	ILI: Miles made piggable		0	55	55	0
	ILI Miles Inspected		133.31	202	202	133.31
	Miles of Distribution Mains replaced		27	86	86	11.9
	3rd Party Dig-Ins per 1,000 tickets	2.18	2.01	2.06	2.06	1.98
	Reduction of Mismarks	16	38	70	70 mismarks	12
	Miles of Trans. Pipeline Strength tested		0.9	74.2	74.2	0
	Miles of Trans Pipeline Installed		4.8	10.7	10.7	4.33
	# of valves automated		5	27	27	1
	# of legacy cross-bores inspected		9,600	24,000	24,000	7,501
	SITG - mains	85	99.78	117	117 mins	104.33
	SITG - services	44.96	47.85	50.2	50.2 mins	49.08
	Gas Emergency Response Time	20.1	19.89	21	21 mins	19.83
Reliable	% PHAs/PSSRs completed		Unavailable		80% of 2015 capital projects	86%
	% of employees participating in CAP				25% Gas Operations participation	9%
	% of High and Medium Risk CAP items past due				5% improvement from 2014	1.2%
	# of overdue internal audit findings		1	1	0	0
	Grade 2 and 2+ Leak Backlog (Rolling 12 month average)		1,265	2,024	2,024	1,661
	Grade 2 and 2+ Leak Backlog (YE target)		1,610	100	100	1,479
	Grade 3 leak backlog		Under Development		TBD	Under Development
	Meter set leak backlog		56,571	101,613	101,613	53,139
	Gas Asset Mapping Duration		30	30	<30 Days	29.32
	Gas Asset Mapping Duration (Facilities) Facilities As-built		Under Development			Under Development
	Internal review compliance findings		16	10	10	12
	Large Over Pressure Events	0	3	4	4	3
	Dist. Network SCADA % Visibility (Quarterly)	Qtrly.	Qtrly.	27%	>= 27% system visibility	21%
	Compressor Reliability %	96.10%	96.60%	96.60%	96.50%	96.80%
	PSEP Index		0.88	1.0	1.0	0.75
	Pipeline Pathways Index		1.29	1.0	1.0	1.63
	Lost and Unaccounted for (LAUF) Gas		TBD		TBD	Unavailable
	Quality Index	0.34	0.4	0.41	1.0	On Hold
Affordable	Expense efficiency realization	\$2.89	\$10.95	\$73.15	\$73.15 M	\$8.10
	Capital efficiency realization	\$12.96	\$14.68	\$25.20	\$25.15 M	\$3.60
	Average Time for Service Leak Repair	2.26	3.25	2.5	2.5 hrs	3.66
	Average Time for Main Leak Repair	27.75	30.66	25	25 hrs	26.37
	SGO installed (to steady state graduation requirements)				Per Territory: > 60% of \$ and > 50% of orders	
	Visibility of work		Under Development		5 weeks for M&C and 10 weeks for GC	Under Development
	Work plan adherence				> 80%	0.85
	Compliance dates missed	0	1	1	0	1
	% system surveyed by Super Crew			50%	50%	Under Development
Customer	GRC Data Response Within Deadline		Sept. '15	95%	95%	Sept. '15
	Adherence to GRC Filing Schedule		1	1	1	1
	# of NTSB recommendations open at year end		2	1	1	3
	Bourke Survey Results		Est. December		9	Est. December
	JD Power Gas Bus-Field Svc Index		3	3	3rd Quartile	3
	JD Power Gas Res-Field Svc Index		2	3	3rd Quartile	2
	% Customer Commitments Met	86.50%	88.60%	93.00%	93.00%	88.60%
People	Customer Communication Effectiveness		Est. Q3		TBD	TBD
	% development plans in place		57%	80%	80%	50%
	% completion of mandatory training		58%	100%	100%	80%
	Premier Survey action plan implemented (Director and above)				TBD	
	First year Turnover		0.92%	3.90%	4.20%	0.91%
	Know, Feel, Do Survey Results		4.17	4.3	4.3	4.17

15. Process and Quality Excellence



F&RM Keys to Success

Process & Quality Excellence		
Financial Results		Financial Performance and Milestone Status
Overall LoS Goal Status		Action Plans in place to recover in Q2.

Process & Quality Excellence Financial Performance

PCC Summary Overview

Process and Quality Excellence - Daniel Jarmel

LOB Budget Level 1 COST ELEMENT DETAILS HEADCOUNT PRODUCTIVE CAPACITY OVERTIME/DOUBLETIME OTHER&EMPLOYEE RELATED COST IN COST OUT

Thousands

Organization	April			YTD			2015			Headcount			
	Actual	Plan	Variance	Actual	Plan	Variance	Run Rate	Plan	Variance	Actual	Plan	Var	Year End Plan
QA/QC Type D PCC	231	411	180	937	1,624	687	2,811	5,209	2,399	14	23	9	27
QA/QC Type B PCC	736	533	(203)	2,483	2,089	(393)	7,448	6,295	(1,153)	38	37	(1)	37
Process & Quality Excellence	223	316	93	823	1,182	359	2,469	4,188	1,719	13	20	7	26
Total Cost In	\$1,190	\$1,260	\$71	\$4,243	\$4,895	\$652	\$12,728	\$15,692	\$2,965	65	80	15	90
Labor	857	996	139	3,303	3,834	531	9,908	12,470	2,562				
Materials	9	7	(2)	24	29	5	73	87	14				
Contract	188	132	(56)	430	527	97	1,291	1,582	291				
Other	125	109	(15)	447	442	(5)	1,340	1,366	26				
PCC Charges	11	16	5	39	63	24	116	187	72				
Total Cost In	\$1,190	\$1,260	\$71	\$4,243	\$4,895	\$652	\$12,728	\$15,692	\$2,965				

State of Business Updates

Metrics and Measurement:

Compliance Internal Records Review:

Compliance Records Sampling has been completed for the 2014 distribution and local transmission records at an accelerated rate for Q1 2015 at a reduced confidence level sampling, but providing the information in a more timely manner. Overall Internal Records Review findings for the system saw an upward trend in findings per 100 records reviewed with the Q1 2015 results. The six month rolling average trend in March went to 16 findings per 100 reviews, significantly above the Q2 2015 goal of 14 (reporting ahead by 2 months).

Compliance and P&QE are partnering with T&D Operations to review the internal records quality management strategy to include code and standard revisions, control point enhancements and the way in which we leverage the results to drive improvement. Jesus Soto and John Higgins held a conference call with a "call to action" with the T&D Operations organization to share the results and raise awareness of expectations for improvement in compliance to achieve 0 NOV's.

Reporting Quarter	Baseline						Q1-2015			Q2-2015			Q3-2015			Q4-2015
Record Month	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Record Quarter	Q2-2014			Q3-2014			Q4-2014			Q1-2015			Q2-2015			Q3-2015
Target	17						16			14			12			10
Records w/Findings per 100 Reviewed - 6 Month Rolling Average	17	17	15	15	13	13	14	14	15	16						



F&RM Keys to Success

Quality Performance through April 2015

Overall Metrics below display the progress towards completion of planned number of assessments and YTD Pass Rate or Quality Index for each key Quality program.

- All process quality results are in “amber” or “green” status with 5 of 11 processes trending up and 1 of 11 flat since last reporting period.
- 5 processes (down from 7 last month) are behind on number of assessments which is typical for the start of the year with the volume of work ramping up (plan was straight-lined for simplification).

Below are key findings for Amber process:

- Repaired Leak Evaluations (Amber): There were 13 total findings on repaired leaks. Six were deemed to be inadequate repairs and 7 were found to be new leaks. The top four reasons for the inadequate repairs were: O-Ring in tee cap was installed incorrectly, Aldyl A over cap and the tee cap were loose and leaking, Butt Welds were leaking, High Volume Tapping Tee Cap was leaking.
- FS-GSR (Amber): One Potential Hazard, One Left Hazard, One Leak Procedures, One CO Procedure errors and one unplugged Outlet were missed during QM assessments in April.
- Locate and Mark (Amber): There were 2 mismarks and 4 no marks in the month of April that also impacted the BPR Quality Index results for Locate and Mark. Supervisors should review with their locators TD-5811P-201, “Conductive Locating”, TD 5811P-102,” Determining Scope of Locate and TD-5811P-103 “Trouble Shooting Difficult to Locate” for proper understanding.
- I&R Rotary Meters (Amber): During QM assessments the impeller shaft was not able to move freely. Second, QM found the oil had not been changed within the 10 year interval.

	Target # Assessments April	# Assessments Completed April	Target # Assessments YTD	# Assessments Completed YTD	Current Month Pass Rate YTD/Quality Index	Trend from prior Month	
Repaired Leaks	90	136	360	238	97.10%		LEGEND <95 95-98 >98
Distribution Construction - Div	20	55	80	167	98.54%		LEGEND <70 70-89 >89
Distribution Construction - GC & Cont	20	53	80	243	99.73%		LEGEND <70 70-89 >89
Gas Field Service	64	53	257	199	85.00%		LEGEND <80 80-89 ≥90
Leak Survey - Next Day Assessment	18	6	71	42	87.10%		LEGEND <70 70-85 >85
Locate and Mark	27	24	107	96	74.60%	↑	
Regulator Stations	5	10	20	22	86.00%	↓	
Valves	13	23	50	50	98.00%	↑	
Rotary Meters	12	11	47	24	83.00%	↓	
Corrosion - Pipe-to-Soil	8	19	30	54	96.00%	↓	
Corrosion - Rectifier	5	6	20	21	100.00%	→	

within target
within 15%
below 15%



F&RM Keys to Success

BPR Quality Index:

Index below is being reviewed with Key Stakeholders for review of findings and development of plans to return to green or maintain green results. Index was not reported for March in April, but will be reported in May.

Leak Survey, Transmission, Locate and Mark, and Repaired Leak Evaluations, (4 out of the 7 metrics that formulate the overall QI), exceeded the upper limits of the 2015 band range of (does not meet) (error rate), resulting in a normalized band score of 0.0 and a Red RAG status. These 4 metrics accumulate to a total weighting of 73% of the QI metric score. Leak Survey (20%) and Transmission (23%) combine for 43% weighting of the QI metric.

Below are the recovery plans to get the metric green:

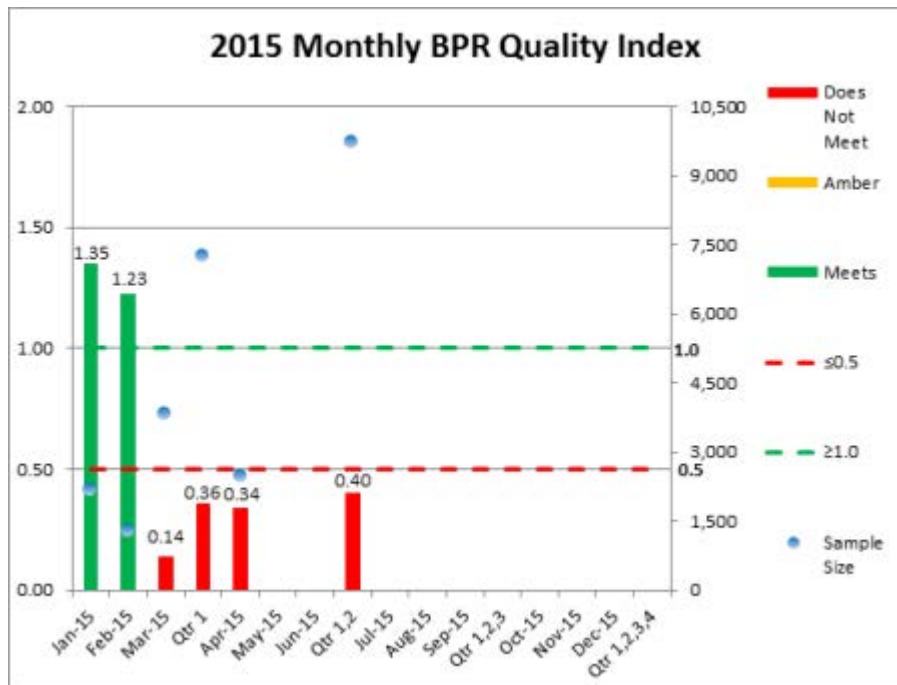
- Leak Survey (Red): 1) All Grade 1 findings result in a supervisor / surveyor in-field review, 2) QM provides a remediation strategy, which is shared with surveyor who failed QM, 3) Leak Management will develop and share a tailboard with all surveyors to discuss proper protocols for investigating leaks within 5 feet of the building, 4) Leak Management will work with the Training Academy to further develop improved training regarding leak survey pause points within 5 feet of a structure and or building to further aid in finding all leaks and minimizing risk.
- Transmission (Red): Work with third party quality/industry experts to identify coating measurements that exceed industry quality standards and align PG&E's Quality Manual and job aids to them to ensure that requirements for a quality product are clear.
- Locate and Mark (Red): Jesus Soto has invoked a Locate and Mark SAR (Special Attention Review) to identify both short and longer term strategies to address issues stemming from outdated technology and resource churn. Additionally, in May, 22 resources were reallocated from the M&C organization to support the increased volume and an additional 20 resources are expected in June.
- Repaired Leak Evaluations (Red): Reconfirm a high level of understanding of the post repair process. Consider post Leak Repair re-check option is being utilized appropriately.

BPR Scores	Metric	Apr-15	Apr Score	Trend from prior month	YTD	YTD Score
20.0%	Leak Survey - Grade Ones left behind/10,000 services surveyed	26.0	0.0		19.5	0.0
23.0%	Transmission Construction - Coating defects/100 Sampled	3.1	0.0		2.8	0.0
12.0%	Locate & Mark - # defects/100 tickets	3.4	0.0		3.1	0.0
18.0%	Repaired leaks - # Findings/100 locations checked	9.6	0.0		9.2	0.0
10.0%	Distribution - # major findings/100 asmt.	13.9	0.0		13.2	0.6
10.0%	I&R - # major findings/100 asmt.	12.5	2.0		35.9	2.0
7.0%	FS GSR - # hazard and leak findings/100 EE's assessed	3.8	2.0		4.5	2.0
Overall BPR Score (After Normalization)			0.34			0.40

≥ 1.0	Meets Goal
0.5-1.0	Amber
≤ 0.5	Does Not Meet



F&RM Keys to Success



- **Cost Savings Summary (Realized as of April 2015)**

In 2015 Gas Operations has targeted \$73.15M in expense and \$25.15M in capital efficiencies. The year to date expense saving realized is \$11M as of April compared to \$8.1M in March. In April, Gas Operations realized \$2.9M in expense savings and \$13M in capital savings. We are conducting deep dive into the cost drivers for the increase in expenses of the M&C Workforce Management.



F&RM Keys to Success

Column:		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)		
Row #		Targets				Forecasts		YTD Actuals / Straightline Target				Current Month Savings Realized		Financial Status	Page #
		Expense Target (\$73.15M)	Capital Target (\$25.15M)	Total Target (\$98.3M)	Target Variance (vs Last Month)	EoY Forecast	Forecast Variance (vs Last Month)	YTD Expense Realized	YTD Expense Straightline Savings Target	YTD Capital Realized	YTD Capital Straightline Savings Target	Expense Realized in Current Month	Capital Realized in Current Month		
(1)	Organizational Savings	\$5.7	\$5.6	\$11.3	-	\$11.3	-	\$0.9	\$1.9	\$1.1	\$1.9	\$0.3	-		
(2)	2015 PCC Organization Savings	4.7	5.6	10.3	-	10.3	-	0.6	1.6	1.1	1.9	-	-		10
(3)	Management Consulting	1.0	-	1.0	-	1.0	-	0.3	0.3	-	-	0.3	-		11
(4)	Operational Savings	46.1	23.0	69.1	23.0	61.1	15.0	9.3	15.4	12.5	7.7	2.6	12.5		
(5)	Main Replacement Strategy	-	23.0	23.0	23.0	23.0	23.0	-	-	12.5	7.7	-	12.5		12
(6)	Leak Management	11.4	-	11.4	-	11.4	-	2.2	3.8	-	-	2.2	-		13
(7)	Field Services	9.8	-	9.8	-	3.8	(6.0)	-	3.3	-	-	-	-		15
(8)	Locate & Mark	6.8	-	6.8	-	6.8	-	3.2	2.3	-	-	0.6	-		16
(9)	Pipeline Operations & Maintenance	4.1	-	4.1	-	2.1	(2.0)	0.7	1.4	-	-	0.2	-		17
(10)	M&C Workforce Management	4.0	-	4.0	-	4.0	-	(0.7)	1.3	-	-	(0.5)	-		19
(11)	Corrosion	3.3	-	3.3	-	3.3	-	1.4	1.1	-	-	0.4	-		20
(12)	DIMP	2.2	-	2.2	-	2.2	-	0.7	0.7	-	-	0.1	-		21
(13)	AC Inspection	1.1	-	1.1	-	1.1	-	0.4	0.4	-	-	0.4	-		22
(14)	GSO (FG and GG)	0.9	-	0.9	-	0.9	-	0.3	0.3	-	-	0.1	-		23
(15)	Technology	0.8	-	0.8	-	0.8	-	0.3	0.3	-	-	-	-		24
(16)	Preventative Maintenance (FH)	0.5	-	0.5	-	0.5	-	0.1	0.2	-	-	-	-		25
(17)	Gas Operations Technical Training	0.5	-	0.5	-	0.5	-	0.2	0.2	-	-	0.0	-		26
(18)	Patrols	0.4	-	0.4	-	0.4	-	0.5	0.1	-	-	0.1	-		27
(19)	GSO (CMX and CMA)	0.4	-	0.4	-	0.4	-	0.1	0.1	-	-	(0.8)	-		28
(20)	Other Savings	7.3	7.3	14.6	-	14.6	-	0.8	2.4	1.1	2.4	-	0.5		
(21)	Sourcing	7.3	7.3	14.6	-	14.6	-	0.8	2.4	1.1	2.4	-	0.5		29
(22)	Total Quantified Cost Efficiencies	59.1	35.9	95.0	23.0	87.0	15.0	11.0	19.7	14.7	12.0	2.9	13.0		
(23)	Initial Unidentified Cost Efficiencies	14.1	(10.8)	3.3											
(24)	2016 Work Moved into 2015:	-	23.0	23.0											
(25)	Approved Budget Adjustments:	28.2	-	28.2											
(26)	Unapproved Forecast Increase:	1.4	-	1.4											
(27)	Unapproved Forecast Decrease:	-	-	-											
(28)	Risk & Opportunities:	20.9	14.3	35.2											
(29)	Projected Unrealized Cost Efficiency	64.6	26.6	91.1											

- **Q.C. 2.0 – Super Gas Operations Data Integrity Review**

Q.C. 2.0 report has begun to roll-out some changes in reporting with the intent to identify key defect drivers, regions and work types to provide more transparency and accountability for correction. Additionally, the supplemental analysis will help to identify systemic/process issues rather than identify individual notifications with defects. Current defect rate:

QC 1: 0.9%

QC 2-16: 2.9%

SGO Progress: 93%

Sacramento capital work has been identified as a defect driver and additional hands/eyes have been brought together to understand the issues that are going on here.



F&RM Keys to Success

QC 2.0 Report Dashboard									
Report Date 5/13/15									
Division	Work Stream	QC 1 (count of unique Notif #s)			QC 2-16 (count of unique Notif #s)			SGO Progress	
		Notifications Past Due	Total Notifs with SGO Status	Percent with Notifs Past Due (target is 0%)	QC Defect Detected	Total Notifs with SGO Status	Percent with Detected Defects (target is <5%)	Total Notifs with SGO Status	Percent with SGO Status (target is >85%)
Peninsula	Capital	3	392	0.8%	15	392	3.8%	392	95.1%
	Expense	9	1,068	0.8%	31	1,068	2.9%	1,068	87.8%
	Total	12	1,460	0.8%	46	1,460	3.2%	1,460	89.6%
Sacramento	Capital	6	340	1.8%	51	340	15.0%	340	76.1%
	Expense	9	4,109	0.2%	60	4,109	1.5%	4,109	94.7%
	Total	15	4,449	0.3%	111	4,449	2.5%	4,449	93.0%
San Jose	Capital	3	254	1.2%	19	254	7.5%	254	80.4%
	Expense	44	2,042	2.2%	47	2,042	2.3%	2,042	96.6%
	Total	47	2,296	2.0%	66	2,296	2.9%	2,296	94.5%
Stockton	Capital		249	0.0%	10	249	4.0%	249	89.9%
	Expense	9	518	1.7%	25	518	4.8%	518	90.9%
	Total	9	767	1.2%	35	767	4.6%	767	95.8%
All Divisions	Capital	12	1,235	1.0%	95	1,235	7.7%	1,235	85.1%
	Expense	71	7,737	0.9%	163	7,737	2.1%	7,737	94.4%
	Total	83	8,972	0.9%	258	8,972	2.9%	8,972	93.0%

CAP		68%		QC Check					
		3	10	12	13	15	16		
PN	GDED	1	2	4	1	1	0	9	
PN	PM	0	0	1	1	0	1	3	
SA	GDED	9	8	9	3	12	0	41	
SA	PM	2	0	2	4	3	0	11	
SJ	GDED	0	1	4	2	1	0	8	
SJ	PM	0	0	1	1	1	12	15	
ST	GDED	0	1	1	0	0	0	2	
ST	PM	0	0	1	0	0	0	1	
Total	GDED	10	12	18	6	14	0	60	
	PM	2	0	5	6	4	13	30	
EXP		88%		QC Check					
		10	12	14	15				
PN		5	23	0	3	31			
SA		8	12	33	5	58			
SJ		5	27	22	3	57			
ST		1	8	4	8	21			
Total		19	70	59	19	167			

- **Super Gas Operations - Control Tower:**

Control Tower is supporting the San Jose SGO Refresh, which is in Week 3, and is moving according to plan.

The Sustainability Reviews round 2 are scheduled: Sacramento June 3-4, Stockton June 10-11; return to San Jose 6 weeks after the Re-install is complete, on July 15-16; Peninsula's first Sustainability Review will be 6 weeks post-Install on July 8-9



F&RM Keys to Success

The Sustainability Reviews will leverage the training and experience gained by the Review Team during the first Sustainability Review such as ensuring some comparability in the results and outcomes, improving the tools, prep materials, and advanced scheduling to gain efficiencies. We have extended an invitation to the directors and officers to participate in the SGO Sustainability reviews.



Part of our CI effort is to centralize and strengthening Issue Management. We are now capable to track and identify systematic issues across the SGO Divisions. The Tier 2 Issue Boards are now using a common format. We are coaching SGO Division teams with “issue capture and description”. We are developing mechanisms and support to escalate issues and work on problem solving. Our CI support also includes the integration of Supercrew into SGO. We have completed time motion studies of the SGO/SC process steps to prepare “impact” forecast for remaining SGO offices and Revised/updated the process flow charts for the integration.

Organization Updates:

Additions:

- Frances Yee joined the Quality Management team moving over from Gas Regulatory Compliance as a Gas Quality Management Specialist, Principal.
- [REDACTED] accepted a position in the Gas Field Service Compliance section and is starting effective May 1, 2015.
- Shonda Abercrombie joined the Process Management and Controls team in April. Shonda was previously a Leak Management Supervisor in Bakersfield.
- [REDACTED] joined the team as a quantitative analyst, senior.
- [REDACTED] has joined the Process and Quality Excellence team as a business process analyst, principal.

Departures:

- [REDACTED] and [REDACTED] both of Gas Field Service Compliance retired.



F&RM Keys to Success

Process and Quality Excellence (PQE) Line of Sight Goals

Process and Quality Excellence (PQE) Goal Description	Variance Explanation for RAG Status	Progress to Date/ Mitigation Plan	Percentage Completed	Anticipated Risks (cost, resources, governance, decisions)
Develop and implement the department safety action plan		<ul style="list-style-type: none"> Completed March 31 plan development milestone 	33%	
Support GSE by developing and implementing a comprehensive Quality Management system plan for Gas Operations		<ul style="list-style-type: none"> Feedback sessions held with Officers based on initial draft of QMS, which was completed on March 24th. Feedback was reviewed at the April QPIC meeting. On Schedule to deliver updated draft of QMS 	33%	
Provide an integrated, balanced scorecard for CAP and support root cause analysis and continuous improvement activities		<ul style="list-style-type: none"> Identifying ways to measure quality of closed CAP items Developing proper metrics to measure CAP success and performance Developed protocol and are now executing a review of the effectiveness of closures at the request of the CAP team 	25%	
Partner with the safety department to provide feedback and insight on safety behaviors		<ul style="list-style-type: none"> Current focus is on providing analytic support to assess existing safety data and to identify critical factors for improving safety performance, specifically LWD. Supporting Safety SAR 	25%	
Develop and implement process management framework		<ul style="list-style-type: none"> Completed 3/30 milestone for performing initial Sustainment Reviews for SGO Developed a CI framework for SGO (Issues -> Problem Statement -> Problem Solving Sessions -> Developing and Implementing Solutions) 	50%	
Expand current Quality Management organization's focus to deliver quality control support, quality terminology and training, support to Quality Council, and development of the Quality Management system plan		<ul style="list-style-type: none"> Developing 2nd draft of QPIC document for review. Working with Change Management to draft a communication plan. Participated in QPIC presentation at April Keys to Success meeting 	33%	



F&RM Keys to Success

Process and Quality Excellence (PQE) Goal Description	Variance Explanation for RAG Status	Progress to Date/ Mitigation Plan	Percentage Completed	Anticipated Risks (cost, resources, governance, decisions)
Strengthen quality assurance by increasing use of natural metrics, developing integrated operational and quality scorecards, collaborating with process owners, and establishing a robust feedback process		<ul style="list-style-type: none"> Developed new ESC Summary for Transmission Construction and similar was completed for Distribution Construction Publishing BPR Quality Index Metrics 	25%	Quality BPR Metrics plan to return to green under development. Metric to be reported in May.
Build lean six sigma, analytics, and process controls capabilities within PQE to drive sustainable process and quality improvement		<ul style="list-style-type: none"> On track to meet target of staffing identified open positions in PQE by June 30 5 offers came from two day F&RM Hiring Event held in April. 3 Acceptances, 1 offer pending response 	75%	Additional staffing requirements may arise based on review of potential for bringing additional QA reviews back in-house
Perform gap analysis on Malcolm Baldrige National Quality Award (MBNQA) criteria and develop an action plan		<ul style="list-style-type: none"> Developed overview of framework for QPIC Identified and reviewed potential assessor training organizations 2 QM team members will attend training September 30 milestone for Gas Ops MBNQA assessment under review, but planning is on track 	33%	
Ensure CAP actions are integrated with process and quality improvement efforts		<ul style="list-style-type: none"> Data Quality team expanding use of CAP in Q2 Integration of CAP item analysis in execution of Lean Six Sigma projects on track for May 31 process implementation goal 	50%	
Manage the Super Gas Ops (SGO) project office, facilitate accelerated Super Crew deployment		<ul style="list-style-type: none"> Published Version 3.0 of SGO Operating Manual on 3/11/15 On-track to publish Version 4.0 by TBD date 	50%	
Support process owners and Budget Center Accountability (BCA)s in achieving cost savings targets		<ul style="list-style-type: none"> Completed development of Cost Saving Calculator to calculate potential savings by MAT codes and Unit Cost Structure(ST, OT, Contractor, Material etc) 	50%	
Provide effective leading metrics to drive quality and compliance improvement and facilitate improvement projects that increase safety and compliance		<ul style="list-style-type: none"> New metric assessing Compliance Records Findings/100 records reviewed implemented Developing cascading metric dashboards to provide improved data visibility/areas of focus for each work stream 	33%	



F&RM Keys to Success

Process and Quality Excellence (PQE) Goal Description	Variance Explanation for RAG Status	Progress to Date/ Mitigation Plan	Percentage Completed	Anticipated Risks (cost, resources, governance, decisions)
Support employee career development and engagement through training, coaching and the creation of meaningful development plans		<ul style="list-style-type: none">Met March 31 milestone for establishing development plans for all PQE employees	33%	
Develop and implement the next phase of “One F&RM Community” to improve recruiting, onboarding, engagement and training		<ul style="list-style-type: none">Participating in One F&RM Community Activities	33%	

RAG status Red: Off Track, requiring assistance

RAG status Amber: Off Track, plan to recover identified

RAG status Green: On Track



F&RM Keys to Success

Overall Accomplishments and Improvement Opportunities

- Fourth Quality and Process Improvement Council (QPIC) meeting held on April 23. With additional progress made towards defining IA vs. QM responsibilities, providing a QPIC Metrics Dashboard, closing out the Inspection Issue, and completing initial discussions on a Quality Communications Plan. An overview of the Malcolm Baldrige Framework was also provided to the QPIC members.
- Continued work with the AT&T Mobile forms to continue expansion to additional processes and to develop reporting and analytics. Significant progress has been made on the analytics. Also reviewed an R&D project for Distribution Construction Inspection that had similar tools, but at this point is narrowly focused on one functional area and not a broad based tool.
- Mobilized Compliance Records review team and contractors to complete Q1 2015 reviews in a 3 week period.
- Developed a new Distribution Construction Quality report for use in Distribution Construction Program management and executive reporting.
- Held first of a new monthly meeting for reviewing monthly transmission construction findings with Transmission Construction Leadership in advance of Monthly ESC meeting.
- Continued support of Field Services CGI and OT reduction initiatives. In addition, facilitating Remove the Filter implementation planning for both Field Services and Dispatch
- Completed the Picarro lease/buy analysis by modeling the operational constraints with a higher number of Picarro units deployed as recommended by FIT Gov. Results were presented at 3/30 FIT GOV meeting.
- Completed the Shift Analysis for all Field Services service areas. The team presented to the Field Services Area 4 its shift and staffing recommendations.
- Tauber internship: We have a 3 intern team joining us starting on May 11th and supporting PG&E through Aug 14th. The focus of this year's Tauber internship is corrosion integration into SGO. A Tauber visit was held Thursday 4/15 with introductory meetings with PG&E team (PQE, Corrosion, Compliance, and SGO install team).
- The Control Tower has established partnerships on several new SGO initiatives (e.g., SuperCrew integration, and Permitting).
- Submitted Part 1 of AGA benchmarking study
- Finalized and submitted STIP Q1 metrics and validation packages for review
- Working with members from A&RM and E&CO to develop more robust benchmarking program to identify which groups are currently involved and the extent of involvement.
- Continue to identify potential gaps in measurement for SGO QC 2.0 report and completed cross training of team members to ensure stabilization of report delivery process
- Working to identify proper metrics to be included in Session 1 – looking to develop more robust measurements in affordability, customer satisfaction and employee engagement
- Assisting A&RM and E&CO to develop metrics for Line of Sight
- Began work with Vince Gaeto to transition Tier 3 and 4 SGO dashboard reporting and data collection to Metrics & Scorecard team
- Enhanced BPR reporting to include ECAP and ERIM status and health reporting to be reviewed and included in monthly reporting cadence
- Working to finalize AGA SOS for Dispatching in two areas – responding to emergency calls in rural areas and right sizing dispatcher scheduling
- Performed reviews on Station As-built packages to support the LSS Station As-built process.
- Performed As-built package reviews in SGO divisions prior to Compliance Desk review to support identifying the impact of the kick-back process.
- Delivered clerical specific As-built training to the SGO divisions.
- Developed an access database QC tool for the SGO Compliance Desk As-built reviews.
- Released two access database QC tools to the Super Crew team to enable timely feedback and swift corrective action.



F&RM Keys to Success

Upcoming Items and Activities

- 5th QPIC monthly meeting, scheduled for 5/27 will include further discussion of draft QMS Plan, Dashboard review, Communications Plan and Data Quality Plan Update
- Kick off Director level Process Owner meetings to review the BPR Quality Index and associated metrics. Complete variance explanations to include actions and timeline for returning to green.
- Begin quality process improvement initiatives for Compliance Records Review, Transmission Materials Data Tracability, and Applicant Installed Inspection
- Continuing AT&T mobile forms implementation by implementing the associated reporting for each of the pilot processes with AT&T analytics
- Continue to support Gas-0814 as SME's for the As-built Procedure in this training.
- Presented As-built Review Findings to all division M&C Leadership teams including Mapping. Drafted action plans related to each divisions top 3 findings.
- Continue filling Scrum Master role for LOTO initiative.
- Partnering with Compliance and Leak Survey Leadership to document the control framework for Leak Survey.
- Release the access database QC tool to the SGO Compliance Desk As-Built reviews team.

Risks and Mitigation Strategies

- NA

Support Needed from Other Partners

- NA

EXHIBIT 21

Gas Operations BPR

Keys to Success

June 2016

"Strength in Numbers"





































– Warriors

1. BPR and Gas Operations' LoS Scorecard



Gas Operations - May-16

	<u>Current Period</u>		<u>YTD</u>		<u>EOY Forecast</u>		<u>EOY Target</u>		<u>EOY Benchmark</u>		<u>2017 Forecast</u>		<u>2017 Target</u>	
Public & Employee Safety														
Gas Dig-In Rates	1.76	<div></div>	1.64	<div></div>	2.03	<div></div>		2.03		1		1.96	<div></div>	1.96
Gas Emergency Response (mins)	19.80	<div></div>	20.25	<div></div>	21.00	<div></div>		21.00		1		21.00	<div></div>	21.00
Shut In The Gas Average Time (Min) - Mains	92.87	<div></div>	96.69	<div></div>	100.22	<div></div>		100.22		N/A		97.71	<div></div>	97.71
Shut In The Gas Average Time (Min) - Services	43.13	<div></div>	42.28	<div></div>	48.95	<div></div>		48.95		N/A		47.72	<div></div>	47.72
Lost Workday Case Rate	0.996	<div></div>	0.409	<div></div>	0.580	<div></div>		0.568		N/A		0.421	<div></div>	0.421
Lost Workday Case Count	5		10		34			33		N/A		23		23
SPMVI Rate	0.000	<div></div>	0.160	<div></div>	0.267	<div></div>		0.215		N/A		0.172	<div></div>	0.172
SPMVI Count	0		3		12			9		N/A		8		8
SPMVI Pending Count	1		3		N/A			N/A		N/A		N/A		N/A
GO Timely Reporting of Injuries	67.7%	<div></div>	66.3%	<div></div>	67.1%	<div></div>		67.1%		4		73.8%	<div></div>	73.8%
Operational														
CAP Engagement	3.28%	<div></div>	28.62%	<div></div>	31%	<div></div>		31%		N/A		40%	<div></div>	40%
Mandatory Training	78%	<div></div>	62%	<div></div>	80%	<div></div>		100%		N/A		100%	<div></div>	100%
Legacy Cross Bore Inspection	901	<div></div>	4,618	<div></div>	35,000	<div></div>		40,000		N/A		45,000	<div></div>	45,000
Distribution Main Replacement Miles	12.1	<div></div>	41.9	<div></div>	126.0	<div></div>		126.0		N/A		158.0	<div></div>	158.0
ILI Index	0.70	<div></div>	0.70	<div></div>	1.00	<div></div>		1.00		N/A		1.00	<div></div>	1.00
Dist. Network SCADA Visibility	11	<div></div>	30	<div></div>	196	<div></div>		196		N/A		277	<div></div>	277
Grade 2 and 2+ Leak Backlog	1,999	<div></div>	1,999	<div></div>	100	<div></div>		100		1		100	<div></div>	100
Large Over Pressure Events	0.00	<div></div>	1.00	<div></div>	3.00	<div></div>		4.00		N/A		1.00	<div></div>	1.00
Average Time for Main Leak Repair	N/A		42.00	<div></div>	20.00	<div></div>		20.00		N/A		20.00	<div></div>	20.00

(hrs)	N/A	15.90 	30.00 	30.00	N/A	30.00 	30.00
Average Time for Below Ground Service Leak Repair (hrs)	N/A	18.12 	14.00 	14.00	N/A	14.00 	14.00
Quality Index	1.26 	1.43 	1.00 	1.00	N/A	1.00 	1.00
Financial							
GO Expense Spending (\$M)	\$53.93 	\$224.16 	\$496.92 	\$548.98	N/A	\$686.99 	\$686.99
GO Capital Spending (\$M)	\$136.03 	\$598.08 	\$598.08 	\$1,507.49	N/A	\$1,746.9 	\$1,746.90
GO Expense Efficiencies (\$M)	\$1.60 	\$8.00 	\$47.10 	\$47.10	N/A	\$44.50 	\$44.50
GO Capital Efficiencies (\$M)	\$0.00 	\$0.00 	\$10.30 	\$10.30	N/A	\$45.00 	\$45.00
Critical Work							
GO EPC Project Health	96.10 	92.00 	86.00 	86.00	N/A	87.00 	87.00
GO Initiative Health	81% 	80% 	80% 	80%	N/A	80% 	80%
GO Risk Mitigation Progress	N/A 			N/A	N/A		N/A
GO Compliance Risk Mitigation Progress	N/A 			N/A	N/A		N/A
Other Initiatives and Projects	N/A	N/A 	N/A	N/A	N/A	N/A	N/A

Gas Operations - 2016 Line of Sight

Focus Area	Metric Name	Current Period Performance		YTD Performance		EOY Forecast		EOY Target	Previous Month YTD Performance	Variance Explanation / Operational Summary	Recovery Plan / Actions to Maintain
Safe	Employee LWD	5		10		34		33	5	5 incidents confirmed in May related to kneeling, twisting foot, wrist pain, strike on foot, and fall due to dog.	Team is continuing to monitor all injuries and identify drivers. Tailboards, Department Safety Action Plan, and 1:1 coaching will all be utilized to address common drivers.
	Employee SPMVI	0		3		12		9	3		
	GT Work - LWD Rate (GC & Contractors)	0.180		0.180		N/A		0.251	0.240		
	GT Work - SPMVI Rate (GC & Contractor)	0.160		0.160		N/A		0.267	0.200		
	GD Work - LWD Rate (GC & Contractors)	0.480		0.480		-		0.251	0.610	1 LWD- Crewman over exerted back 1 LWD- Crewman caught foot in a hole and hurt knee	
	GD Work - SPMVI Rate (GC & Contractor)	0.030		0.030		-		0.267	0.350		
	GD SIF Incidents	-		-		-		Tracking Only	5	-	
	SITG - Mains	92.866		96.6875		100.22		100.22	97.86		
	SITG - Services	43.134		42.481		48.95		48.95	42.3		
	Miles of Distribution Mains Replaced	12.1		41.9		126		126	29.8	The variance is primarily driven by movements in project start dates in the unit price contractor portfolio. 62 projects have been delayed YTD, while only 19 have been accelerated.	Program is scheduled to meet its year end target.
	Cross Bore Inspections - Legacy Program	901		4,618		35,000		40,000	3,717	Below target due to lag in individual permitting of inspection parcels as well as inefficient resource scheduling.	SAR action plan in progress to support recovery from slow inspection progress; transition to internal management of sewer camera inspection in progress.
	Cross Bore Inspections - New Construction			Under Development					Under Development		
	ILI Index			0.70		1.00		1.00	0	Program had to reshuffle 12"x16" runs to allow for tool repair, cutouts and project conflict resolution due to schedule changes. During L-132 MFL run, the tool became lodged and had to be cutout.	Team is working on concurrent plans to have tools retrofitted both from 3P and Rosen for L-132 rerun in September.
	ILI: Miles made piggable	44.3		45.84		111.45		111.45	1.51		
	ILI: Miles Inspected	34.11		60.69		336.2		336.2	22.28		
	Third Party Dig-in Rate	1.76				2.03		2.03	1.61		
	Dig-in Rate due to PG&E At-Fault	0.28	-	0.17	-	-	-	Tracking Only	0.16	-	
	Dig-in Rate due to No USA Ticket	0.89	-	0.96	-	-	-	Tracking Only	0.98	-	
	Gas Emergency Response Time	19.8		20.25		21		21	20.33		
	Business Hours (9-5, M-F)	18.31		18.7		19		19	18.77	-	
	Outside Normal Business Hours (including weekends and holidays)	21.56		22.12		23		23	22.22	-	

Gas Operations - 2016 Line of Sight

Focus Area	Metric Name	Current Period Performance		YTD Performance	EOY Forecast	EOY Target	Previous Month YTD Performance	Variance Explanation / Operational Summary	Recovery Plan / Actions to Maintain
Safe	Risk Mitigation - BPR							Please see Recovery Plan section for All variance and recovery plan information.	1_Locate and Mark: Implementation has not begun. Next steps include identifying gaps; 6_Cross Bore Legacy Program •Cross Bore inspection and the Cross Bore prevention programs have been consolidated under GC to centralize Cross Bore inspection resource management. •Preparing inspection scope outside of San Francisco to get back on track for completing the planned number of inspections.
	Improve project identification and prioritization phase of the GD S2 process			Est. Q2		80%	Est. Q2		
	Miles of Trans. Pipeline Strength Tested	-	-	23.2	80	80	16.4	Schedule adjustments were made based on current pending rate case. Still on track for EOY Goal.	Back to Green June 2016.
	# of EPC Violations	0		0	0	0	0		
	% PSSRs completed	57%		54%	>50%	50%	53%	On Track	
	% PHAs completed	82%		69%	>50%	50%	68%	On Track	
	ISO 55001 Re-Certification								
	PAS 55 Re-Certification								
	API 1173 Re-Certification								
	RC 14001 Certification								
	CAP Engagement	3.28%		28.62%	31.00%	31.00%	25.3%		
	CAP Initiation	2.87%		21.79%	Tracking Only	-	Tracking Only	18.3%	
	CAP Quality	97%		95%	90%	90%	94.3%		
	Maintain Adherence to CAP NRT Quorum	100%		96%	95%	95%	95.5%		
	% of High and Medium Risk CAP items closed on-time	95.00%		90.50%	95.00%	95.00%	90%	CAP items not closed in a timely manner. CAP coaches will work with organizations to help understand what is preventing them from closing items prior to the due date.	Weekly reports will be sent out showing both overdue items and items that are coming due to help prevent items from being closed beyond the due date.
	LOTO Deployment Initiative			Complete		100.0%			
	Complete Leading With Safety (BST) Training Plan	84%		84%	100%	100%	80%	For the month of May we reached 84% of our 100% attendance target. This percentage is based upon our expected attendance, and the actual attendance number. The variance here can be attributed to leaders who may have been unable to attend workshop for various reasons.	In additional make-up workshops, and utilizing email communications, for the month of June we will begin the new additional process of working directly with the clerks of leadership who need to attend workshops. This will help to assist with rescheduling EE's who may have canceled out of, or missed workshops.
	Department Safety Action Plan			Est. Q2			Est. Q2		
	NTSB Segments Completion			Under Development			Under Development		

Gas Operations - 2016 Line of Sight

Focus Area	Metric Name	Current Period Performance	YTD Performance	EOY Forecast	EOY Target	Previous Month YTD Performance	Variance Explanation / Operational Summary	Recovery Plan / Actions to Maintain
Reliable	Quality Index	1.26	1.43	1.00	1.00	1.42		
	Transmission Construction	0.27	0.22	1.00	1.00	0.19		
	Leak Survey	5.36	6.92	7.74	7.74	8.25		
	Leak Repair	8.33	7.01	5.80	5.80	6.7	Gas was detected at 8 locations checked, out of 96 total locations in May. The system wide total is 499 QM evaluations (379 Below Ground and 120 Above Ground) with 35 initial findings. The system wide initial finding error rate YTD of 7.0% is a result of the locations that had the presence of gas. This metric stayed Red in May. The current months performance is 8.33 and has digressed the YTD current score to 7.01. (target is 5.8). There are 8 pending BG findings that will need construction contacts identified to complete the investigation. Inadequate AG repairs continue to be driven by tightening. BG repairs are still new leaks found when utilizing the re-check criteria upon finding presence of gas at the repair location.	A leak repair action plan was approved by QPIC and in March was shared with Gas Operations Directors. The three step plan addresses 70% of 2015 findings. • Draft a job aid to define the proper Post Repair Investigation to determine if additional leaks are in the immediate area. (BG) • Draft a job aid to define when "tightening" is an appropriate method. (AG) • In 2016 all BG 3's found will be investigated to determine if this is a failed repair or new leak • Currently working with M&P and Integrity Management on a pilot in Sacramento requiring all AG leak repairs to be completed by removing, re-doping and replacing the valve vs tightening. Proposed pilot date is 7/1 with follow up QM 9/1. • Based on pilot success official WP updates to follow. • Evaluating the QM results for BG repaired assessments to determine actual missed leak repairs.
	Locate & Mark	3.64	2.05	2.20	2.20	1.42	YTD there have been 16 finding related to the 782 USA Ticket #'s that were assessed, 15 no marks and 1 mis-mark. Locate and Mark has been challenged to maintain a competent highly trained workforce due to a high level of attrition. Competency issues are also compounded by the 19% volume increase YTD which has resulted in high levels of OT and 7 day work weeks which is not sustainable. Implemented Job aid and had conversations with the supervisors. QM/L&M Leadership is holding monthly calls to review mis-marks and no-marks with all Supervisors. LM Supervisors are to begin utilizing the lead positions to perform QC assessments on locators following the QM assessment forms. Additionally leads will begin performing ride-alongs with new employees.	Onboarding 100 contractors to cover normal operations and special projects (Google Fiber). Locate and Mark has hired 3 new supervisors in the North and 7 in the South. Training and support is being dedicated to develop the necessary skills to effectively produce quality outcomes from Locate and Mark leadership. The lack of experience could lead to inadequate coaching and results in the field.
	Distribution Construction	0.54	0.49	0.80	0.80	0.47		
	Valves	0.00	0.08	1.00	1.00	0.14		
	Regulators	0.00	0.31	1.44	1.44	0.42		
	Field Service	2.72	2.07	1.70	1.70	1.78	QM FS-GSR completed 147 assessments and identified 2 hazards and 2 potential hazards in May. YTD there has been 10 findings on the 484 assessments conducted. The operational issues are the Field Personnel failing to identify: 1. Breach vapor barriers on FVIR water heaters2. Improper appliance flex connectors	Working with the Academy on the development of Virtual Learning (VL) courses for clarification of new procedures. Using VL to get the issues out in front of the GSRs through continuous learning. QM FS is collaborating with FS System Wide Quality Lead, Blaine Cobb (Area 4 FS Manager) to drive improvement and strategize on how to effectively use QM FS resources for targeted assessments and mentoring ride-alongs. QM FS is currently working with partners on a 5-minute meeting or VL curriculum to address trending issue regarding FVIR water heater hazards. VL curriculum is also underway to address Carbon Monoxide documentation and Gas Leak Investigations. Long term plans: Train Lead GSRs to perform local assessments. Continue to develop the training curriculum.
	Large Over Pressure Events	0	1	3	4	1		
	Total Over Pressure Events	0	3	13	16	3		
	Grade 2/2+ Leak Backlog (YE target)	-	1,999	100	100	1,889	Bundled repair is ramping up to address growing backlog across the system.	Bundled repair is moving through its work plan. Currently working through Sacramento (BG Backlog: 145), and moving to Stockton (BG Backlog: 46), Peninsula (BG Backlog: 165) and De Anza (BG Backlog: 59). These areas account for 31% of the current below ground backlog.
	Above Ground	-	677	-	29	632		
	Below Ground	-	1,322	-	71	1,257		
	Grade 2/2+ Leak Backlog (Rolling 12 month ave)		1,625	1,074	1,074	1,623		
	Grade 3 leak backlog (YE Target)	-	16,791	-	15,333	16,200		
	Above Ground		7,354	-	TBD	6,693		
	Below Ground		9,437	-	TBD	9,507		
	Meter Set Leak Backlog (YE Target)	72,305	72,305	90,153	111,976	71,438	We will be able to perform additional MSL backlog due to the Meter Set Leak Meter Change project (22k units additional)	

Gas Operations - 2016 Line of Sight

Focus Area	Metric Name	Current Period Performance	YTD Performance	EOY Forecast	EOY Target	Previous Month YTD Performance	Variance Explanation / Operational Summary	Recovery Plan / Actions to Maintain
Reliable	Dist. Network SCADA Units Installed	11	30	196	196	18	<ul style="list-style-type: none"> •New ERX PM number process this year slowed ERX work down the first few months. Last year we had a single program PM number for all ERXs, this year Mapping required a separate PM number for each individual ERX. This required a lot more work upfront as each ERX had to go through Estimating group first. •Large number of RTU SCADA work in San Francisco this year which resulted in longer civil construction duration due to unknown underground facilities. •Expected permitting delays, especially in San Francisco, for RTUs 	<ul style="list-style-type: none"> •Estimating has ramped up •Increased number of civil construction crews from 2 to 5 •Ramp up of civil construction and commissioning over the next few months to get back on track
	Community Pipeline Safety Initiative Index		1.63	1.00	1.00	1.96		
	Structure (Miles)	10.9	42.8	90	90	31.91		
	Vegetation (Miles)	39.19	193.12	500	500	154.1		
	% Work Plan Adherence			80%	80%	71%		
	% Work Ready by Target Date	5.0%	95.0%	100.0%	100.0%	0.93	Late identification of HPR, Reg Station and the addition of SCADA work to the DEP has slowed the completion of the overall workplan	For SCADA, many of the units are ERX units and only take 1 hour of estimating time so catch up will be quick
	Unplanned Customer Curtailments		Under Development		96.3%	Under Development		
	Outage Scheduling Accuracy	63%	70%	69%	68%	72%		
	Gas Asset Mapping Duration - Distribution	60	43	<35	<35 Days	39	Current period performance reflects on the high volume of 2015 unmapped and large aged mapping jobs.	As we reduced the 2015 unmapped and other high age jobs, our forecast will improve. Additionally, we received approval to increase head count by 14.
	Gas Asset Mapping Duration - Transmission	20	41	149	<150 Days	26	YTD changed to reflect work from March 1, 2016 through current period in order to measure new work coming in after the GT-GIS system workflow was implemented. No jobs have been fully mapped yet. Sixteen expense jobs have moved through the process but no mapping was required.	
	Gas Asset Mapping Duration - Facilities and Other	0	118	164	<165 Days	24	A new As-Built process was developed for facilities and has rolled out. Tracking has been initiated for stations work in order to properly route jobs through the required workgroups in accordance with the new process. No jobs have moved completely through the process as of yet. Meetings are still being held weekly to manually track these jobs.	
	# of Instances of OQ related findings		Under Development			Under Development		
	Compressor Reliability %	92.48%	98.18%	95.97%	96.32%	99.21%	Emission system failure at Kettlemen, Chronic failure at Los Medanos, new failure at Gerber	Prevent from Re-occurrence through awareness and tracking.
	GT Revenue	\$43.46	\$213.38	\$810.80	\$806.38	\$126.76	Based on the proposed decision in the 2015 GT&S Rate Case with new rates effective in July, the total revenue forecast is \$4.4 million above budget at year-end. Current month revenue is below budget mainly driven by lower backbone and local transmission revenues than the budget.	
	GD Average WCD Churn Rate	1.90	1.90	2.60	3.00	1.90		
	GT Average WCD Churn Rate	3.40	3.14	3.00	3.00	3.10		

Gas Operations - 2016 Line of Sight

Focus Area	Metric Name	Current Period Performance		YTD Performance	EOY Forecast	EOY Target	Previous Month YTD Performance	Variance Explanation / Operational Summary	Recovery Plan / Actions to Maintain
Compliance	Compliance Mitigation - BPR	-	-					<p>Corrosion Mitigation #2 – Asset Inventory: There is a need to identify the proper owner of the corrosion asset inventory and subsequent steps to ensure there is a single database that ties assets with maintenance assignments SAP and mapped appropriately in GT GIS.</p> <p>Corrosion Mitigation #4 – Low Pipe-to-Soil Potentials Identified by Others: This mitigation now incorporates the 720 additional low read locations discovered through the second historic records deep dive, in addition to the 670 low reads discovered through the first deep dive. This may push the target completion date back to 2018 pending any land/environmental constraints.</p> <p>Corrosion Mitigation #6 – Internal Corrosion (IC) Program Roadmap Implementation: Identifying appropriate resources, the need to update procedures, and training completion associated with drip maintenance resulted in delays in implementing the IC Program roadmap.</p>	<p>Corrosion Mitigation #2: Corrosion Engineering will identify owner by June 2016 with the goal to start developing and implementing a complete asset inventory by the end of 2016.</p> <p>Corrosion Mitigation #4: Addressing the 1370 low read locations is top priority for Corrosion Engineering. The current plan is to complete mitigation of the original 670 low reads by end of 2016, pending any land environmental constraints. For the new 720 list, the plan is to investigate all locations by end of 2016 and complete mitigation by end of 2018, pending any land/environmental constraints.</p> <p>Corrosion Mitigation #6: Lead maintenance department was identified for drip sampling and field training was completed in late March. Ramp up in drip sampling expected for upcoming months. SAP team is building Drip maintenance plans for AMLTD and AMBBS solutions. Corrosion Engineering is planning a deep dive into PFLs and will reconcile various databases to have a complete and accurate Drip dataset by Q4.</p>
	Compliance Desk Error Rate					1.0%	46.0%		
	Compliance Date Adherence - SGO reporting			Under Development			Under Development		
	Compliance Date Adherence - Inoperable Valves	0		0	0	0	0		
	Compliance Date Adherence - Digs	0		0	0	0	0		
	NOVs					Tracking Only			
	Internal review compliance findings	3		3	1	1	3		
Affordable	Gas Ops Base Expense	\$53.93		\$224.16	\$496.62	\$548.98	\$170.53	EOY favorable variance reflects approved GT holdback	EOY favorable variance reflects approved GT holdback
	Gas Ops Base Capital	\$136.03		\$598.08	\$1,477.10	\$1,507.49	\$461.85	EOY favorable variance reflects approved GT holdback	EOY favorable variance reflects approved GT holdback 12/2016
	Expense Affordability	\$1.60		\$8.00	\$47.10	\$47.10	\$6.40	Timing due to delays in super crew performing repairs in leak management work	Deploying SuperCrews underway
	Capital Affordability	\$0.00		\$0.00	\$10.30	\$10.30	\$0.00	Main replacement unit cost impacts due to more jobs being trenched	
	Average Time for Main Leak Repair	-		43.9	30	30	42.69	Main job times have tremendous variations. Current year has had number of very high hour (complex) jobs that have driven the average upwards.	<p>1) Cross functional team for Hours per Unit Improvements has been established (launched 4/2016)</p> <p>2) Levers - a. Clean up data – need to know where do we really stand today b. Leverage Super Crew Bundling – efficiency in job time (some productivity gains but not consistent performance do to the wide variation in the characteristics of each main repair) c. 3 man crews– efficiency in job time d. Direct Supervision at job sites– efficiency in job time e. 50K replacement criteria – improves system reliability and safety</p> <p>3) Communicate Expectations – higher awareness of metric with field</p> <p>4) Drive Performance (SGO metrics, leverage F3 and Tier 4) – need a collaborative effort</p>
	Average Time for BG Service Leak Repair	-		18.12	14	14	18	Greater mix of more labor intensive below ground leak repairs plus lower BG leak capitalization rate than planned drove average higher than target.	<p>1) Cross functional team for Hours per Unit Improvements has been established (launched 4/2016)</p> <p>2) Levers- a. Clean up data – need to know where do we really stand today b. Leverage Super Crew Bundling for below ground and GSR's for above ground c. Crew sizing d. Direct Supervision at job sites– efficiency in job time</p> <p>3) Communicate Expectations – higher awareness of metric with field</p>
	Average Time for Meter Set Leak Repair	46.6		46.6	46.7	46.7	47.2	YTD Performance is returned to green. Job time may fluctuate month to month.	On track to ensure a 46.7 average MSL repair time
	Average Time for AG Service Leak Repair	4.55		4.15	1.5	1.5	3.85		
	% of Gas contract spend managed by Contract Mgmt.			Under Development			Under Development		
	Savings for contracts under management by Contract Mgmt.			Under Development			Under Development		
	SGO and Super Crew Related Performance			Under Development			Under Development		
	SGO Affordability (M&C Crew Sizing/M&C OT)			Under Development			Under Development		
	SGO Rollout Plan Execution								

Gas Operations - 2016 Line of Sight

Focus Area	Metric Name	Current Period Performance		YTD Performance		EOY Forecast	EOY Target	Previous Month YTD Performance	Variance Explanation / Operational Summary	Recovery Plan / Actions to Maintain
Customer	Customer Commitments Met					94.00%	94.00%	89%		
	GRC/GT&S Data Response Within Deadline	100%		100%		100%	100%	100%		
	Adherence to GRC/GT&S Filing Schedule	100%		100%		100%	100%	92%		
	JD Power Gas Bus-Field Svc Index	818		818		Tracking		818	Metric for 2016 has not been set yet (Customer Care has moved this to a tracking metric for 2016) (data for this metric collected from May to December each year) - Final results reported annually in February.	
	JD Power Gas Res-Field Svc Index	785		785		Tracking		785	Metric for 2016 has not been set yet (Customer Care has moved this to a tracking metric for 2016) (data for this metric is the 2015 Residential Gas Score that came out in September 2015)	
	Bourke Survey Results			Est Dec.			9.0	Est Dec.		
	Average CNG Station Throughput			Under Development				Under Development		
	Install Fuel Cell Capacity in PG&E Territory			Under Development				Under Development		
	Average Time to Connect - Fuel Cells			Under Development				Under Development		
People	Mandatory Training - % Compliance	78%		62%		80%	100%	59%	A&RM: 60% E&D: 61% T&D Ops: 55% T&D Cons: 73% MP&P: 72% GSO: 63% SGO: 90%	
	% Employees with Career Development Plans			Est. Q2				Est. Q2		
	Know, Feel, Do Survey Results (Qtrly)			4.13		TBD	TBD	4.13		
	Front-line Supervisor Enablement Program	33%		33%		100%	Increase supervisor field time by 3-6 hours	33%		
	Workforce Strategic Alliance Enhancements			Under Development				Under Development		
	Premier Survey Action Plan (Director and above)			Est Q2				Est Q2		
	Supplier Diversity Initiative			Under Development				Under Development		

EXHIBIT 22

Gas Operations

2017 S-2 Executive Discussion

Updated 3/12/2019 7:45 PM



Disclaimer:

This presentation contains forward-looking statements, and actual results could differ materially from the guidance presented and underlying assumptions.

- i. Section 1: Executive Summary**
 - i. Gas Placemat
 - ii. S1 to S-2 Translation
 - iii. GO 2018-2019 Plan Summary
 - iv. Planned Performance (BPR) Summary
 - v. 2018-2019 Financial Summary
 - vi. 2020 GRC Walk
- ii. Section 2: Planned Performance (BPR)**
 - i. Metric Details
- iii. Section 3: Work Execution**
 - i. YoY Program Unit/Cost Changes - Plan Details
 - ii. Work Readiness – Plan Details
 - iii. Work Resourcing - Plan Details
 - iv. One PG&E Safety & Health Plan Summary
 - v. Risk Response Plans (RAMP)
 - vi. Compliance Program Maturity
- iv. Section 4: Financial Plan**
 - i. Financial Dashboards
- v. Section 5: Appendix**
 - i. Demand Alignment

Section 1

Executive Summary

Continue to deliver Safe, Reliable, Affordable, and Clean Energy to Customers through the risk-based prioritization of our work.

Operational Excellence



Deliver operational excellence

Consistently improve the safety and reliability of gas services



PUBLIC SAFETY

Make Piggable 304 mi (~32% system), Strength Testing 264.7mi, 175 mi Distribution Main Replacement, Complete CPSI



RELIABILITY

Large Overpressure Events (reduce to 4 by 2019)
SCADA Visibility (Dist. 64% by 2019)



COMPLIANCE

Maintain PAS55, ISO 55001, RC 14001, API 1173
Promote Speak Up Culture
Maintain IGMM Level 3
Maturity in records



PEOPLE

Achieve [redacted] Premier Survey
95% management employees with development plan

Position for Future

Position PG&E for the future

Evolve our business model to adapt to CA's clean energy economy and competitive pressures



Provider of Choice

Be the provider of choice

Deliver affordable gas and meet evolving customer expectations



CUSTOMER

JD Power Business, Residential Safety & Reliability [redacted] by 2022)



AFFORDABILITY

Execute Gas Stewardship and sustain via Lean Management
Electric & Gas Ops Back Office Realignment and Demand Alignment



MONITORSHIP

Monitor compliance and assess controls effectiveness

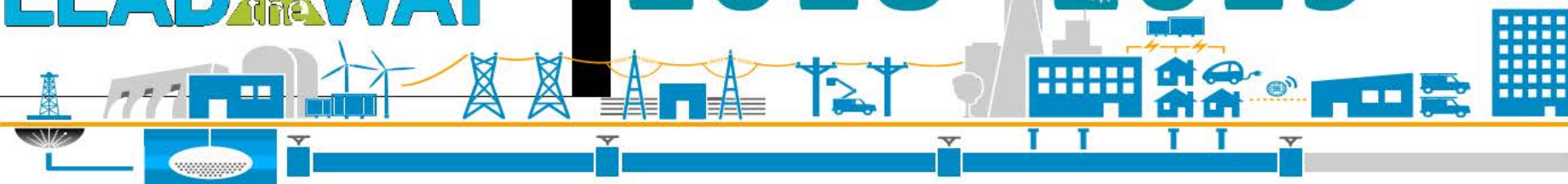


REGULATORY

2019 GT&S, 2020 GRC, Pipeline Safety Regulations, Leak Abatement OIR, and RAMP

LEAD the WAY

2018-2019



S-1 Goals	Major 2-year Goals	2017 BPR Metrics	'17 Fcst	'19Tgt	'22 Tgt
<div>Public Safety</div>	<ul style="list-style-type: none">Continue to mature Gas Safety Excellence as Safety Management System to quantify and reduce risk, eliminate public safety incidents and improve overall asset conditionMaintain all Gas Safety Excellence Certifications (PAS55, ISO 55001, RC14001, API1173)Prevent damage to Gas facilities through enhanced public awareness and excavator programs including Gold Shovel, Habitual Offender, and 811 AmbassadorsMaintain [REDACTED] performance in Emergency ResponseImprove process maturity within As-Built Mapping processes to meet all target cycle timesExecute 515.2 miles of strength testing with bundled efficiencies with In-Line Inspection (ILI)Maintain pace of ILI transmission make piggable program to achieve 66% by 2026Replace 22.7 miles of vintage pipeImprove corrosion control program to address internal and external corrosionRepair all Grade 3 below ground Transmission system leaksPartner with customers and cities/municipalities to complete implementation of the Community Pipeline Safety Initiative (CPSI) in 2018Mitigate top risks identified through Session D (e.g. Transmission pipeline failure, Natural Gas Storage Pipeline or surface facility failure)Execute 344 miles of distribution main replacementinspect 105,000 units of high-risk sewer mains / laterals for cross-boresMaintain Picarro coverage at 75% of PG&E's service territory	Dig-In Reduction ^{STIP}	1.92	1.72	1.52
	Gas Emergency Response (mins) ^{STIP}	20.30	21.00	21.00	
	ILII – Inspection Miles ^{STIP}	254	709	709	
	ILII – Upgrade Miles ^{STIP}	132	418	418	
	Distribution Main Replacement Miles	143.5	169	169	
	Vintage Pipe Miles Replaced ^{NEW}	3.5	2.88	2.88	
	Strength Tested Miles	250.5	80	80	
	Cathodic Protection Availability (Transmission) ^{NEW}	NA	90%	93%	
	Shut in the Gas Average Time (min) - Mains	102.38	102	91.56	
	Shut in the Gas Average Time (min) – Services	46.08	45	40.12	
	Legacy Cross Bore Inspections (system wide)	30,000	62,500	45,000	
	Transmission Asset Mapping Duration ^{NEW}	N/A	150 days	TBD	
	Grade 2 Open Leaks	100	100	100	
	GO Risk Mitigation				

S-1 Goals	Major 2-year Goals	2017 BPR Metrics	'17 Fcst	'19Tgt	'22 Tgt
Workforce Safety	<ul style="list-style-type: none"> Empower employees and contractors to take action by enabling an open climate to raise issues and addressing all safety concerns Execute Safety Action Plan to reinforce safety culture and promote workforce wellness to finish each task injury and incident free. Full operationalization of Enterprise SIF program into existing Gas procedures and processes Enhanced Driver Check Program; Vehicle Safety Technology (VST) implementation and adoption 	Lost Work Day Case Count	46	34	16
		DART (Days Away, Restrictions & Transfers) Count	208	152	107
		Total Number of DART days	10,789	9,737	8,348
		Serious Preventable Motor Vehicle Incident Rate/Count	0.177/9	0.099/5	0.099/5
		SIF: Timely Corrective Action Completion	90%	95%	95%
		SIF: Quality of Corrective Action	12	12.5	14
		Timely Reporting of Injuries	75.1%	75.5%	86.5%
Compliance	<ul style="list-style-type: none"> Successful compliance program development to achieve Level 3 program maturity on all compliance programs Expand the Quality Assurance Programs from Field to Records 	Methane Emission Reduction ^{NEW}	N/A	TBD	TBD
		GO Compliance Mitigation			
		Quality Index – Field	1.68	1.00	1.00
		Quality Index – Records ^{NEW}	N/A	1.00	1.00
Affordability	<ul style="list-style-type: none"> Embrace financial stewardship to take action to lower cost structure to achieve full body of work within financial targets. Continue to move towards a process-driven organization by providing structure, training and governance as a means to being both effective and efficient. Achieve Delivery of Rate Case Targets through Efficiencies Sustained through Lean Management 	Average Time for Main Leak Repair (hrs)	30	27	27
		Average Time for Below Ground Service Leak Repair (hrs)	14	12	12
		Capital Spend	\$1440.1	\$1620.0	\$1648.6
		Expense Spend	\$658.2	\$787.3	\$786.8



S-1 to S-2 Translation

S-1 Goals	Major 2-year Goals	2018 BPR Metrics	'17 Fcst	'19 Tgt	'22 Tgt
Employee Engagement	<ul style="list-style-type: none">Lead, engage and develop workforce to be successful today and long-term while continuing to strengthen partnership with ESC and IBEWSuccessfully integrate Mandatory training and employee development initiatives into Resource Management planningAddress employee engagement areas of opportunity through Premier Survey Action Plans and Operational Health Index	N/A			
Customer Satisfaction	<ul style="list-style-type: none">Rebuild trust and strengthen relationships with customers and local communities by always acting with integrity and through open, honest, transparent and timely actionsEvaluate asset investments, new technology, and new growth opportunities to decarbonize gas supply and reduce methane emissionsMaintain appointment availability window for customer appointments and minimize missed appointments				
Operational Reliability	<ul style="list-style-type: none">Execute the right work, the right way, through risk-informed investments that are planned and prioritized.Operate the system to meet reliability requirements, design day standards and manage reliability risk.Continue to address drivers of Over Pressure Events including improvement of human performance through implementation of High 5 Tools and improving mitigations related to debris and liquid contaminants in pipelines	Large Over Pressure Events	8	4	3

Gas 2018-2019 Plan Summary

Work

Top Work Portfolio Changes & Drivers

Program	Driver		2018-19
Vintage Pipe Replacement	2018 GT&S Mandate to replace 20 mi	↑	23.4mi
Strength Testing	15 – '18 GT&S Mandate to test 680 mi	↑	344.7 mi
Main Replacement	17-'19 GRC commitment to replace 487.5 mi	↑	344 mi
Leak Management	Leak Abatement OIR (GD) & GO-112F (GT)	↑	Address leaks found
Storage Well Reworks	DOGGR Regulation Changes	↑	210 reworks

Resources

	2018 Δ%	2019 Δ%
Employees	0.2% ↓	1.5% ↓
NEW	0% ↑↓	0% ↑↓

Open items:

Appropriate headcount for Leak Abatement OIR and Main Replacement volume uptake

Top Drivers of Resource Changes

- ↑ Leak Abatement OIR (GD)
- ↑ Main Replacement volume

Financials

	2018 (\$M)	2019 (\$M)
Exp Savings	\$281.6	\$125.9
Cap Savings	\$308.4	\$325.2

Financial Gaps: (+) Overrun; (-) Underrun

Account	'18 (\$M)	'19 (\$M) ¹
Base Exp	4.5	34.8
TIMP BA Exp	-4.2	81.7
Base Cap	1.5	329
L-407	-1.5	N/A
WRO BA	0	N/A
TIMP BA Cap	0	N/A

Top Efficiency Initiatives

- Pre fabrication of district Reg Stations
- Casing Expense Units
- Productivity - SMED, Crew Sizing, Bundling, Scheduling - First Wave of Divisions
- Overtime - T&D Gas Operations

✓ Safety

✓ Risk

✓ Compliance

Key Success Factors for 2018 Plan Execution

- Efficiency Initiatives**
 - Continue 2017 momentum and drive implementation of lean management practices

- Sourcing**
 - Drive contractor accountability, continue competitive bidding and further supplier qualification

- Tech Project Execution and Funding Support**
 - To ensure delivery of IT projects (GT GIS upgrade, Date Loader for TIMP, Geohazard hardware upgrade, and AMBBS) necessary for mitigation/control of top Gas risks such as a) Transmission Pipeline Rupture with Ignition, b) Loss of Containment with Ignition at Storage Facility
 - GD GIS enhancement to maintain data integrity

- Land and Environmental Support**
 - To ensure permitting timelines with BLM and other agencies for L-300A/B Strength Test/ILI bundle are met
 - Permit delays will put these programs at mandate/commitment deficit

¹ Alignment needed between 2019 – 2022 S2 Financial Targets and the 2019 GT&S Forecasts

2018 Proposed BPR Scorecard

Changes to Scorecard

	2017 EOY Fcst	2018 Target ¹	2019 Target ¹
New Metrics			
Strength Tested Miles	250.5	264.7	80
Methane Emission Reduction	n/a	TBD	TBD
Transmission Asset Mapping Duration	n/a	150 days	150 days
Vintage Pipe Miles Replaced	6.3 miles	20 miles	2.88 miles
Quality Index – Records	TBD	1.0	1.0
Cathodic Protection Availability (Tr)	n/a	89%	90%
Removed Metrics			
Corrective Action Program (CAP) Engagement	43%	42%	43%
Distribution Network SCADA Visibility	237 (50%)	144 (57%)	150 (64%)
Work Execution Efficiency	1.0	1.0	1.0
Financial Metrics			
GO Capital Spend	\$1440.1	\$1844.6	\$1620.0
GO Expense Spend	\$658.2	\$787.6	\$787.3

Reason for Adding

GT&S Rate Case Mandate

Environmental sustainability

Driving records quality

GT&S Rate Case Mandated Program

Driving records quality

Risk monitoring on Trans portfolio

Reason for Removing

Enterprise-wide effort

Metric is consistently green by EOY

Incorporated into efficiency tracking

1 1st Quartile

2 2nd Quartile

3 3rd Quartile

4 4th Quartile

For internal discussion purposes only

1. Targets are subject to change based on Gas Operations Leadership Team discussion

2018 Proposed BPR Scorecard

Continuing Metric Targets & Trends

	2017 EOY Fcst	2018 Target ¹	2019 Target ¹
Public & Employee Safety			
Dig-In Reduction ^{STIP}	1.92	1.82	1.72
Gas Emergency Response (mins) ^{STIP}	20.30	21.00	21.00
Shut in the Gas (SITG) - Mains (min)	102.38	102.00	102.00
Shut in the Gas - Services (min)	46.08	45.00	45.00
Lost Work Day (LWD) Count	46	40	34
SPMVI Rate/Count	0.177/9	0.099/5	0.099/5
SIF: Timely Corrective Action Completion	90%	95%	95%
SIF: Quality of Corrective Actions	12.0	12.0	12.5
Timeliness of Reporting Injuries	75.1%	73.2%	75.5%
DART Count/Days	208/10,789	161/10,250	152/9,737

Acronym	Definition
DART	Days Away, Restrictions & Transfers
ILI	In Line Inspection
LWD	Lost Work Day
SCADA	Supervisory control and data acquisition
SIF	Serious Injury or Fatality
SITG	Shut in the Gas
SPMVI	Serious Preventable Motor Vehicle Incident

1. Targets are subject to change based on Gas Operations Leadership Team discussion

1 1st Quartile

2 2nd Quartile


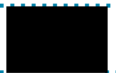

3 3rd Quartile

4 4th Quartile


For internal discussion purposes only

2018 Proposed BPR Scorecard


Continuing Metric Targets & Trends


	2017 EOY Fcst	2018 Target ¹	2019 Target ¹
Operational			
In-Line Inspection (ILI)Index ^{STIP}	1.10 (l: 254 /U: 132)	1.00 (l: 166.7/U: 162.7)	1.00 (l: 709/U: 418)
Distribution Main Replacement Miles	143.5	175.5	169
Grade 2 Open Leaks (Year End)	100 	100 	100 
Legacy Cross Bore Inspections	30,000	42,500	62,500
Average Time for Main Leak Repair (hrs)	30	27	27
Average Time for Below Ground Service Leak Repair (hrs)	14	12	12
Large Over Pressure Events	8	4	4
Quality Index - Field	1.68	1.0	1.0

1. Targets are subject to change based on Gas Operations Leadership Team discussion

 1st Quartile

 2nd Quartile

 3rd Quartile

 4th Quartile

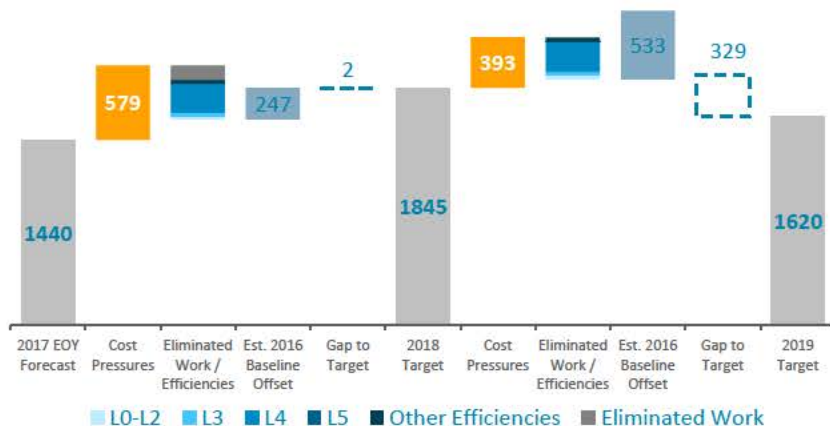
For internal discussion purposes only

2018 – 2019 Financial Summary

2018-2019 Expense (\$M)^{1,2}



2018-2019 Capital (\$M)^{1,2,3}



Key 2018/2019 Actions

- Continue to monitor 2017 YTD unit cost favorability
- Drive Pull forward opportunities
- Continue to drive affordability initiatives
- Use gate funding approach to optimize portfolio management capabilities
- Drive alignment between 2019 – 2022 S2 Financial Targets and the 2019 GT&S Forecasts

2019 Gap Drivers:

Gas Expense

- Integrity Management driven Hydrostatic Testing (\$51.9M increase from 2018)
- Traditional ILI Inspections (\$29.6M increase from 2018)

Gas Capital

- ILI Upgrades (\$115M increase from 2018)

2018-2019 Risks & Opportunities

Opportunities:

GT Expense Pull Forward:

- Atmospheric Corrosion (\$3.9M): 92 station recoats
- Pipeline Markers (\$2.4M): Install 4,256 markers
- Exposed Pipe (\$0.5M): Temporary mitigation of L-401
- Valve program (\$0.4M): 2 valve projects (V-618 and V-619)

GD Capital Pull Forward:

- LNG/CNG Station Assets (\$1.2M)
- SCADA (\$1.3M): Purchase materials

Risks: Increase in volume from 2017 levels on key programs pose an execution risk in terms of resource and ramp-up capabilities

- Pipe replacement: 143 miles (2017) - >175 miles (2018)
- HPR: 375 units (2017) - > 405 units (2018), 440 units (2019)
- Distribution Reg Stations: (41 units 2017 to 50 units in 2018/2019)
- Legacy Cross bore: ramp-up to 62.5k units in 2019 from 42.5k units
- Leak Management: Per SB 1371, moving to a 3-yr leak survey cycle in 2019 will add resource pressure to the portfolio; cost pressures to receive BA treatment

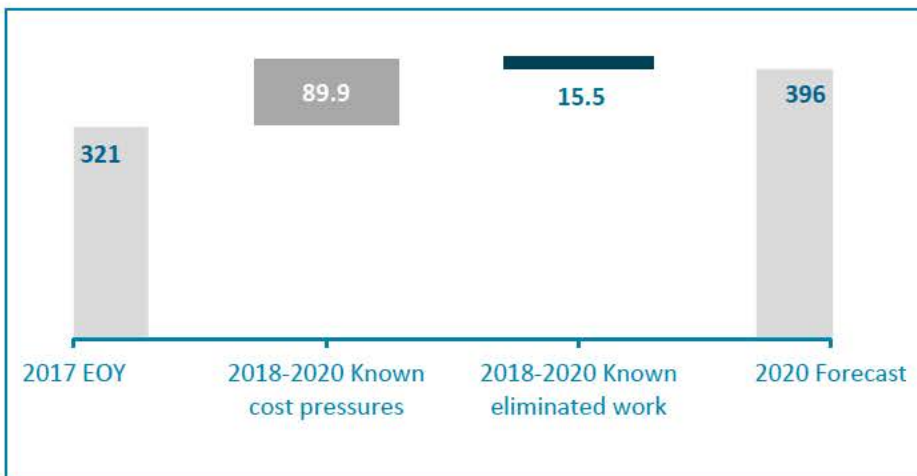
¹ Erosion factors, informed by McKinsey's benchmarking results, are applied as a part of savings estimation process and are anticipated to be in-line with assumptions in GT&S filing

² 2018 and 2019 Expense does not include TIMP BA, Station BA, or IIC. 2018 Capital does not include TIMP BA, WRO BA, L-407, or IIC. 2019 Capital includes TIMP BA and WRO BA in accordance with the 2019 GT&S filing strategy

³ Est. 2016 Baseline Offset is a balancer to reconcile WAVE savings to S2 body of work

S-2 2020 GRC Walk – Distribution Expense

GRC Walk – GD Expense



Key Cost Pressure Drivers

Legacy Cross Bore	\$58.2M
Damage Prevention	\$4.5 M
Corrosion	\$12.6M
GPOM	\$2.1M

Key Eliminated Work Drivers

Leak Management	\$10.5M
Field Services	\$2.5M
Distribution Maintenance	\$2.6M

Key Efficiency Drivers

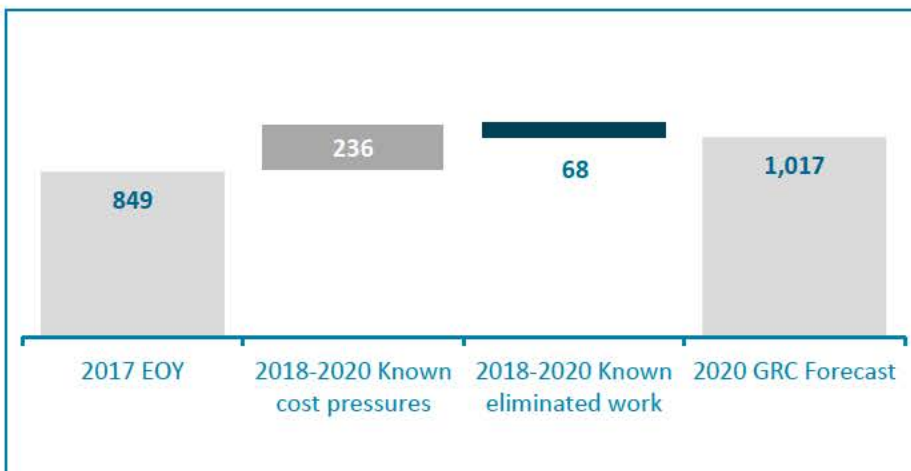
Distribution Maintenance	\$19.2M
Legacy Cross bore	\$14.2M
Corrosion	\$14.4M
Leak Survey	\$8.0M

- 2017-2020 forecast embeds efficiencies.
- Key efficiency drivers reflect savings embedded in 2018 forecast (using 9/1 WAVE)
- As part of GRC process, next step is to true up efficiencies embedded in 2019-2020 forecast with WAVE and align it body of work in 2019 and 2020.

*Eliminated work also includes work reductions due to movement across MATs within a process

S-2 2020 GRC Walk – Distribution Capital

GRC Walk – GD Capital



Key Cost Pressure Drivers

Dist. Pipe Construction	\$118.6M
Dist. Reg Stations	\$23.2M
Capacity	\$20.5M
Leak Management	\$15.4M

Key Eliminated Work Drivers

Dist. Pipe Construction (14A, 14B, 50A)	\$32.6M
Leak Management (52C)	\$1.9M

Key Efficiency Drivers

Dist. Pipe Construction	\$111.6M
Dist. Reg Stations	\$63.8M
WRO	\$31.9M
Dist. Maintenance	\$19.1M

- 2017-2020 forecast embeds efficiencies.
- Key efficiency drivers reflect savings embedded in 2018 forecast (using 9/1 WAVE)
- As part of GRC process, next step is to true up efficiencies embedded in 2019-2020 forecast with WAVE and align it body of work in 2019 and 2020.

*Eliminated work also includes work reductions due to movement across MATs within a process

EXHIBIT 23

Gas Operations BPR

Keys to Success

February 2017

1. BPR and Gas Operations' LoS Scorecard



Gas Operations - Jan-17

	Current Period		YTD		EOY Forecast		EOY Target		EOY Benchmark		2018 Forecast		2018 Target
Public & Employee Safety													
Gas Dig-In Reductions	1.04	■	1.04	■	1.92	■	1.92		2		1.82	■	1.82
Gas Emergency Response (mins)	20.15	■	20.15	■	21.00	■	21.00		1		21.00	■	21.00
GO SIF: Timely Corrective Action Completion (%)		■		■	85%	■	85%		N/A		90%	■	90%
GO SIF: Quality of Corrective Actions		■		■	8	■	8		N/A		9	■	9
Shut In The Gas Average Time (Min) - Mains	109.33	■	109.33	■	102.38	■	102.38		N/A		100.30	■	100.30
Shut In The Gas Average Time (Min) - Services	42.10	■	42.10	■	44.84	■	44.84		N/A		43.94	■	43.94
Lost Workday Case Rate	0.227	■	0.227	■	0.522	■	0.522		N/A		0.353	■	0.353
Lost Workday Case Count	1		1		31		31		N/A		21		21
SPMVI Rate	0.000	■	0.000	■	0.177	■	0.177		N/A		0.158	■	0.158
SPMVI Count	0		0		9		9		N/A		8		8
SPMVI Pending Count	1		1		N/A		N/A		N/A		N/A		N/A
GO Timely Reporting of Injuries	75.4%	■	75.4%	■	73.2%	■	73.2%		N/A		75.5%	■	75.5%
Operational													
ILI Index	0.80	■	0.80	■	1.00	■	1.00		N/A		1.00	■	1.00
CAP Engagement	10.96%	■	10.96%	■	40%	■	40%		N/A		45%	■	45%
Legacy Cross Bore Inspection	511	■	511	■	30,000	■	30,000		N/A		35,000	■	35,000
Distribution Main Replacement Miles	2.2	■	2.2	■	130.2	■	130.0		N/A		169.0	■	169.0
Dist. Network SCADA Visibility	0	■	0	■	237	■	237		N/A		270	■	270
Grade 2 and 2+ Leak Backlog	N/A		294	■	100	■	100				100	■	100
Large Over Pressure Events	1.00	■	1.00	■	4.00	■	4.00		N/A		2.00	■	2.00
Average Time for Main Leak Repair (hrs)	N/A		32.20	■	30.00	■	30.00		N/A		30.00	■	30.00
Average Time for Below Ground Service Leak Repair (hrs)	N/A		14.30	■	14.00	■	14.00		N/A		14.00	■	14.00
Quality Index	2.00	■	2.00	■	1.20	■	1.00		N/A		1.00	■	1.00
Strength Testing Index	1.00	■	1.00	■	1.00	■	1.00		N/A		1.00	■	1.00
Work Execution Index		■		■		■	1.00		N/A			■	1.00
Distribution As-Built Mapping Cycle Time	N/A		23.00	■	45.00	■	45.00		N/A		45.00	■	45.00



Gas Operations - Jan-17

	<u>Current Period</u>	<u>YTD</u>	<u>EOY Forecast</u>	<u>EOY Target</u>	<u>EOY Benchmark</u>	<u>2018 Forecast</u>	<u>2018 Target</u>
Financial							
GO Expense Spending (\$M)	\$36.28	\$36.28	\$784.60	\$784.60	N/A	\$784.59	\$784.60
GO Capital Spending (\$M)	\$64.76	\$64.76	\$1,581.20	\$1,581.20	N/A	\$1,589.50	\$1,581.20
Balancing Account Expense Spending (\$M)	\$10.21	\$10.21	\$198.76	\$146.41	N/A	N/A	N/A
Balancing Account Capital Spending (\$M)	\$7.66	\$7.66	\$189.86	\$179.86	N/A	N/A	N/A
Separately Funded Capital (\$M)	\$1.68	\$1.68	\$143.30	\$152.30	N/A	N/A	N/A
FTE (#)	5,719	5,719	6,093	6,093	N/A	N/A	N/A
Open Requisitions	270	270		N/A	N/A	N/A	N/A
NEW (#)	988	988	972	972	N/A	N/A	N/A
Employee Related Spend per Employee (\$K)	\$0.30	\$0.30	\$5.51	\$5.51	N/A	N/A	N/A
Critical Work							
GO Risk Mitigation Progress	N/A			N/A	N/A		N/A
GO Compliance Risk Mitigation Progress	N/A			N/A	N/A		N/A
GO EPC Project Health	96.40	96.40	90.00	90.00	N/A	90.00	90.00
Other Initiatives and Projects	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Gas Operations - 2017 Line of Sight		Current Period	YTD Performance	EOY Forecast	EOY Target	Previous Month YTD	Variance Explanation / Operational Summary	Recovery Plan / Actions to Maintain
Focus Area	Metric Name							
Safe	Employee LWD	1	1	31	31	38	1 LWD confirmed in January due to injection injury to arm.	The Gas Operations team has conducted local analysis and has also participated in the X-LOB Safety SAR and deep dive at DCP. Gas Operations analysis identified the need to focus in three main areas (lifting, worksite cleanliness and getting in/out of vehicles) as these are common activities leading to injury. Focus will remain high in this area as the teams continue to try to bend the curve. Additionally, Gas will support the One-PGE Safety Action Plan developed through analysis led by Diablo Canyon.
	Employee SPMVI	0	0	9	9	8		
	GO SPMVI Pending Count	1	1	-	-	-	1 incident in T&D Ops where EE rear ended 3rd party.	
	Vehicle Safety Technology	TBD	TBD	TBD	TBD	TBD	Under Development	
	SITG - Mains	109.33	109.33	102.38	102.38	104.43	SITG Mains is Amber due to extremely low volume (only 6 incidents) and a Dig event in Fresno that had a duration over 5 hours. Extensive digging in hard pan soil and difficulties with squeezing in 2 locations were primary driver of extended SITG time.	Plan to return to green as we respond to more events
	SITG - Services	42.1	42.1	44.84	44.84	45.73		
	Miles of Distribution Mains Replaced	2.2	2.2	130.2	130	126.6		
	Legacy Cross-Bore Inspections	511	511	30,000	30,000	511		
	ILI Index	0.80	0.80	1.00	1.00	0.88	Inspection target was less for the month of January due to an unknown retired tap with an internal obstruction in the line. The obstruction would not let our tool pass therefore we were only able to capture .73 of our .97 miles.	
	ILI: Miles made piggable	0.0	0	132	132	107.16		
	ILI: Miles Inspected	0.7	0.7	241.6	241.6	259.49	Inspection target was less for the month of January due to an unknown retired tap with an internal obstruction in the line. The obstruction would not let our tool pass therefore we were only able to capture .73 of our .97 miles.	Return to green by June 2017 as more projects are completed and tied-in.
	Third Party Dig-in Rate	1.04	1.04	1.92	1.92	2.02		
	Dig-in Rate due to PG&E At-Fault	0.10	0.10		Tracking Only	0.2		
	Dig-in Rate due to Not Valid USA Ticket	0.66	0.66		Tracking Only	1.14		
	Gas Emergency Response Time	20.1	20.1	21	21	20.021		
	Business Hours (9-5, M-F)	18.52	18.52	19	19	18.49		
	Outside Normal Business Hours (including weekends and holidays)	22.29	22.29	22	22	21.92		
	Risk Mitigation - BPR	-	-	-	-	-	ILI, Locate and Mark, Capacity project, and Site-Specific programs have all realized various issues causing delay.	ILI - due to an unknown retired tap with an internal obstruction in the line. The obstruction would not let our tool pass therefore we were only able to capture .73 of our .97 miles. Locate and Mark SGO Design - Planning system-wide rollout pending assessment of design. Pilot #2 in Sacramento is being wrapped up after a 2 week extension. Next steps are to reassess what was learned from pilots #1 and #2 and either maintain or scale down design. APD Capacity Projects - Integrated multi-year advanced planning of all transmission work is being implemented to better bundle work. This will reduce system impacts and winter pipeline outages by reducing schedule slippage. Implement Site-Specific Mitigations - 37 milestones completed versus 67 milestones planned in Q4 2016. Due to funding constraints, the duration of the program has been extended by 3 years but the metrics reflect the original schedule.
	Vehicle Safety Technology	TBD	TBD	TBD	TBD	TBD		
	Strength Testing Index	-	1	1	1	89	New Metric - No Index for Last December	
	Miles of Trans. Pipeline Strength Tested	-	7.6	241.5	241.5		No Monthly Target set yet	
	Miles of Trans. Pipeline Engineered	-	102.2	512	512		No Monthly Target set yet	
	# of EPC Violations	0	0	N/A	N/A	2		
	% PSSRs completed	62%	62%	N/A	80%	0.71		
	% PHAs completed	71%	71%	N/A	80%	0.82		
	ISO 55001 Re-Certification						Quarterly Metric	
	PAS 55 Re-Certification						Quarterly Metric	
	API 1173 Re-Certification						Quarterly Metric	
	RC 14001 Certification	-	-	-	-		Objective is to address outstanding action from RC14001 internal and external audits and management review. The team has been on target and no overdue actions.	
	CAP Engagement	10.96%	10.96%	40.00%	40.00%	40.50%		
	CAP Initiation	5.17%	5.17%			33.40%		
	CAP Quality	94%	94%	92%	92%	94.33%		
	Maintain Adherence to CAP NRT Quorum	95%	95%	-	-	98.50%		
	% of High and Medium Risk CAP items closed on-time	97.00%	97.00%	-	-	94.73%		
	Guardian Safety Observations		791.00		Tracking Only			
	Drive Check Hotline Reporting				TBD		New Metric - Under Development	

Gas Operations - 2017 Line of Sight		Current Period	YTD Performance	EOY Forecast	EOY Target	Previous Month YTD	Variance Explanation / Operational Summary	Recovery Plan / Actions to Maintain
Focus Area	Metric Name							
	Quality Index	2.00	2.00	1.20	1.00	1.6215		
	Transmission Construction	0.00	0.00	0.19	0.50	0.21		
	Leak Survey	N/A	N/A	1.27	1.09	5.35		
	Leak Repair	N/A	N/A	6.29	5.80	6.16		
	Locate & Mark	N/A	N/A	0.89	0.79	2.03		
	Distribution Construction	0.15	0.15	0.40	0.50	0.44		
	Valves	N/A	N/A	0.08	0.50	0.07		
	Regulators	N/A	N/A	0.22	0.50	0.29		
	Field Service	N/A	N/A	1.82	1.70	1.8		
	Rectifier Maintenance	N/A	N/A	0.28	0.50	#N/A	New metric in January 2017 - Under Development	
	Pipe To Soil	N/A	N/A	0.20	0.50	#N/A	New metric in January 2017 - Under Development	
	Large Over Pressure Events	1	1	4	4	10		
	Total Over Pressure Events	1	1	15	16	18		
	Grade 2/2+ Leak Backlog (YE target)	-	294	100	100	294		
	Above Ground	-	68			0		
	Below Ground	-	226			0		
	Grade 2/2+ Leak Backlog (Rolling 12 month ave)		1,183			0	No Target	
	Grade 3 leak backlog (YE Target)	-	18,326			18326	No Target	
	Above Ground		7,620			7715	No Target	
	Below Ground		10,706			10743	No Target	
	Meter Set Leak Backlog (YE Target)	64,426	64,426	61,338	61,338	63113		
	GT Average WCD Churn Rate	-	1	3	3	2.4		
	GD Average WCD Churn Rate	-	0	3	3	1.9	Improvements to the 10 day request for approval cycle time we believe is due continual raining weather providing additional time for clearance writers to complete clearance writing tasks for future scheduled work	
	Instrumentation Calibration Violations	TBD					New metric in January 2017 - Under Development	
	Dist. Network SCADA Units Installed	0	0	237	237	198		
	Community Pipeline Safety Initiative Index		1.67	1.00	1.00	1.82		
	Structure (Miles)	31	31	249	249	114.1		
	Vegetation (Miles)	3.1	3.1	25	25	540		
	% Work Plan Adherence	66%	66%	80%	80%	0.78	Inclement Weather, (3-4 times Inclement weather hours for Jan)	Work execution will get back on track as weather improves.
Reliable	Project Execution Index	-	-	-	TBD	-	New metric in January 2017 - Under Development	
	Unplanned Customer Curtailments	No Data Submitted				No Data Submitted		
	Outage Scheduling Accuracy	65%	65%	70%	70%	0.7	During January 2017 we had a total of seven outages shift intra-month. Five of the seven were McDonald Island outages, four well re-works which were moved due to conflicts with other inspection work and an annual max flow test outage which was moved up for efficiency. The two remaining outages that moved were a Pleasant Creek sand inspection now bundled with other Pleasant Creek work and the Tionesta water wash which was re-scheduled due to weather conditions.	Work closely with Reservoir Engineering to reduce the possibility of scheduling conflicts if takes taking longer than planned i.e. build contingency plans. Work to identify outage bundling opportunities much earlier in the scheduling process.
	Gas Asset Mapping Duration - Distribution	23	23	45	<45	45		
	Gas Asset Mapping Duration - Transmission	106	106	149	<150	143	YTD jobs are within the goal. GT Mapping is working still working through 2016 backlog but has a plan in place to remain current on the YTD data and be within goal at the end of the year.	
	Gas Asset Mapping Duration - Facilities and Other	207	207	180	<165	208	Tracking of stations is still not stable due to incomplete data.	Weekly meetings to refine data and monitor movement of jobs through the process will continue in 2017.
	# of Instances of OQ related findings	No Data Submitted				Under Development		
	Compressor Reliability %	96.24%	96.24%	96.31%	96.33%	0.95635	Topock station had multiple engine turbocharger failures, Los Medanos had spart part issues.	Aging and obsolete equipment. Need to invest more on maintenance & overhauls.
	GT Revenue	\$93.66	\$93.66	\$1,075.19	\$1,074.45	643.626	Total revenue forecast for 2017 is \$0.7M above the year-end budget. The variance is due primarily to higher EG throughput flows in January 2017 than the budget forecast.	
	GT Average WCD Churn Rate	-	\$0.50	\$2.50	\$2.50	2.4		
	GD Average WCD Churn Rate	-	0.47	2.50	2.50	1.9	Improvements to the 10 day request for approval cycle time we believe is due continual raining weather providing additional time for clearance writers to complete clearance writing tasks for future scheduled work	
	Instrumentation Calibration Violations	TBD					New metric in January 2017 - Under Development	

Gas Operations - 2017 Line of Sight		Current Period	YTD Performance	EOY Forecast	EOY Target	Previous Month YTD	Variance Explanation / Operational Summary	Recovery Plan / Actions to Maintain
Compliance	Compliance Mitigation - BPR						No reporting this month. Quarterly Metric - See BPR for details	
	Records Quality - QC Error Rate	TBD						
	Compliance Date Adherence - RCC Reporting	TBD						
	Compliance Date Adherence - Inoperable Valves	0	0	0	0	0	0 day missed	
	Compliance Date Adherence - Digs	0	0	0	0	8	0 day missed	
	NOVs / Instances		78		Tracking Only	No Data submitted	1) 74 Internal Review Instances in two SED audit inspection reports: (1) 2016 Diablo Division Audit: - Reg Station Maintenance, 10; - Valves, 38; (2) 2016 San Jose Division Audit: - Corrosion Control, 10; - Instrument Calibration, 10; - Leak Repair, 1; - Reg Station Maintenance, 4; - Valves, 1; 2) Total # of External Findings (per external report received): 4 violation instances identified by the SED in the 2016 Diablo Division Audit Inspection Report.	
	Data Quality Management – Records QA	4.8	4.8	3	1	4	Change in reporting and reviewing schedule. We now have a 90 day wait between work completion and our review. We also "count" findings found by compliance desk that have not been corrected.	With change in process, we do not see a possibility to recover to meet target set based upon previous process.
Affordable	Gas Ops Base Expense	\$36.28	\$36.28	\$784.60	\$784.60	623.55	Timing of bundling of Strength Test work and lower management/support costs as a result of S-1 improvement.	
	Gas Ops Base Capital	\$64.76	\$64.76	\$1,581.20	\$1,581.20	1410.83	Favorable due to reduced mileage plan in January for Const Dist Facilities due to adverse weather/emergency response.	
	Balancing Account Expense Spending (\$M)	\$10.21	\$10.21	\$198.76	\$146.41	19.9		
	Balancing Account Capital Spending (\$M)	\$7.66	\$7.66	\$189.86	\$179.86	0		
	Average Time for Main Leak Repair	-	32.2	30	30	32.2		
	Average Time for BG Service Leak Repair	-	14.3	14	14	14.3		
	Average Time for Meter Set Leak Repair	43.38	43.38	46.7	46.7	45.26		
	Average Time for AG Service Leak Repair	-	2.2			1.9	No Target - Tracking only	
	% of Gas contract spend managed by Contract Mgmt.	No Data Submitted				NO DATA		
	Savings for contracts under management by Contract Mgmt.	No Data Submitted				NO DATA		
Customer	Open Commitments				TBD		New metric in January 2017 - Under Development	
	OT%				TBD		New metric in January 2017 - Under Development	
	SGO Rollout Plan Execution						Red and Amber RAG Status are primarily driven by schedule or resource constraints. GPOM – AMBBS roll out impacted SGO efforts due to data integrity issues; in addition, several initiatives in flights L&M/Standby – established team later than plan; design took longer due to design requirements needing some new functionality with IRT (fields and reporting); scope included a number of process improvements	Continued with Variance Explanations: Leak Survey – finalizing documentation w/appropriate approval took add'l time G4E – took more time coordinating between Gas & Electric Ops Field Services & Dispatch – established team later than plan ; scope included a number of process improvements Patrols – data migration and security requirements took longer than plan
	Customer Commitments Met	83.60%	83.60%	94.00%	94.00%	0.959	Bad weather is the major reason.	
	Customer Satisfaction Score				TBD		New Metric - No data available from HR	
People	JD Power Gas Business	TBD				2 Q / 743	Will adjust this due to the JD index change	
	JD Power Gas Residential	TBD				4 Q / 688	Will adjust this due to the JD index change	
	Bourke Survey Results	9.14	9.14	9.14	9.1 or >	9.2	The final score will come in December but the team really make the effort to measure the process each month in order to achieve their final goals.	
	Mandatory Training - % Compliance						No Data available	
People	Training Timeliness: % Overdue	-	-	-	-	0	New Metric - No data available from HR	
	Know, Feel, Do Survey Results (Quarterly Results)	TBD				4.13		
	Training Timeliness: Avg. Days Overdue	-	-	-	-		New Metric - No data available from HR	
	Supplier Diversity (%)					0.43	Supply Chain Responsibility will not be able to supply data for January and February 2017 until late March 2017. We are finalizing the results of 2016 and preparing to for the CPUC review.	

EXHIBIT 24

QPIC DASHBOARD - DATA FROM AUGUST 2015

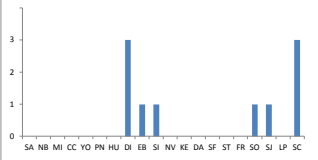

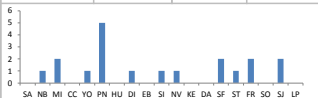

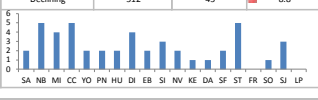

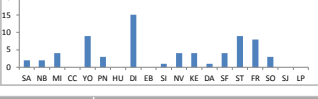



Quality Management - BPR	Findings / Unit of Measure (Sampled)	Officer	Process Owner (Director)	Target	2014 Rate	Last Month Rate	Units	Findings	Rate	Trend From Prior	Units	Findings	Rate	Year-To-Date Findings	Rate	Rolling 12 Months Units	Findings	Rate	Data Comments
Quality Index				1.0	N/A	1.6	4 447	32	1.2	Declining	25 232	308	0.80			28 660	392		
Quality Management - BPR	Findings / Unit of Measure (Sampled)	Officer	Process Owner (Director)	Target	2014 Rate	Last Month Rate	Units	Findings	Rate	Trend From Prior	Units	Findings	Rate	Year-To-Date Findings	Rate	Rolling 12 Months Units	Findings	Rate	Data Comments
Leak Survey - 20%	Grade 1s left behind per 10 000 services	Higgins		9.0	12.1	6.4	3 068	3	9.8	Declining	11 266	10	8.88			11 341	12	10.6	0.09% - Rate per 100 YTD
Variance Explanation / Operational Summary	YTD 10 Grade 1 leaks were missed during production survey. All 0 of the findings were from small leak indications within 5 feet from a building or a structure.	Recovery Plan	1) All Grade 1 findings result in a supervisor / surveyor/QM root cause investigation in the field 2) QM provides a remediation strategy which is shared with the surveyor who failed their assessment 3) This is a paradigm shift for the surveyors and to that end Leak Management Quality Management and Learning Academy partnered to develop a tailboard to reflect leak survey pause points within 5 feet of a structure and or building; to further aid in finding 1 leaks and minimizing risk leveraging lessons learned with illustration of best practices from QM. Leak Survey held a stand down to review the tailboard 7/24/15 4) Learning Academy has incorporated the details of the tailboard into the leak survey curriculum. 5) In August a follow up was held to the stand down with Leak Survey SME's Academy and QM personnel to include hands on training. 6) In September we are following up on lessons learned and questions from the session to refine our processes.					Findings Detail						12 Month Roll ng Trend					
Quality Management - BPR	Findings / Unit of Measure (Sampled)	Officer	Process Owner (Director)	Target	0 4 Rate	Last Month Rate	Units	Findings	Rate	Trend From Prior	Units	Findings	Rate	Year-To-Date Findings	Rate	Rolling 12 Months Units	Findings	Rate	Data Comments
Transmission Construction - 23%	Coating Defects per 00 sampled	Johnson	Kenny /bigas	0.8	0.9	0.0	1 140	7	0.0	Declining	11 791	124	1.0			TBD	TBD	TBD	Rolling 12 mo TBD
Variance Explanation / Operational Summary	There were 7 documentation findings in August for the Transmission program resulting in a BPR score of .6 for the month and a 1.0 YTD. (Amber) All the issues were corrected and communicated at the ESC meeting. The overall metric is still improving and is expected to turn green before year end	Recovery Plan	Gas TBD Construction held a Quality Stand down on 9/18/2015 with the inspection staff that will also reinforce the message requiring quality documentation and adherence to procedures.					Findings Detail	TBD					12 Month Roll ng Trend					
Quality Management - BPR	Findings / Unit of Measure (Sampled)	Officer	Process Owner (Director)	Target	2014 Rate	Last Month Rate	Units	Findings	Rate	Trend From Prior	Units	Findings	Rate	Year-To-Date Findings	Rate	Rolling 12 Months Units	Findings	Rate	Data Comments
Locate and Mark - 12%	Mismarks and No Marks per 100 tickets	Higgins	Dickson	2.2	2.5	2.4	68	1	1.5	Improving	714	19	2.7			1 087	29	2.7	
Variance Explanation / Operational Summary	YTD we have 19 findings related to the 714 USA Ticket #'s that were assessed. 8 mismarks and 11 no marks. Locate and Mark has been challenged to maintain a competent highly trained workforce due to a high level of attrition. Competency issues are also compounded by the 19% volume increase YTD which has resulted in high levels of OT and 7 day work weeks which is not sustainable.	Recovery Plan	Jesus Soto has invoked a Locate and Mark SAR (Special Attention Review) to identify both short and longer term strategies to address issues stemming from outdated technology and resource churn. 50 Additional resources are in the hiring process. It will take several weeks to get them on-board and 1-2 months to train them up to competency. We received approval on June 17 to engage (30) contract resources to supplement our workforce temporarily. These contractors will provide Operator Qual field (OQ d) & trained individuals - quicker than we can train up our internal resources.					Findings Detail						12 Month Roll ng Trend					
Quality Management - BPR	Findings / Unit of Measure (Sampled)	Officer	Process Owner (Director)	Target	2014 Rate	Last Month Rate	Units	Findings	Rate	Trend From Prior	Units	Findings	Rate	Year-To-Date Findings	Rate	Rolling 12 Months Units	Findings	Rate	Data Comments
Repaired Leaks -18%	Gas Readings Found per 00 locations	Higgins		5.8	6.5	4.6	47	4	8.5	Declining	512	45	8.8			888	71	8.0	
Variance Explanation / Operational Summary	Repaired leaks continues to be below target. Trends are being examined for possible additional process and or training actions to improve performance.	Recovery Plan	Reconfirm a high level of understanding of the post repair process. Consider post Leak Repair re-check option is being utilized appropriately.					Findings Detail						12 Month Roll ng Trend					
Quality Management - BPR	Findings / Unit of Measure (Sampled)	Officer	Process Owner (Director)	Target	0 4 Rate	Last Month Rate	Units	Findings	Rate	Trend From Prior	Units	Findings	Rate	Year-To-Date Findings	Rate	Rolling 12 Months Units	Findings	Rate	Data Comments
Distribution Construction - 10%	Major Findings per 100 assessments	Higgins	Harden	11.7	13.0	21.7	65	14	21.5	Improving	436	70	16.3			574	81	14.1	
Variance Explanation / Operational Summary	During August there were three findings where the employee wasn't qualified to perform plastic connections and three times the air monitor wasn't used when required. These are Major Findings impacting the metric.	Recovery Plan	The Q team gave specific recommendations to the field personnel and supervisors to correct the issues and communicate more broadly across the organization for improvement. Gas TBD Construction held a Quality Stand down on 9/18/2015 with the inspection staff that will also reinforce the message requiring quality documentation and adherence to procedures.					Findings Detail						12 Month Roll ng Trend					
Quality Management - BPR	Findings / Unit of Measure (Sampled)	Officer	Process Owner (Director)	Target	2014 Rate	Last Month Rate	Units	Findings	Rate	Trend From Prior	Units	Findings	Rate	Year-To-Date Findings	Rate	Rolling 12 Months Units	Findings	Rate	Data Comments
I&R (Valves & Regulators) - 10%	Major Findings per 100 assessments	Higgins		55.7	61.9	6.3	14	1	12.5	Declining	162	24	25.5			217	37	17.1	
Variance Explanation / Operational Summary	I&R QM Specialist provide feedback/mentoring after the assessment is completed. They also conduct Opening and Closeout meetings to cover any new work procedures or answer any questions. The I&R Director is implementing a training plan to help field personnel review documentation. Also they are currently in the process of rewriting the apprenticeship program.	Recovery Plan						Findings Detail	TBD					12 Month Roll ng Trend					
Quality Management - BPR	Findings / Unit of Measure (Sampled)	Officer	Process Owner (Director)	Target	0 4 Rate	Last Month Rate	Units	Findings	Rate	Trend From Prior	Units	Findings	Rate	Year-To-Date Findings	Rate	Rolling 12 Months Units	Findings	Rate	Data Comments
Field Services - GSR - 7%	Hazards and Leak Findings per 100 EE's Assessed	Higgins	Yamaguchi	6.2	6.9	0.0	45	2	4.4	Declining	351	16	4.6			494	28	5.7	
Variance Explanation / Operational Summary	Working with Academy on development of Virtual Learning (VL) courses for clarification of new procedures. Using VL to get the issues out in front of the GSRs through continuous learning. Long term plan: Train Lead GSRs to perform local assessments. Training curriculum under development. Field Service will add a System Wide Quality Lead to work with QM on driving improvement.	Recovery Plan						Findings Detail						12 Month Roll ng Trend					

EXHIBIT 25

PG&E Gas Operations

Keys to Success

April 2013



“There is no more powerful engine driving an organization toward excellence and long-range success than an attractive worthwhile, achievable vision for the future, widely shared.”

Burt Nanus



Damage Prevention Report - April 2013 for March 2013 Results

Goal: Reduce damage to PG&E's underground facilities and associated costs through public awareness, effective locating, marking, and monitoring of facilities, and timely follow up and billing of at-fault excavators.

Results		Dig-ins per 1000 tickets (STIP Metric): 3.74 March Results, 3.84 YTD Results
Initiative Status		Initiatives are assigned to new core team leads for prioritization and completion

Operating Results: YTD 2013

PERFORMANCE

Results:

Month		
Actual	Target	Score
3.74	3.90	1.36

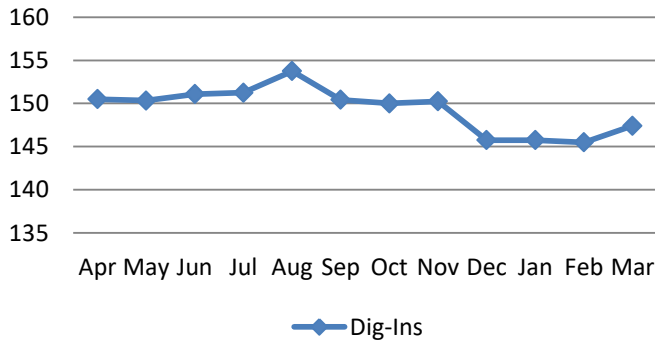
YTD		
Actual	Target	Score
3.84	3.90	1.14

EOY		
Forecast	Target	Score
3.90	3.90	1.00

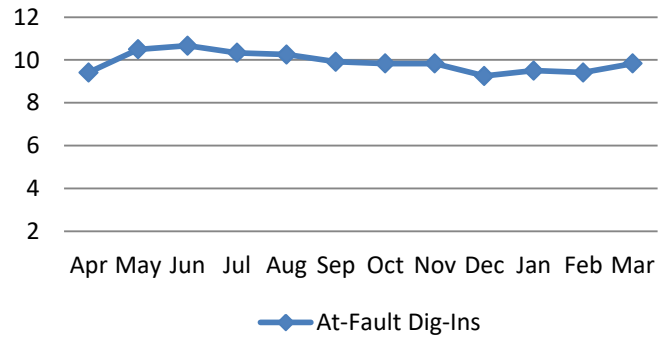
YTD dig-in rate of 3.84 (389 dig-ins) is slightly under YTD goal of 3.90, and similar to last years' rate (369 dig-ins). The March rate is 4% better than goal for 2013. However, on a 12 month rolling rate basis, the damage rate of 4.35 is only a 2% improvement over the previous year. We see "slippage" in the YTD results, as there is a data entry lag. We are reviewing the damage data entry process with the help of DIMP and Investment Planning, in order to improve it.

USA ticket volume for March has increased by 13% over the previous March, and YTD ticket volume has increased by 5% over the previous year's YTD ticket volume. We are leveraging our Public Awareness Program to drive increased ticket volume.

**Total Dig-Ins
12-Month Rolling Avg**



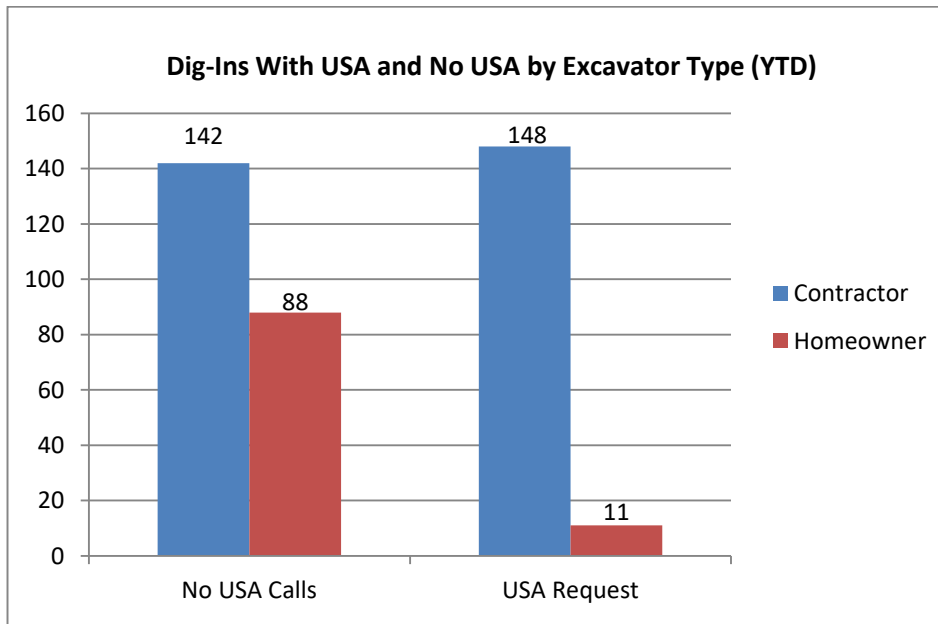
**"At-fault" Dig-In
12-Month Rolling Avg**



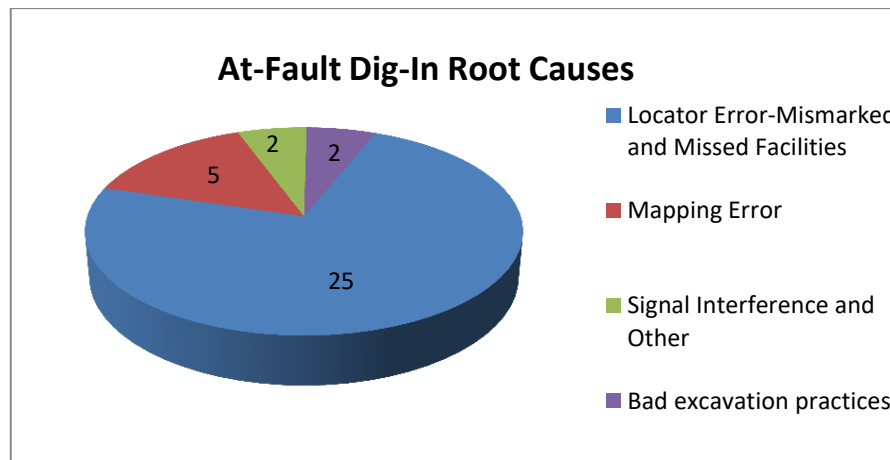
For March, there was a slight increase and an upward trend. We also see an upward trend in our "at-fault" dig-ins. This is an indication that our locator performance is not improving. We will be reviewing this data with our QA team to identify any trends relative to specific locators, or specific types of work.



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Contractors accounted for 75% of total damages (290 out of 389), of which 37% were due to “no call” damages. Contractor “no calls” remain our biggest opportunity, followed closely by contractors digging in the “tolerance zone”. We continue to look for “repeat offenders” regarding any new incidents. We continue our focus on contractors in general in 2013.

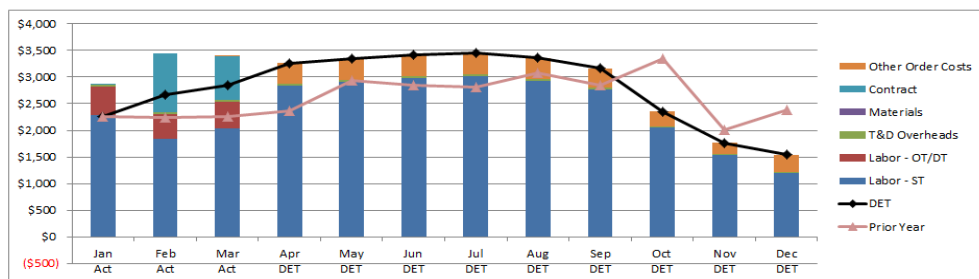


YTD “At-faults” totaled 34 (9% of our total damages), of which 26 were locator errors, 1 signal interference, 5 mapping errors, and 2 bad excavation practices. There are 9 incomplete data submitted that needs verification to show if it is a third party fault. There is a potential to adjust the total at-faults based on the conclusion of this verification. Improved locator training (in development) and tooling (July deployment) are opportunities to improve performance in this area.



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Financial Results



	Mar					YTD				
	Actual	DET	Variance to DET	Prior Year	Variance to PY	Actual	DET	Variance to DET	Prior Year	Variance to PY
\$000										
Labor - ST	\$2,044	\$2,488	\$444	\$1,832	(\$212)	\$6,172	\$7,040	\$867	\$5,416	(\$756)
Labor - OT/DT	\$492	\$0	(\$492)	\$393	(\$99)	\$1,487	\$0	(\$1,487)	\$1,248	(\$239)
T&D Overheads	\$40	\$33	(\$7)	\$29	(\$11)	\$114	\$94	(\$20)	\$87	(\$26)
Materials	\$0	\$0	\$0	\$0	\$0	\$1	\$0	(\$1)	\$3	\$2
Contract	\$813	\$0	(\$813)	\$0	(\$813)	\$1,911	\$0	(\$1,911)	\$0	(\$1,911)
Other Order Costs	\$0	\$332	\$332	\$0	\$0	(\$0)	\$642	\$642	\$0	\$0
Total Costs	\$3,389	\$2,854	(\$535)	\$2,255	(\$1,134)	\$9,685	\$7,776	(\$1,909)	\$6,754	(\$2,931)
Units	32,196	30,853	(1,343)	27,810	(4,386)	87,599	84,075	(3,524)	79,713	(7,886)
Unit Cost	\$105	\$92	(\$13)	\$81	(\$24)	\$111	\$92	(\$18)	\$85	(\$26)

March results were \$1.1M above plan, and nearly \$1.9M above plan YTD. This is driven primarily by contractor invoicing, and to a lesser degree, increased units and unbudgeted overtime. Twenty five contracted FTE's were added in order to address staffing shortfalls in the Locate and Mark workforce, due to employee "churn". An analysis of this overtime has been performed, down to the individual employee level. We are currently reviewing the work volume, staffing level and schedules to identify opportunities to reduce spend without impacting operational results. We are also reviewing the quality and productivity of our contractor, now that they have been actively locating for 90 days.

Straight Time and Overtime Spend by Region

DFA Mark & Locate Distribution

	Mar			YTD		
	Actual	DET	Variance	Actual	DET	Variance
\$000						
Bay Area (Steve Redding)						
Labor - ST	\$492	\$779	\$287	\$1,546	\$2,182	\$635
Labor - OT/DT	\$213	\$0	(\$213)	\$721	\$0	(\$721)
Central Coast (Jodie Kubota)						
Labor - ST	\$582	\$550	(\$32)	\$1,758	\$1,592	(\$166)
Labor - OT/DT	\$131	\$0	(\$131)	\$347	\$0	(\$347)
Central Valley (Ross Leverett)						
Labor - ST	\$437	\$460	\$23	\$1,296	\$1,305	\$9
Labor - OT/DT	\$99	\$0	(\$99)	\$281	\$0	(\$281)
Northern (Lorene Harden)						
Labor - ST	\$533	\$699	\$166	\$1,571	\$1,960	\$389
Labor - OT/DT	\$49	\$0	(\$49)	\$138	\$0	(\$138)
Other						
Labor - ST	\$0	\$0	\$0	\$0	\$0	\$0
Labor - OT/DT	\$0	\$0	\$0	\$0	\$0	\$0
Total						
Labor - ST	\$2,044	\$2,488	\$444	\$6,172	\$7,040	\$867
Labor - OT/DT	\$492	\$0	(\$492)	\$1,487	\$0	(\$1,487)

Analysis indicates a need to reallocate resources to address overtime concerns, and to assess productivity of existing employees in areas of highest overtime. Note that areas with the highest overtime also have a significant under-run in



Damage Prevention Report - April 2013 for March 2013 Results

straight time hours. We are reviewing operator qualification records to determine availability of additional L&M resources.

Employees with Highest Overtime by Region

This data provides insight into areas where staffing is not optimal. As noted above, we will be looking to make staffing level adjustments.

DFA Distribution

	YTD OT/DT	
	Hours	Amount
Bay Area (Steve Redding)		
San Francisco	464	\$77,809
San Francisco	338	\$56,596
San Francisco	299	\$50,139
San Francisco	258	\$43,264
San Francisco	243	\$40,665
Central Coast (Jodie Kubota)		
San Jose	125	\$20,878
DeAnza	113	\$18,754
Mission	108	\$18,111
San Jose	108	\$18,046
Peninsula	88	\$14,757
Central Valley (Ross Leverett)		
Stockton	166	\$27,753
Stockton	144	\$24,190
Fresno	137	\$22,974
Kern	133	\$22,303
Yosemite	130	\$21,800
Northern (Lorene Harden)		
North Valley	124	\$20,794
Sacramento	111	\$18,530
Sierra	67	\$11,193
Sacramento	60	\$10,061
Sacramento	47	\$7,840



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Claims Relative to Dig-Ins

2012 Billed Claims	Total	2013 YTD Billed Claims	Total
\$ Invoiced	\$5,353,342	\$ Invoiced	\$233,147
\$ Collected	\$2,149,238	\$ Collected	\$42,579
% Collected	40%	% Collected	18%
Written Off	\$588,924	Written Off	\$1,659
% Written Off	11%	% Written Off	1%
Pending Collection	\$2,615,180	Pending Collection	\$188,908
\$ Un-Invoiced	\$345,848	\$ Un-Invoiced	\$229,146

This section of the report is new. We will be improving the reporting around collections status going forward. We expect to have more detail in the future. We have set a goal of increasing dollars collected year on year of \$2 Million, so an improved process is critical.

Highlights from the previous month:

Bill Nelson Construction- Law filed a lawsuit against Bill Nelson Construction, citing ten instances of negligent excavation practices. We were successful in collecting on all ten claims. Previously, the contractor had taken a very aggressive stance, and we had been unable to settle past claims with this contractor.

Piloting of "Hit Kit"- We have begun piloting a simple tool to improve the quality of damage photographs. Early indications are that it is an obvious improvement, and we will look to deploy in the coming months.





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Initiative Update

Opportunities Linked to Short-term Initiatives		
Initiative	Description	Status and Timing
Public Awareness Improvement Plan	An integrated Public Awareness work plan has been established and is included at the end of this report. Efforts to coordinate activities across departments are ongoing. A summary of that plan can be found later in this section. Activities around public awareness are now underway, and take a variety of forms.	Plan Complete Program underway
Development of a "Repeat Offender" Process	Development and deployment of a process to address repeat offenders is underway, with rollout planned for the end of April. Meetings with repeat offenders continue on an "as needed" basis. We have met with 11 of the 12 "repeat offenders".	May 1
Locate and Mark Staffing Gap – Interim Solution	Agreement has been reached with IBEW 1245 over the temporary use of contractors to supplement the workforce. This LoA has been extended through May 1. Now that we have 90 days experience with utilization of contractors, we are assessing their performance from the standpoint of quality, productivity and cost.	Complete and underway
Locate and Mark Process – Ticket Due Date	We have eliminated the option of adjusting ticket "due date" without agreement by the requestor. This has resulted in lower "on time" ticket completion rates, and will help with identification of areas with resource issues.	Complete
Claims Billing Backlog	The backlog of outstanding 2012 Gas claims that have not yet been billed by RMC due to incomplete documentation has been reduced by 95% and will be eliminated by the end of April. We continue to work with Finance, DIMP and the "Non Energy Collections Unit" on a permanent solution. A summary table is provided elsewhere in this section. A meeting is scheduled for April 25 in order to assess status and opportunities.	March 31
Legal Process Improvement (new initiative)	Law is developing a standardized "claims package" that will be rolled out to all DP supervisors. This package will show what is needed to effectively file suit against an excavator, improving our chance of success. We are piloting a "hit kit" in Oakland, which enhances damage photographs by better illustrating where the damage occurred in relation to the marks.	May 31
Claims Process	Analysis and revision of the "dig-in to bill" process through LSS is underway. This process will be streamlined to reduce cycle time from 65 days average to 30 days. We are receiving support from	April 28



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	Finance and NECU to address.	
Locator Tooling Standardization	We have selected "Vivax" as our primary vendor for locating tools, and will provide a secondary tool for inductive locating situations ("Pipehorn")	Complete
Pre-excavation "sweep" tool Deployment	"Pipehorn" tools have been ordered, and the first delivery has been received. Deliveries will continue through May, with staggered deployment and training. The first four sessions, including the deployment of 200 units, occurred on April 23 and 24.	June 1 Deployment Now Underway
Utilization of "Caution tape"	We have begun using caution tape on direct-buried projects. We have placed an order for additional rolls with the vendor, and are in the midst of deploying to further crews. The requirement for caution tape has been integrated into our construction contracts, and we are working to integrate it into our construction standards.	Mar 31 Deployment Now Underway
Post-construction locating verification	PG&E currently does not verify that a facility can be located after it is constructed. It is considered a best practice. We are working to integrate this into our construction standards. In the meantime we are issuing a bulletin to all crews who may be constructing or reconstructing with plastic pipe of this requirement.	May 1

Opportunities Linked to Long-term Initiatives

Initiative	Description	Status and Timing
Reduction of Employee "Churn" Within Damage Prevention	A revised staffing strategy, based on the 2013 work plan, will be used to stabilize the staffing within DP and Leak Survey. This will be closely aligned to a joint effort with IBEW 1245 focused on modifying the existing progressions within Gas Operations. This is an ongoing process, which will begin in Q4 2012.	Q4
Benchmarking of Damage Prevention Program	Existing Damage Prevention procedures will be compared against Common Ground Alliance (CGA) "Best Practices" to eliminate gaps in our program. Recommendations from that comparison will be deployed by Q2 2013. A response to the internal audit of the Damage Prevention process has been submitted. The audit response contains plans around timeliness of completed tickets, Pre-construction field meetings, line markers, patrols, "repeat offenders", external pipeline loading and more. (Note: Due to the physical size of the analysis, it will be provided in a format outside of KTS)	May 1



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Review Damage Prevention
Training Program Against
Industry Best-in-class

A review of our existing training, including a comparison with
CGA recommendations as well as comparison with National
Utility Contractor Locators' Association recommendations.

May 31



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Public Awareness Plan

2013 PG&E Gas Safety Communication & Public Awareness Compliance Outreach

This chart focuses on activities for external stakeholder and is complimented by a separate internal/employee communication plan that utilizes e-mail, intranet, training and face-to-face meetings to engage employees as safety ambassadors at work and in PG&E communities.

	GOV. RELATIONS	MEDIA & COMMUNITY RELATIONS	ADVERTISING & WEB SERVICES	CUSTOMER CARE	INTEGRITY MGMT/DAMAGE PREVENTION	EMERGENCY PREP.	M&C OPS & LAND
811 AWARENESS & DIG-IN DAMAGE PREVENTION	<ul style="list-style-type: none"> Face-to-Face Local Gov. Outreach State Bill Dev. 	<ul style="list-style-type: none"> News Releases Reporter Education Safety Outreach Program (Safety Board) In-language Safety Cards Ambassador Mobilization Social Media 	<ul style="list-style-type: none"> PSAs: Radio, Print, Web Videos Web content 	<ul style="list-style-type: none"> Bill inserts Envelop message Customer e-Campaign CARE Outreach 	<ul style="list-style-type: none"> Direct Mail Events & Sponsorship Training School e-Campaign Pipeline Markers 	<ul style="list-style-type: none"> Direct Mail Face-to-Face Events & Sponsorship Training 	<ul style="list-style-type: none"> Face-to-Face Door hangers
PIPELINE LOCATION AWARENESS (Includes location awareness for storage, compressor facilities)	<ul style="list-style-type: none"> Face-to-Face Local Gov. Outreach 		<ul style="list-style-type: none"> Online Map Web content 	<ul style="list-style-type: none"> Bill inserts Direct Mail 	<ul style="list-style-type: none"> Direct Mail Pipeline Markers School e-Campaign 	<ul style="list-style-type: none"> ER Portal Maps 	<ul style="list-style-type: none"> Face-to-Face
GAS LEAK RECOGNITION & RESPONSE EMERGENCY RESPONSE AGENCY PREPAREDNESS		<ul style="list-style-type: none"> Reporter Education Ambassador Mobilization School classroom materials Safety Outreach Program (Safety Board) In-language Safety Cards 	<ul style="list-style-type: none"> Web content Videos 	<ul style="list-style-type: none"> Bill inserts CARE Outreach 	<ul style="list-style-type: none"> Direct Mail School e-Campaign School classroom materials Training Events & Sponsorship 	<ul style="list-style-type: none"> Direct Mail Face-to-Face Scratch 'n sniff cards Training Drills ER Portal Events & Sponsorship 	<ul style="list-style-type: none"> Face-to-Face
AWARENESS OF HAZARDS & IM ACTIVITIES	<ul style="list-style-type: none"> Face-to-Face Local Gov. Outreach 	<ul style="list-style-type: none"> Reporter Education In-language Safety Cards Safety Outreach Program (Safety Board) 	<ul style="list-style-type: none"> Videos Web content 	<ul style="list-style-type: none"> Bill insert Direct Mail PSIP Robo Calls Open House Meetings CARE Outreach Signage 	<ul style="list-style-type: none"> Direct Mail School e-Campaign 	<ul style="list-style-type: none"> Direct Mail ER Portal Training 	<ul style="list-style-type: none"> Face-to-Face Direct Mail
ROW PROTECTION/ENCROACHMENT	<ul style="list-style-type: none"> Face-to-Face Local Gov. Outreach 	<ul style="list-style-type: none"> Reporter Education 	<ul style="list-style-type: none"> Web content 	<ul style="list-style-type: none"> Face-to-Face Meetings Open House Meetings 	<ul style="list-style-type: none"> Direct Mail 	<ul style="list-style-type: none"> Training 	<ul style="list-style-type: none"> Face-to-Face Direct Mail



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Damage Prevention Metrics

	Diablo	East Bay	North Bay	San Francisco	Total	Central Coast	De Anza	Los Padres	Mission	Peninsula	San Jose	Total	Fresno	Kern	Stockton	Yosemite	Total	North Coast	North Valley	Sacramento	Sierra	Total	GT	Total Gas Ops*	YTD System**
Ticket Counts (Tickets Received)																									
YTD Mar 2013	3,967	4,694	4,293	2,958	15912	3,632	4,115	3,719	4,131	4,412	5,011	25020	7,245	10,200	5,050	6,982	29477	5,111	3,649	13,088	5,013	26,861	2,675	99,945	101,389
YTD Mar 2012	5,865	5,724	3,139	3,090	17818	4,069	3,840	3,245	3,612	4,069	4,833	23668	5,132	9,992	4,658	6,394	26176	4,003	3,428	12,617	4,432	24480	2457	94,599	96,227
% Change	-32%	-18%	37%	-4%	-11%	-11%	7%	15%	14%	8%	4%	5.7%	41%	2%	8%	9%	13%	28%	6%	4%	13%	10%	9%	6%	5%
Month Mar 2013	1,349	1,643	1,487	1,053	5,532	1,328	1,561	1,279	1,563	1,665	2,050	9,446	2,731	3,653	1,839	2,574	10,797	1,837	1,306	4,751	1,920	9,814	941	36,530	37,186
Month Mar 2012	1,870	2,106	992	965	5,933	1,156	1,319	1,157	1,180	1,448	1,861	8,121	1,791	3,666	1,483	2,166	9,106	1,325	1,140	4,303	1,554	8,322	911	32,393	32,993
% Change	-28%	-22%	50%	9%	-7%	15%	18%	11%	32%	15%	10%	16%	52%	0%	24%	19%	19%	39%	15%	10%	24%	18%	3%	13%	13%
Late Tickets																									
YTD Mar 2013	8	64	72	81	225	40	43	516	59	71	740	1469	72	131	887	339	1429	160	29	21	61	271	107	3,501	3525
YTD Mar 2012	39	39	6	22	106	2	51	91	16	20	52	232	21	196	48	49	314	40	53	42	50	185	160	997	1132
% Change	-79%	64%	1100%	268%	112%	1900%	-16%	467%	269%	255%	1323%	533%	243%	-33%	1748%	592%	355%	300%	-45%	-50%	22%	46%	-33%	251%	211%
Month Mar 2013	1	31	3	29	64	6	7	131	25	20	382	571	32	57	389	122	600	69	12	4	29	114	15	1,364	1382
Month Mar 2012	20	23	3	3	49	0	0	33	4	4	16	57	5	125	16	23	169	18	33	21	15	87	47	409	478
% Change	-95%	35%	0%	867%	31%	0%	0%	297%	525%	400%	2288%	902%	540%	-54%	2331%	430%	255%	283%	-64%	-81%	93%	31%	-68%	233%	189%
Dig-Ins																									
YTD Mar 2013 - Dig-ins/1000 Tags	5.29	5.97	4.19	7.10	5.53	6.88	3.65	4.03	4.60	6.80	2.79	4.72	0.69	2.45	8.12	6.45	3.94	3.33	2.74	1.83	3.19	2.49	0.00	3.89	3.84
YTD Mar 2012 - Dig-ins/1000 Tags	3.75	6.81	5.42	8.41	5.84	4.92	4.43	1.54	4.71	4.42	3.72	4.01	5.26	1.50	4.72	5.47	3.78	4.00	1.75	3.25	1.81	2.90	0.00	3.90	3.83
% Change	41%	-12%	-23%	-16%	-5%	40%	-18%	162%	-2%	54%	-25%	17%	-87%	63%	72%	18%	4%	-17%	57%	-44%	77%	-14%	0%	0%	0.1%
Dig In's																									
YTD Mar 2013	21	28	18	21	88	25	15	15	19	30	14	118	5	25	41	45	116	17	10	24	16	67	0	389	389
YTD Mar 2012	22	39	17	26	104	20	17	5	17	18	18	95	27	15	22	35	99	16	6	41	8	71	0	369	369
% Change	-5%	-28%	6%	-19%	-15%	25%	-12%	200%	12%	67%	-22%	24%	-81%	67%	86%	29%	17%	6%	67%	-41%	100%	-6%	0%	5%	5%
Month Mar 2013	7	9	6	8	30	7	5	3	7	17	6	45	1	10	15	14	40	7	6	8	3	24	0	139	139
Month Mar 2012	9	11	6	10	36	8	7	2	5	4	4	30	8	6	7	9	30	5	2	11	2	20	0	116	116
% Change	-22%	-18%	0%	-20%	-17%	-13%	-29%	50%	40%	325%	50%	50%	-88%	67%	114%	56%	33%	40%	200%	-27%	50%	20%	0%	20%	20%
At-Fault Dig-Ins																									
YTD Mar 2013 - At-Fault Dig-ins/1000 Tags	0.00	0.64	1.63	0.68	0.75	0.00	0.49	0.00	0.00	0.45	0.40	0.24	0.28	0.29	0.59	0.72	0.44	0.00	0.00	0.15	0.20	0.11	0.00	0.34	0.34
YTD Mar 2012 - At-Fault Dig-ins/1000 Tags	0.00	0.35	0.00	1.29	0.34	0.25	0.78	0.00	0.55	0.00	0.41	0.34	0.39	0.10	0.43	0.63	0.34	0.25	0.29	0.08	0.23	0.48	0.00	0.29	0.28
YTD Mar 2013	0	3	7	2	12	0	2	0	0	2	2	6	2	3	3	5	13	0	0	2	1	3	0	34	34
YTD Mar 2012	0	2	0	4	6	1	3	0	2	0	2	8	2	1	2	4	9	1	1	1	1	4	0	27	27
% Change	0%	50%	0%	-50%	100%	-100%	-33%	0%	-100%	0%	0%	-25%	0%	200%	50%	25%	44%	-100%	-100%	100%	0%	-25%	0%	26%	26%
Month Mar 2013	0	0	0	2	2	0	1	0	0	0	2	3	1	2	1	2	6	0	0	1	1	2	0	13	13
Month Mar 2012	0	1	0	2	3	0	1	0	0	0	1	2	0	0	0	1	1	1	0	0	1	2	0	8	8
% Change	0%	-100%	0%	0%	-33%	0%	0%	0%	0%	0%	100%	50%	0%	0%	0%	100%	500%	-100%	0%	0%	0%	0%	0%	63%	63%
At Faults that were Mismarked																									
YTD Mar 2013	1	3	4	2	10	0	1	0	0	2	2	5	2	1	1	4	8	0	1	1	0	2	0	25	25
YTD Mar 2012	0	2	0	4	6	2	3	0	2	0	1	8	3	2	2	4	11	0	0	1	5	6	0	31	31
% Change	0%	50%	0%	-50%	67%	-100%	-67%	0%	-100%	0%	100%	-38%	-33%	-50%	-50%	0%	-27%	0%	0%	0%	-100%	-67%	0%	-19%	-19%
Month Mar 2013	0	0	0	2	2	0	1	0	0	0	2	3	1	1	0	2	4	0	0	1	0	1	0	10	10
Month Mar 2012	0	0	0	2	2	0	1	0	0	0	2	3	1	1	0	1	3	0	0	0	2	2	0	10	9
% Change	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	33%	0%	0%	0%	-100%	-50%	0%	0%	11%

* Regional Totals exclude ET, FB and dig-ins by PGE to 3P

** System Totals include ET and FB

***Target Goal (Number) for At-Fault does not include GC Gas, GC Elec and Div Elec in the Region Count but will be included in the System Count

Source: CCD and ORI reports

EXHIBIT 26

To: Higgins, John[JZH0@pge.com]
Cc: Christopher, Melvin[M6CE@pge.com]; Dickson, Joel[JxDq@pge.com]
From: "Soto Jr., Jesus"
Sent: Wed 3/8/2017 5:22:01 PM
Subject: Fwd: Today's L&M Ops Call Update

John:

I met with Joel today. We would like to move forward with a letter agreement w/ IBEW to stabilize our Locate and Mark organization in East Bay and mission locations:

- San Francisco
- Peninsula
- DeAnza
- San Jose

Let's see if we can structure a letter agreement that puts in place 3 year time periods to address the churn in these locations.

JSoto

Sent from my iPhone

Begin forwarded message:

From: "Dickson, Joel" <JxDq@pge.com>
Date: February 13, 2017 at 9:45:13 AM PST
To: "Soto Jr., Jesus" <J81K@pge.com>
Cc: "Christopher, Melvin" <M6CE@pge.com>
Subject: Today's L&M Ops Call Update

Jesus,

I want to ensure you understand the context of my update this morning. When I say "catching up" the rain made many of our tickets impossible to locate in some areas. SB 661 now requires a field meet and agreement for any renegotiated ticket with the contractor which is what we are doing as well as also locating/communicating deactivated facilities where we have that data. The amount of extra time, documentation requirement and inclement weather of late are the drivers for us catching up in this dry period we currently have now. I would also add our churn rate continues to be a big problem in areas like Peninsula, Sacramento, East Bay and San Jose. We are currently down approximately 15 bodies between these divisions. Most took bids out of L&M to M&C, Leak Survey and apprentice bids in Corrosion. When we lose trained support like that continually it does provide us with some resource management challenges that we normally work through. This phenomenon isn't new simply what we must address daily to ensure full compliance.

I will say last week we did get our EEI (successful RFP bidder for locate support) contract fully executed and we are now going through the OQ/training process with them to ensure we are using those resources wisely. We have a different hiring strategy for our locators, focusing on hiring as local as we can given most people come in and as soon as they can look to leave to get closer to home. But overall we are where we expected to be. We had 2 tickets go late ytd and those 2 occurred due to an oversight of a new supervisor whom we are working to support. Its important you feel comfortable with where we are and where we are going. One item I put ifo John Higgins as our point of contact for IBEW is can we get a LOA that requires a 2 to 3 year commitment with L&M should someone bid into classification? If there is one item that would help steady us the most it would be that. Call with questions.
Thanks

Joel Dickson

Director, Gas Ops T&D Compliance Programs
6121 Bollinger Canyon Road, #4440D
Bishop Ranch, Building Z
San Ramon, CA 94583

925-328-5255 Office

415-559-9506 Cell

JxDq@pge.com

EXHIBIT 27

To: Dickson, Joel[porate/cn=Recipients/cn=JxDq]
From: Higgins, John
Sent: Thur 6/4/2015 5:32:48 PM
Subject: RE: A Note of Thanks

Nice note, Joel!

From: Yang, Jenny **On Behalf Of** Dickson, Joel

Sent: Thursday, June 04, 2015 5:31 PM

To:

[REDACTED] Gas Ops GTDO Locate
and Mark Supervisors; Gas Ops GTDO M&C North All Employees; Gas Ops GTDO M&C South All Employees; Gas Ops Gas T&D
Operations Leadership Team; Gas Ops Gas T&D Operations ELT

Cc: Gas LOP Committee TD; Mack, Katherin L

Subject: A Note of Thanks

Gas Operations T&D Employees -

Gas Compliance Programs would like to extend our "Thanks" to the 20+ employees throughout M&C that have responded (and continue to support) our critical Locate & Mark function in Gas Operations. As a direct result of your partnership/engagement we have been successful in reducing the backlog of Late tickets to virtually zero. This after seeing the late ticket count rise above 3000 in the month of March 2015. This would not have been possible without the immediate support from this team.

We are taking affirmative steps to allow us to sustain this progress - including but not limited to adding additional staffing to the Locate & Mark group. The staffing, training, and preparation of these new employees will take several months. While we enter into our peak months of USA requests, we will continue to need the temporary assistance of the 20+ employees to ensure we stay in compliance with the 48 hour window we are given to locate ticket requests through USA North. Once we are through the peak USA months, and we are sure that we can sustain the performance, we will begin to transition the 20+ employees back to their base positions. In the short term, L&M is hiring additional Compliance Representatives, bringing on Utility Workers, and sending more UW employees to be trained and qualified. Our intent isn't to keep employees from working in the jobs they bidded into. My focus is staffing up the L&M organization to the right level and getting each of you back to your base assignments as soon as possible.

To all the supervisors who made it happen, the M&C employees who are filling in the gaps left by their crewmates, and the employees in Locate and Mark that have willingly helped orient them - Thank you! I wanted to also take this moment to thank all of Gas T&D Operations for once again exemplifying the term "team work" - working together to address critical business needs that are pertinent to keeping the public and our employees safe.

Best,

Joel Dickson

Director, Gas Compliance Programs
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EXHIBIT 28

PG&E Gas Operations

Keys to Success







































March 2013





“Tell me and I forget,
teach me and I may remember,
involve me and I learn.”

Benjamin Franklin



Gas Operations – February 2013 Business Plan Review

	Dec-12 January			Dec-12 January			Dec-12 January						
Goal Metrics	Month			YTD			EOY			Quartile			
	Results	Target		Results	Target		Forecast	Target		1st	2nd	3rd	4th
Gas & Electric Dig-ins Reduction	  3.25	3.90	 	3.58	3.90	 	3.29	3.90					
Gas Emergency Average Response Performance	  21.00	22.50	 	21.95	22.50	 	22.00	22.00					
Gas Emergency Response Performance (within 60 minutes)	  99.3%	99.0%	 	99.2%	99.0%	 	99.0%	99.0%					
Leak Repair Performance	YTD Metric		 	4,971	5,535	 	1,000	1,000					
Gas Asset Mapping Duration	YTD Metric		 	59.00	59.00	 	90.00	90.00					
Overpressure Events	  3.00	4.00	 	11.00	9.00	 	34.00	32.00					
2013 Centerline Survey Completed (CPUC)	  331.00	375.00	 	1,066.00	956.00	 	6,750.00	6,750.00					

 2013 YTD
  2013 Forecast
  2013 Target
  2012

Gas Operations – February 2013 Business Plan Review

I. Safety	Dec-12 January			Dec-12 January			Dec-12 January		
	Month Results			YTD Results			Full Year		
	Actual	Plan	Variance	Actual	Plan	Variance	Forecast	Plan	Variance
A. Gas Emergency Response Performance									
1. Average Emergency Response ⁽¹⁾	21.00	22.50	(1.50)	21.95	22.50	(0.55)	22.00	22.00	0.00
2. % Response in 60 Minutes	99.3%	99.0%	0.3%	99.2%	99.0%	0.2%	99.0%	99.0%	0.0%
B. Leak Repair Performance									
1. Leak Repair Performance ⁽²⁾	YTD Metric			4,971	5,535	(564)	1,000	1,000	0
2. 2013 Grade 2 Leak Backlog	3,058	3,963	(905)	3,058	3,963	(905)	0	0	(0)
C. Over Pressurization									
1. Overpressure Events	3.00	4.00	(1.00)	11.00	9.00	2.00	34.00	32.00	2.00
D. NTSB Recommendations									
1. Implement NTSB Recommendations ⁽³⁾	On Track	On Track		On Track	On Track		On Track	On Track	
E. Pipeline Safety Enhancement Plan									
1. PSEP: % 2013 Miles Strength Tested	4.0%	1.3%	2.7%	7.1%	4.4%	2.7%	100.0%	100.0%	0.0%
2. PSEP: % 2013 Miles Replaced	3.1%	3.6%	-0.5%	6.1%	6.6%	-0.5%	100.0%	100.0%	0.0%
3. PSEP: % 2013 Valves Modified / Automated	5.4%	4.0%	1.4%	5.4%	4.0%	1.4%	100.0%	100.0%	0.0%
4. PSEP: % 2013 Miles Retrofitted for In Line Inspection	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
F. Right of Way Program									
1. 2013 Centerline Survey Completed (CPUC)	331	375	(44)	1,066	956	110	6,750	6,750	0
2. Survey GIS Upload Completed ⁽¹⁾	0	200	(200)	104	300	(196)	6,750	6,750	0
G. Employee Safety									
1. Lost Work Day Case Rate	0.294	0.205	0.089	0.147	0.169	(0.022)	0.374	0.374	0.000
2. Serious Preventable Motor Vehicle Incident Rate	0.358	0.250	0.108	0.543	0.250	0.293	0.250	0.250	0.000

(1) Part of PSEP and ROW STIP Metric

(2) STIP Metric

(3) Tracking as Initiative. Performance will be tracked vs. action plan and reported as a modified RAG status. "On Track" (green), "Behind" (amber), "Off Track" (red)

Gas Operations – February 2013 Business Plan Review

II. Reliable	Dec-12 January			Dec-12 January			Dec-12 January		
	Month Results			YTD Results			Full Year		
	Actual	Plan	Variance	Actual	Plan	Variance	Forecast	Plan	Variance
A. Make Safe Gas Shut In Time									
1. % Events Involving Mains Shut In <120 Minutes	63.6%	65.0%	-1.4%	46.2%	65.0%	-18.8%	80.0%	80.0%	0.0%
2. % Events Involving Services Shut In <60 Minutes	63.7%	75.0%	-11.3%	59.6%	75.0%	-15.4%	90.0%	90.0%	0.0%
B. Gas Transmission Customer Service Value									
1. # Unplanned Backbone Outages / Incidents	1.00	3.00	(2.00)	1.00	6.00	(5.00)	36.00	36.00	0.00
2. # Incidents per Million Dth (MMDth) Transported	0.00	TBD	N/A	0.00	TBD	N/A	TBD	TBD	N/A
3. Local Transmission Outages ⁽¹⁾	Quarterly Metric			Quarterly Metric			0.0	0.0	0.0
C. Clearance Procedures									
1. Transmission Outage Scheduling Accuracy	88.00%	65.00%	23.00%	88.00%	65.00%	23.00%	65.00%	65.00%	0.00%
D. Cold Winter Day (CWD) and Abnormal Peak Day (APD) Performance									
1. CWD & APD Performance ⁽¹⁾	Quarterly Metric			Quarterly Metric			0.00	0.00	0.00
2. Peak Day Capacity Leading Indicator	100.0%	100.0%	0.0%	80.0%	100.0%	-20.0%	89.0%	100.0%	-11.0%

(1) This is a quarterly metric. Results for 2013 will be available after Q1

III. Affordable	Month Results			YTD Results			Full Year		
	Actual	Plan	Variance	Actual	Plan	Variance	Forecast	Plan	Variance
A. Financials									
1. OPEX vs. DET budget	\$43.50	\$42.40	(\$1.10)	\$81.40	\$83.80	\$2.40	\$500.60	\$500.60	\$0.00
2. CAPEX vs. DET budget	\$53.90	\$66.50	\$12.60	\$106.40	\$135.20	\$28.80	\$907.20	\$907.20	\$0.00
B. Pipeline Safety Enhancement Plan									
1. PSEP: Strength Test Cost per Mile (\$M) ⁽¹⁾	YTD Metric			\$4.57	\$7.25	(\$2.68)	\$0.97	\$0.97	\$0.00
2. PSEP – Pipe/Valve/ILI Spend (\$M) ⁽¹⁾	\$18.05	\$17.72	\$0.32	\$39.34	\$33.41	\$5.93	\$414.60	\$414.60	\$0.00
C. Right of Way Program									
1. Centerline Survey Spend (\$M) ⁽¹⁾	\$1.30	\$4.84	(\$3.54)	\$3.50	\$9.24	(\$5.74)	\$43.40	\$43.40	\$0.00

(1) Part of PSEP and ROW STIP Metric

Gas Operations – February 2013 Business Plan Review

IV. Customer Focus	Dec-12 January			Dec-12 January			Dec-12 January		
	Month Results			YTD Results			Full Year		
	Actual	Plan	Variance	Actual	Plan	Variance	Forecast	Plan	Variance
A. Gas Asset Mapping	YTD Metric			59.00	59.00	0.00	90.00	90.00	0.00
1. Gas Asset Mapping Duration ⁽¹⁾	3.00	25.00	(22.00)	3.00	25.00	(22.00)	25.00	25.00	0.00
B. Damage Prevention									
1. Gas & Electric Dig-ins Reduction ⁽¹⁾	3.25	3.90	(0.65)	3.58	3.90	(0.32)	3.29	3.90	(0.61)

(1) STIP Metric

V. Leadership Goals	Dec-12 January			Dec-12 January			Dec-12 January		
	Month Results			YTD Results			Full Year		
	Actual	Plan	Variance	Actual	Plan	Variance	Forecast	Plan	Variance
C. Diversity	YTD Metric			-		N/A	N/A		N/A
1. Aspirational Hiring - Minority ⁽¹⁾⁽²⁾	YTD Metric			-		N/A	N/A		N/A
2. Aspirational Hiring - Female ⁽¹⁾⁽²⁾	YTD Metric			0.21	0.21	0.00	0.34	0.34	0.00
3. Supplier Diversity									

(1) Aspirational Hiring Goals are based off of Labor Market data from Affirmative Action Plans and actual hires

(2) Metric is reported one month in arrears.

VI. Continuous Improvement	Dec-12 January			Dec-12 January			Dec-12 January		
	Month Results			YTD Results			Full Year		
	Actual	Plan	Variance	Actual	Plan	Variance	Forecast	Plan	Variance
A. Pass 55 Certification	Behind	On Track		Behind	On Track		On Track	On Track	
1. PAS 55 Certification ⁽¹⁾									

(1) Tracking as Initiative. Performance will be tracked vs. action plan and reported as a modified RAG status. "On Track" (green - "On Planned Schedule"), "Behind" (amber - "Potential Risks Being Managed"),

"Off Track" (red - "Requires Immediate Intervention")

Gas Operations – February 2013 Business Plan Review

Month: February

STIP Metric: Gas & Electric Dig-ins Reduction

Description: Tracks the number of 3rd party dig-ins per 1,000 Underground Service Alert (USA) tags. The component tracks third party dig-ins to PG&E assets including non-call dig-ins. The reason for tracking third party dig-ins is because of the ability to benchmark our performance against peer utilities.

A dig-in refers to any damage (impact or exposure) that results in a repair or replacement of an underground facility as a result of an excavation. A third party dig-in is damage caused by someone other than PG&E or a PG&E contractor.

The Company participates in a one-call public service program (Underground Service Alert – USA). USA provides the Company notification of activities that could be injurious to the Company's gas pipelines and other buried facilities. These notifications are referred to as USA Tickets. A ticket is the receipt of information by the Company from USA regarding onsite meetings, project designs, or a planned excavation. A dig-in refers to any damage (impact or exposure) that results in a repair or replacement of an underground facility as a result of an excavation.

2013 Performance Goals

	Does Not Meet	Meets	Exceeds
Target	4.30	3.90	3.46
Payout	0.5	1.0	2.0

STIP Weight: 5%

STIP Metric Owner: John Higgins

Executive Owner: Nick Stavropoulos

Objective: Total number of third party dig-ins per 1,000 USA tickets in 2013. A dig-in refers to any damage (impact or exposure) that results in a repair or replacement of an underground facility as a result of an excavation. A third party dig-in is damage caused by someone other than PG&E or a PG&E contractor.

PERFORMANCE

Results:	Month			YTD			EOY		
	Actual	Target	Score	Actual	Target	Score	Forecast	Target	Score
	3.25	3.90	2.00	3.58	3.90	1.73	3.29	3.90	2.00

Explanation:

February's dig-in rate was 3.25 per 1,000 tickets and YTD was 3.58, which was below the monthly target of 3.89. Out of the 230 total dig-ins for the year, 140 or 67% of the total dig-ins were due to no calls to USA, of which, 48 were caused by homeowners/occupants. Damages caused by excavator failure to notify USA or not following safe excavation practices are not within the control of the company. Through public awareness, education and outreach, efforts by the company to pursue collection of repair costs to the at-fault party, and continuing to engage and meet with excavators will diminish the risk of damages.

ACTIONS

Milestone/Activity	Date	Owner
Tools and Equipment - Delivery of Pipe Horn tool used to supplement Locate and Mark and "pre-sweep" first party excavations is on order. Deliveries begin in February.	06/15/13	Lenny Caldwell
Public Awareness Improvement Plan	Q1 2013 Kickoff	Christine Cowser Chapman
Lean Six Sigma review of claims process	04/30/13	Maria Arquines
Deployment of Tablets	05/01/13	

Milestone/Activity	Date	Owner
Repeat Offender Process and Implementation	09/30/13	
Agreement to deploy 25 contract locators to supplement workforce	Complete and Ongoing	John Higgins
Enforcement Legislation	10/01/13	
CGA Best Practices Gap Analysis	05/01/13	



COMPLETE

(Projects will remain on template for one month)



ON-TRACK



AT-RISK

(Can be completed by EOY)



OFF-TRACK

(At-risk of not completing by EOY)

Gas Operations – February 2013 Business Plan Review

Month: February

STIP Metric: Gas Emergency Avg Response Performance

Description: The average response time that a Gas Service Representative (GSR) or qualified first responder takes to respond to the site of an immediate response gas emergency order.

2013 Performance Goals

	Does Not Meet	Meets	Exceeds
Target	23.5 Minutes	22 Minutes	20 Minutes
EOY	23.5	22.0	20.0
Payout	0.5	1.0	2.0

STIP Weight: 4%

STIP Metric Owner: [REDACTED]

Executive Owner: Nick Stavropoulos

Objective: The average response time that a Gas Service Representative or a qualified first responder (e.g., Gas Crew, Leak Surveyor) takes to respond to the site of an immediate response gas emergency order.

PERFORMANCE


Results:	Month			YTD			EOY		
	Actual	Target	Score	Actual	Target	Score	Forecast	Target	Score
	21.00	22.50	1.733	21.95	22.50	1.269	22.00	22.00	1.000

Explanation: Field Service exceed target expectations for the month of February. Unseasonably warm weather and lower units than expected in conjunction with continued Make Safe procedures aided Field Service to outperform target for the Month and YTD.

ACTIONS

Milestone/Activity	Date	Owner
Technology upgrade to improve download times from CC&B to Dispatch Application	01/19/13	[REDACTED]
Implement efficiency improvement plan to reduce make safe and overall program costs including: OnPrem / Off Prem improvements, CGI reductions, and decreasing Travel and Job times.	On-going	[REDACTED]

Milestone/Activity	Date	Owner
Develop Immediate Response order heat maps to optimize Make Safe staffing	06/30/13	[REDACTED] / R. Yamaguchi
Review of all GSR shifts to improve immediate response and maximize efficiencies	04/30/13	[REDACTED] / R. Yamaguchi

 **COMPLETE**
(Projects will remain on template for one month)

 **ON-TRACK**

 **AT-RISK**
(Can be completed by EOY)

 **OFF-TRACK**
(At-risk of not completing by EOY)

Gas Operations – February 2013 Business Plan Review

Month: February

STIP Metric: Leak Repair Performance

Description:

The leak backlog will be reduced to no greater than 1,000 by December 31, 2013. This assumes all Grade 1 leaks will be repaired in accordance with the current priority levels, all upgraded Grade 3 leaks and new Grade 2 and 2+ leaks discovered will be repaired consistent with the current aging policies.

STIP Weight:

4%

2013 Performance Goals

	Does Not Meet	Meets	Exceeds
Target	1,500 Backlog	1,000 Backlog	500 Backlog
Payout	0.5	1.0	2.0

STIP Metric Owner:

Jodie Kubota

Executive Owner:

Nick Stavropoulos

Objective:

2013 target (1.0) performance will require the grade 2 leak backlog be no more than 1,000 leaks. Stretch (2.0) performance is to achieve a backlog no greater than 500

PERFORMANCE

Results:

Month			YTD			EOY		
Actual	Target	Score	Actual	Target	Score	Forecast	Target	Score
YTD Metric		2.000	4,971	5,535	2.000	1,000	1,000	1.000

Explanation:

For February we met our target of no more than 5,535 open Grade 2 leaks at the end of the month, with a margin of about 10%. We began the year with a backlog of 4,104. No accelerated repair work (with the possible exception of capital replacement projects) is planned for the first quarter. Accelerated repair work to reduce the backlog will begin in April. In February, slightly fewer Grade 2 leaks were found than expected (807 actual vs 830 expected), and many more were repaired/cleared than expected (318 actual vs 96 expected). This explains why the actual backlog was lower than forecast.

ACTIONS

Milestone/Activity	Date	Owner
Begin repairing Grade 2 leaks within 60 days by 4th quarter	10/01/13	Jodie Kubota

Milestone/Activity	Date	Owner
Utilize contract resources in divisions with high repair volume.	4/1/2013	Jodie Kubota



COMPLETE

(Projects will remain on template for one month)



ON-TRACK



AT-RISK

(Can be completed by EOY)



OFF-TRACK

(At-risk of not completing by EOY)

Gas Operations – February 2013 Business Plan Review

Description: The number of days required to update capital jobs associated with asset installation or modification in the mapping system after construction is completed. All Capital jobs construction complete in 2013, and pending updates in the mapping system will be included in this measure beginning in 3Q 2013.

This metric measures the mapping cycle-time and the time necessary to update the mapping system based on gas asset installation or modification. Gas Mapping is responsible for the documentation of gas assets into the mapping systems. Gas construction projects that change, modify, add, or remove gas assets must be documented in a manner such that the information can be utilized to drive critical business decisions within the Gas Operations Organization. The timely documentation of these assets is key to ensure complete and accurate information is being used to facilitate safe operations and prudent decision making during emergency response.

Revised from 2012 Measure: The current metric only captures the "Mapping process" and does not measure the work in the field that has to take place once construction is complete to get the

	Does Not Meet	Meets	Exceeds
Target	100 days	90 days	60 days
Payout	0.5	1.0	2.0

STIP Weight: 5%

STIP Metric Owner: Sumeet Singh
Executive Owner: Nick Stavropoulos

Objective: The number of days required to update capital jobs associated with asset installation or modification in the mapping system after construction is completed. All Capital jobs construction complete in 2013, and pending updates in the mapping system will be included in this measure beginning in 3Q 2013.

PERFORMANCE

Results:

Month			YTD			EOY		
Actual	Target	Score	Actual	Target	Score	Forecast	Target	Score
YTD Metric	YTD Metric	1.000	59.00	59.00	1.000	90.00	90.00	1.000

*Monthly STIP score for YTD metrics reflects YTD STIP score

Explanation: We are currently meeting the metric and reporting green status. To remain green the following efforts will continue as follows:

- Provide weekly status reports
- On-going data review and clean-up to ensure accurate results
- Hold twice a week meetings / conference calls with stakeholder representatives to identify and resolve issues
- Follow the As-built checklist process

ACTIONS

Milestone/Activity	Date	Owner
Rollout and implementation of the As-built checklist, job aid and process workflow modification to Construction, Mapping and RMC	3/1/2013	
Implementation of status calls twice a week with cross functional stakeholder representation to review status of pending jobs and ensure processes are being followed	03/15/13	

Milestone/Activity	Date	Owner
Development and implementation of a weekly metric tracking report that will be shared with the key stakeholder teams to provide transparency regarding the status of each job in the process	02/18/13	
Data Quality Management team will conduct quality assessments of the As-Built process to ensure the checklist has been implemented and adhered to, proper controls have been implemented and identify and communicate critical areas in the process that need addressing by the respective functional area	On-going	



COMPLETE

(Projects will remain on template for one month)



ON-TRACK



AT-RISK

(Can be completed by EOY)



OFF-TRACK

(At-risk of not completing by EOY)

Gas Operations – February 2013 Business Plan Review

Month February

STIP Metric Execute Gas Pipeline Safety Work Index

Description This metric measures PG&E's ability to efficiently complete committed work for the following programs:
 Complete the committed work for strength testing, pipe replacement, valve automation, in-line inspection and the Centerline Survey (# of units, and for Centerline Survey -All PG&E transmission pipelines with the exception of sections with extenuating circumstances beyond PG&E's full control including customer, permitting or environmental accessibility limitations with associated supporting documentation)
 Capture cost efficiencies for strength testing, pipe replacement, valve automation, in-line inspection and the Centerline Survey (cost per mile for strength test, total \$ for other workstreams)

2013 Performance Goals (Proposed)

	STIP Score	Strength	Pipe	Valves	ILI	Centerline GIS Upload
Completion	0.5	194 Miles	81 Miles	71	115 miles	6,750 miles* by Dec 31
	1	204 Miles	84 Miles	75	121 miles	6,750 miles* by Dec 15
	2.0	214 miles	87 Miles	79	127 Miles	6,750 miles* by Nov 30
	Weighting	10%	10%	10%	10%	10%
*All PG&E transmission pipelines with the exception of sections with extenuating circumstances beyond PG&E's full control including customer, permitting or environmental accessibility limitations with associated supporting documentation						
Efficiencies	0.5	\$1.02 per mile		\$435.3M		\$50.5M
	1	\$0.97 per mile		\$414.6M		\$43.4M
	2.0	\$0.92 per mile		\$393.9M		\$35.5M
	Weighting	10%		30%		10%

STIP Weight 5%

STIP Metric Owner Kirk Johnson / Sumeet Singh

Executive Owner Nick Stavropoulos

Objective Establish goals around completion of work and efficiencies.
 Completion – Focused on 5% under run / 5% overrun in units or early completion of Centerline work.
 Efficiencies – Focused on spending above or below budget.

PERFORMANCE

Results		Month			YTD			EOY			STIP Metric Owner
		Actual	Target	Score	Actual	Target	Score	Forecast	Target	Score	
Completion	Strength	8.12	2.62	2.00	14.50	9.00	2.00	204.00	204.00	1.00	Sumeet Singh
	Pipe	2.00	2.30	0.00	3.90	4.20	0.00	64.00	64.00	1.00	
	Valves	4.00	3.00	2.00	4.00	3.00	2.00	75.00	75.00	1.00	
	ILI	0.00	0.00	1.00	0.00	0.00	1.00	120.80	120.80	1.00	
	Centerline GIS Upload	0	200	0.00	104	300	0.00	6,750	6,750	1.00	
Efficiencies	Strength	YTD Metric	YTD Metric	2.00	\$4.57	\$7.25	2.00	\$0.97	\$0.97	1.00	Sumeet Singh
	Pipe/Valves/ILI	\$18.05	\$17.72	0.00	\$38.34	\$33.41	0.00	\$414.60	\$414.60	1.00	
	Centerline Survey	\$1.30	\$4.84	2.00	\$3.50	\$9.24	2.00	\$43.40	\$43.40	1.00	
				0.90			0.90			1.00	

Explanation 2013 activities continue to ramp-up across PSEP and PLCL programs. Higher YTD costs due to acceleration of higher unit cost pipe replacement projects and additional 2012 costs on another pipe replacement project. All workstreams maintaining progress towards 2013 unit and cost targets.

ACTIONS

Milestone/Activity	Date	Owner
Implementation of Construction Contractor Alliance (Master Service Agreements)	3/31/2013	Johnson/

Milestone/Activity	Date	Date	Owner
Complete ramp-up to full-scale monthly survey production (approx. 900 miles per month)	04/01/13		Johnson/ Singh

 COMPLETE (Projects will remain on template for one month)	 ON-TRACK	 AT-RISK (Can be completed by EOY)	 OFF-TRACK (At-risk of not completing by EOY)
--	--	--	---

EXHIBIT 29






























Locate & Mark Device Replacement

Two-Phase Solution Overview

May 1, 2015

Locate & Mark Device Replacement

Device, Maps, and Viewer Deployment - Transition to Optimal State

Feature		Legend:  Static Tiff –  Dynamic GIS layers –	 Current	 Short Term (Phase 1)	 Long Term (Phase 2)
Timeline			--	5-10 weeks	12+ months
Hardware			Samsung/Android	GETAC/Windows	GETAC/Windows
Commodity	GD				
	GT				
	ED				
	ET				
	Fiber				
Software	Primary map viewer		Farallon	PlatView	GIS Maps on ESRI
	Secondary map viewers			Pathfinder GD w/GSRs, DSS GT, Webr ED	
Other	Email		Limited		
	Intranet				

Item	Count
Managed	332 Registered in-service units for Gas Ops
Available	13 For both Locate and Mark and Leak Survey
Returning from Vendor	12
Still being repaired	29

Questions?

EXHIBIT 30



Preparing for Daily Work

Procedure



Summary

This procedure contains step-by-step instructions to prepare for your daily work.

Preparing for daily work by organizing your tasks, tools, and equipment properly helps you to get ready for unexpected emergency situations, to complete your work productively, and build a positive relationship with excavators.



Target Audience

Locate and mark personnel.



Before You Start

- Read the Safety Chapter of this handbook.
- Wear the appropriate personal protective equipment (PPE) for your specific tasks and work area.
- Check your electronic tablet to ensure it works properly. Contact TSC for assistance (if needed).



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1 Preparing Your Vehicle

1. Stock your vehicle with all necessary tools and equipment needed for locate and mark.

See Job Aid TD-5811P-101-JA01, "Standard Vehicle Checklist."

2. Confirm that your locating instrument calibration had been verified and documented.

For instructions, see Procedure TD-5811P-205, "Verifying Instrument Calibration."

3. Perform an instrument daily checkout.

For instructions, see the instrument specific procedures in this handbook.

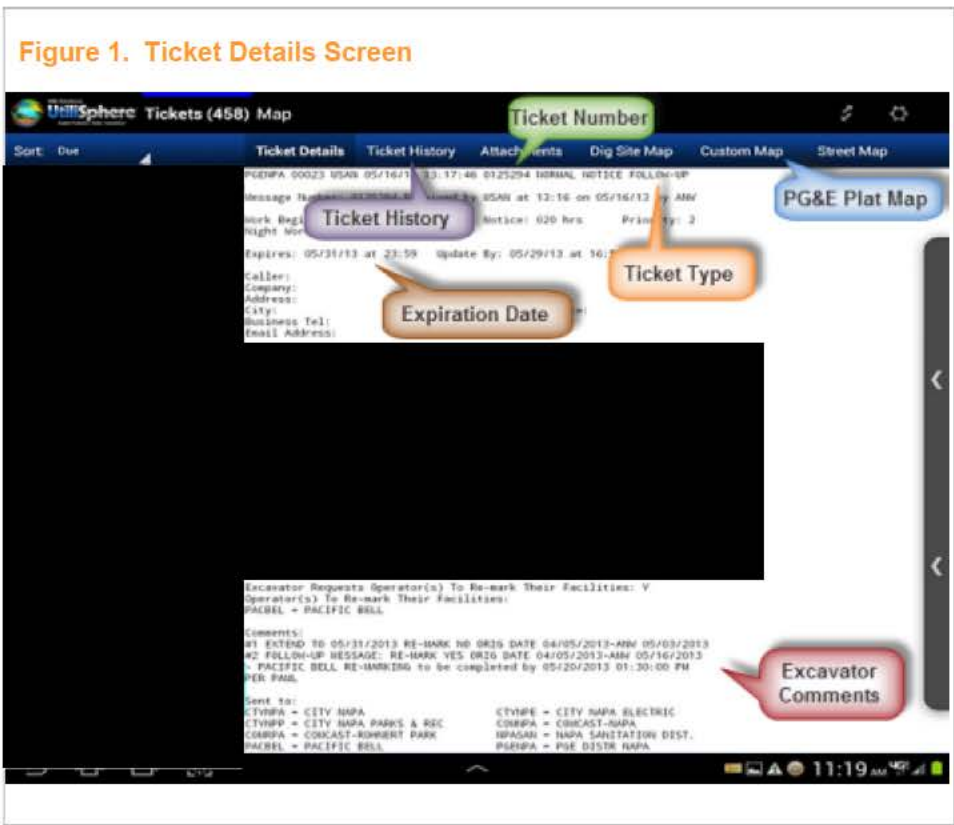
2 Pre-screening USA Tickets

1. Sync Utilisphere™ at the start of each day to update your folder.

For instructions, see Job Aid TD-5811P-102-JA01, "Using Utilisphere™ on Tablet."

2. Review all tickets in your assigned Utilisphere™ folder.
3. Look for tickets you can close without a site visit. These tickets may include the following:

- | | |
|-------------|-------------------------|
| • Canceled | • Expired |
| • Follow-up | • Misplaced |
| • Extension | • No-conflict |
| • Renewal | • Design locate request |



3 Screening Canceled Tickets

1. Review tickets in your folder.
2. Visually search for **canceled ticket icon**. A ticket becomes canceled when excavator canceled the USA ticket request.



3. IF your folder has any canceled tickets,
THEN do the following:
 - A. Select a canceled ticket to view ticket details.
 - B. Make a note of the ticket number.
 - C. Visually browse your folder for other tickets that have the same ticket number.

- D. Close all versions of the same ticket number using the **Canceled Ticket** response.

For instructions, see Job Aid TD-5811P-105-JA01 “Choosing the Correct Utilisphere™ Response.”

4

Screening Follow-up, Extension, and Renewal Tickets

1. Look for the ticket types identified by the version icons:

- **Normal Notice Follow-up**. This is a follow up of an existing ticket. Multiple versions of the same ticket ID can exist at the same time.
- **Normal Notice Extension**. This is an extension of a ticket that is older than 28 days.
- **Normal Notice Renewal**. This is a renewal of a ticket that is older than 6 months. Ticket is issued a new ID number.



Current
Version
Icon

2. IF your folder has any tickets of the above mentioned types,



Previous
Version
Icon

THEN do the following for each ticket:

- A. IF excavator comments are **for Pacific Gas and Electric Company (PG&E) or All Members**,

THEN contact excavator to request more information AND document conversation.

- B. IF excavator comments **do not identify PG&E or All Members**,

THEN close ticket using PG&E Response Not Required response. This follow-up request is for other facility owners and does not affect PG&E facilities.

For instructions to select a ticket response, see Job Aid TD-5811P-105-JA01 “Choosing the Correct Utilisphere™ Response.”

5

Screening Expired and Misplaced Tickets

1. Sort tickets by creation date.
2. Look for **expired tickets**. An expired ticket is older than 28 days, has an expiration date that has passed, but has not been extended or renewed.
 - A. IF your folder has any expired ticket,
THEN do the following:
 - 1) Inform excavator to submit a renewal or extension ticket.
 - 2) Document conversation with excavator.
 - 3) Close the expired ticket.
3. Look for **misplaced tickets**. A misplaced ticket is one that was placed in your folder by mistake.
 - A. IF your folder has any misplaced tickets,
THEN IMMEDIATELY notify your supervisor to have tickets reassigned.

For instructions to select a ticket response, see Job Aid TD-5811P-105-JA01 "Choosing the Correct Utilisphere™ Response."

6

Screening No Conflict Tickets

1. Review tickets in your folder.
2. Look for **no conflict tickets**:
 - A. Touch the **custom map tab** to view PG&E maps.
 - B. Review both gas AND electric maps (fiber is located on gas maps).
 - C. Look for any PG&E facility within 50 feet of the excavation area.

- 1) IF you identify any facility within 50 feet of excavation area,
THEN visit excavation site to determine if facility requires locate and mark activities.
- 2) Close a no conflict ticket without a site visit ONLY when:
 - NO PG&E facilities exist within 50 feet of the excavation area according to PG&E maps.
 - Excavation area is across the street from PG&E facilities and the street is narrower than 50 feet.

EXCEPTION: DO NOT close tickets without a site visit when a **critical facility** is on the plat map of excavation area.

7

Screening Tickets Requested for Design Purposes

1. Review tickets in your folders.
2. Look for tickets requested for **design purposes**. These tickets may include any combination of the following characteristics:
 - A company submits multiple tickets with the same start dates.
 - Multiple companies submit tickets for the same location.
 - Company name identified that it is an “engineering” company.
 - Excavator comments for descriptions of work are lacking details.
3. IF you suspect that a ticket may be for design purposes,
THEN confirm your suspicion by asking excavator for the following information:
 - City or county permit number for excavation area. Except for during an emergency situation, all excavations require permits. No permit means request may be for design purposes.
 - Specific plans for excavation. Request is for design purposes if excavator is unsure where to dig until after PG&E has responded.
 - Confirm excavation start date. Request may be for design purposes if start date is greater than 14 calendar days. Excavator can only submit request up to 14 calendar days in advance (CGC law 4216.1.(a)(1)).

4. IF you can confirm that ticket is for design purposes,
THEN do the following:
 - A. Provide excavator with area Division PG&E Service Planning phone number to request PG&E maps for their project design plans.
 - B. Explain that USA requests are not utilized for design purposes.
 - C. IF further explanation is needed,
THEN refer excavator to call USA at 811 for more details and law specifics.
 - D. Close ticket.

For instructions to select a ticket response, see Job Aid TD-5811P-105-JA01 "Choosing the Correct Utilisphere™ Response."

8 Syncing USA Tickets

1. Sync Utilisphere™ application to:
 - Send responses to excavators.
 - Receive new tickets that may have been created recently.
-

9 Working with Large or Complicated Ticket Requests

1. Call excavator to:
 - A. Introduce yourself. Provide your name, company name, and the reason why you are calling. This is an opportunity to build a positive working relationship with excavator. **Seize** this opportunity and build a strong foundation for future USA requests.
 - B. Discuss the proposed excavation. Discussion topics may include:
 - Specific location of excavation.
 - When does excavator plan to start?
 - Where does excavator plan to start?
-

- How far to excavate each day? This information can help you to phase ticket later if needed.
 - How deep does excavator plan to dig?
 - Which side of the street does excavator plan to dig?
 - Does the nature of work in the USA ticket contain all types of excavation planned for the project? For example, does excavator also plan to bore, but USA ticket only indicates trenching?
 - Site visit opportunity with excavator.
- C. IF information excavator provided DOES NOT match USA ticket request,
- THEN inform excavator to call USA to update ticket.
- D. Document all communications with excavator in ticket **Notes** section (see Figure 2, "Example of Proper Notes") include the following:
- Name and phone number of person you contacted
 - Discussion details (specify date)
 - Agreed action plan to complete ticket

Figure 2. Example of Proper Notes

NOTE

Spoke with John Doe 8/21/13, he plans on starting excavation 8/22/13 at 8am. We agreed to phase ticket to stay ahead of the excavation efforts. Will locate/mark the south side of Main street to First street 8/21/13 and return 8/22/13 at 8am to locate the south side of Main street to Second street.

John Doe 555-567-5309.

10

Prioritizing Tickets

1. First priority is **emergency ticket**.

- A. An emergency status:

- Is a situation that puts human life or property damage at risk (e.g. a down power line, ruptured water line).
- Has a zero hour notice that requires an immediate response.

- B. IF you have any ticket that is an **emergency ticket**,

THEN do the following:

- 1) IMMEDIATELY contact excavator to confirm emergency status.
- 2) IF ticket status is confirmed as an emergency OR if excavator CANNOT be contacted,

THEN IMMEDIATELY visit site to respond to ticket.

- C. IF ticket is confirmed as non-emergency,

THEN document conversation and prioritize ticket according to due date and time.

2. Second priority is for tickets by due date and time.

3. Third priority is for all remaining tickets including **short notice**. Short notice requests a response in less than 48 hours.

- A. IF tickets are not due right away,

THEN prioritize tickets based on routing convenience.



Emergency
Ticket Icon



Short
Notice
Ticket
Icon

11

Identifying the Need for Assistance

1. IF an excavation is in a **known** heavy traffic area or unsafe neighborhood,

THEN discuss with supervisor to have another person assist.
 2. IF assistance from a qualified electrical worker (QEW) is needed (to open enclosures 600 volts and above),

THEN notify your area electric department to request assistance.
-

12

Planning Your Route

1. Plan your route by:
 - Location
 - Priority
 - Multiple tickets
 - Job size
2. Touch the **map tab** from the Utilisphere™ screen to display all tickets in your folder on one map. See Figure 3, “Map Overview.”
 - Identify tickets (by green dots) in close proximity to your location.
 - Tap on a green dot to view ticket number.
 - Tap on ticket number to view ticket details.
3. Touch the **ticket tab** to return to ticket details screen.

Figure 3. Map Overview

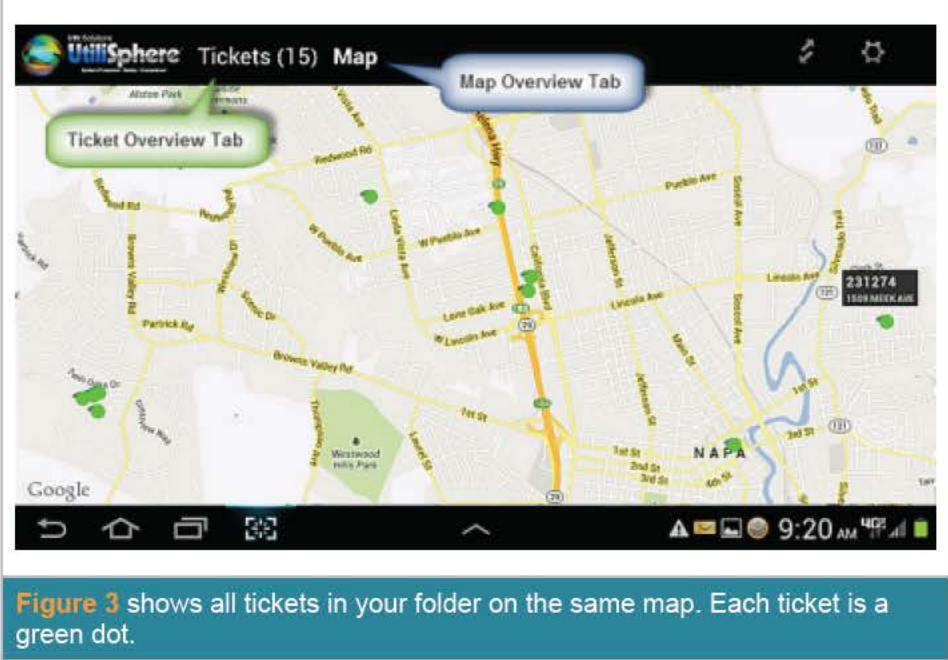


Figure 3 shows all tickets in your folder on the same map. Each ticket is a green dot.

END OF PROCEDURE



Definitions

Critical Facility is any gas transmission facility with pressure above 60 psig and any electric facility operating at or above 60 kilovolt (kV).

The following facilities may also be critical facilities:

- Facilities identified as critical by the local operating area.
- Facilities which, if damaged, are likely to result in difficulty controlling the gas flow due to their size, material properties, operating pressure, or location, as well as the personnel and equipment available.
- Electric distribution facilities which, if damaged, are likely to result in outages of long duration or outages to critical customers.

Electronic Tablet is PG&E issued device for locate and mark personnel to use in the field to complete a USA ticket.



Supplemental References

TD-5811P-101-JA01, "Standard Vehicle Checklist"

TD-5811P-205, "Verifying Instrument Calibration"

TD-5811P-102-JA01, "Using Utilisphere™ on Tablet"

EXHIBIT 31



Late Ticket Logic and Count

Prepared for PG&E

March 14, 2019

Update to the May 2, 2018 Report

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I. Updates to the May 2, 2018 report

This update to the May 2, 2018 Bates White report provides revised late ticket and total ticket counts that reflect additional work conducted since our initial report. While the central logic that relies on locator responses and notes to determine timeliness is unchanged, we have found additional ways to identify distinct tickets in the irth Utilisphere data, discovered anomalies in the data that our logic can now take into account when searching for voicemail-related information, expanded our logic to identify additional potential inappropriate use of voicemail, and refined our text search of the notes field. These changes do not reflect any conclusions that the May 2, 2018 report undercounted late tickets, but rather are consistent with that report's goals of providing a late ticket count that we believe is conservative and ensuring that the methodology is applied appropriately to the information that is available from the irth system.

This update also provides an overview of work that is ongoing to associate dig-ins with ticket numbers and with the list of late tickets. Following completion of this work, Bates White expects to supplement this report to provide a revised count and list of dig-ins associated with late tickets.

II. Overview

Bates White has been retained by PG&E Corporation to determine, based on information available in the irth UtiliSphere system, the number of times PG&E responded late to “call before you dig” requests made through the 811 call centers. Bates White is an economic consulting firm offering services to law firms, Fortune 500 companies, and government agencies. We specialize in advanced economic, financial, and econometric analysis and excel at complex matters that require sophisticated problem solving and deep empirical analysis. Bates White is an organization of more than 200 professionals, with half of our consulting professionals holding PhDs or other advanced degrees.

III. Background

PG&E uses the irth UtiliSphere platform as its ticket management system for requests received by the 811 call centers. Each request is issued a ticket, on which a locator may enter a series of responses that reflect the actions taken to resolve the ticket. The responses are selections available in a drop-down menu that are designed to correspond to certain actions. For example, a locator would choose *Facility Marked* when the site is located and marked, or *Notification of New Start Time* when a new start time is negotiated with the excavator. There are a number of different responses and each has its own meaning.

Tickets contain additional information relevant to the actions taken to resolve a ticket, and that information is often supplied in a notes field that accompanies each response. Locators may use this field

to document work performed on site, conversations with the excavator, or attempts to reach the excavator. The notes field captures nuances that the drop-down response fields are unable to convey.

PG&E has previously provided late ticket counts to the Safety and Enforcement Division (SED) of the California Public Utilities Commission, in both April 2017 and February 2018. Both counts were derived from an irth search functionality that had been revised at various points in time. Although the irth search functionality changed over time, two features remained the same. First, the search functionality did not distinguish between types of responses, even though some responses indicate that the ticket has been completed and some responses indicate that further action is needed. For example, *No Conflict* indicates that there are no PG&E facilities near the delineation area and that no further work is needed to complete the ticket. *No Response from Excavator*, however, indicates that the excavator cannot be reached to provide information that is needed to complete the ticket. Second, the search functionality did not use information present in the notes to determine whether a ticket was late, and relied only on limited other information in the ticket.

PG&E indicated at the time of the February 2018 submission that Bates White would be retained to review the ticket information and provide more accurate late ticket counts.

The approach outlined below is the approach Bates White has taken to address the shortcomings of earlier counts. In particular, we implement logic that treats different responses differently, and relies on the notes to provide additional information that is relevant to determining whether a ticket is late.

IV. Late ticket logic

The logic described below is tailored to the response type and relies on notes provided by the locator.¹ As a result, developing an understanding of the nuances under which certain responses are used and certain elements are found in the notes has been integral to developing the logic. Bates White has had a number of conversations with PG&E and irth subject matter experts to understand these nuances, and the logic reflects a best interpretation. Nonetheless, the responses and notes reflect a human element that may introduce inconsistencies in the way information is provided. To this extent, and to the extent that the information is available in the irth system, we have applied logic that we believe is conservative, and counts as late some tickets that may in fact be timely.

The logic has two main components: (i) establishing the due time and (ii) applying criteria developed for each response to determine timeliness. To perform the late ticket count, we rely on raw ticket data that we have downloaded from the irth utiliSphere platform and converted into a format that facilitates

¹ This approach is a rules-based approach that is designed to be applied to hundreds of thousands of tickets. For any one ticket, there may be additional information that would render a different late ticket determination than the one rendered by this logic.

identification and analysis of ticket information, including information found in the notes. The logic below relies on defined terms provided in the Appendix.

First, to establish the due time, we apply the latest of (i) 5 p.m. on the second business day following the day the ticket is submitted, (ii) the excavation start time, and (iii) a properly established new start time. Under certain circumstances, the locator and the excavator may negotiate a new start time. The locator would then enter a new start time in a new start time field, or in the notes. When we observe a new start time in the field or the notes, we perform a search of the notes for evidence that positive contact with the excavator was established.² For example, a notes field that indicates that the locator “spoke” with the excavator and did not leave a “message,” is counted by the search functionality as evidence of positive contact.³ If the notes do not indicate that positive contact was made, the new start time is not applied and the deadline is not extended. Once the due time is established, we are able to determine whether responses are timely or late.

Next, we describe the criteria used to determine whether certain responses render a ticket timely.⁴ The logic relies on classification of responses into three categories: (i) responses sufficient to render a ticket timely, (ii) responses sufficient to render a ticket timely, provided certain additional information is present, and (iii) responses that are not sufficient to render a ticket timely. A complete list of responses and response types is provided in the Appendix.

The first category, sufficient responses, includes those responses that indicate that the excavator request has been fulfilled and that no further action is required to complete the ticket. The presence of one timely sufficient response renders a ticket timely. Examples of sufficient responses include: *Facility Marked*, *No Conflict*, and *No Remark Required*.

The second category, responses that are sufficient provided certain additional information is present, are those that require additional evidence to be counted as timely. Examples include: *Respond to a Phased Ticket*, *Field Meet Requested*, and *No Response from Excavator*. Responses of this type may indicate that a revised schedule will be implemented, that the locator needs to meet the excavator on site, or that all possible steps have been taken to complete a ticket but work remains. The revised logic requires additional evidence, in addition to the response, to make the determination that a ticket is timely. For this category of responses, we search the notes or apply certain other requirements to determine whether the additional information is present. If the additional information is present, we conclude that the criteria

² If a new start time provided in the notes is different from the new start time provided in the field, we take the earlier of the two.

³ The Appendix provides the full list of search terms.

⁴ As is consistent with earlier late ticket counts, we exclude tickets with certain characteristics from the analysis. The tickets excluded are generally those that indicate transmission work, are of an emergency or short notice nature, or are for design purposes. A full list of excluded categories is provided in the Appendix.

have been met and the ticket is rendered timely.⁵ The criteria for individual responses in this category are provided in the Appendix.

Most responses in the second category rely on a search of the notes to determine whether a ticket is timely. We have identified several terms that are associated with the presence or absence of particular requirements, and the logic described here searches the notes to determine whether those terms are present. Nonetheless, a text search is imperfect, and certain terms may not always have the desired association. To the extent that the association exists but is not strong for certain terms, we have made the conservative decision to exclude these terms from the search criteria. The examples below illustrate situations in which the locator has made positive contact with the excavator or is performing work as required by the logic for the particular response, but the notes do not contain terms that can be used by an automated process to indicate that the requirements have been met. As a result, the search methodology, out of an abundance of caution, classifies these tickets as late:

1. The locator enters a *Field Meet Requested* response and attempts to make contact with the excavator on at least three occasions. The notes on the second response, which is timely, state, “Let excavator know that I visited site and road was blocked. He will not do job until Monday.”⁶ The fact that the locator knew the job would not start until Monday suggests that positive contact was made. However, the terms in the response are not sufficient for an automated process to identify positive contact. By the fifth response, contact has been established and is identified by the term “spoke,” but the response is entered after the due time and the ticket is counted as late.
2. The locator enters a *Notification of New Start Time* response with note: “Caller Ernie called me this morning at about 5:59 am on 2-25-13, and he told me that he was going to be in training all day and that maybe we can set-up fld. meet for Tues. the 26th. I called him bk. at 6:50 am on same date to let him know that I received his message, and to call me when he gets a chance to set-up fld. meet.”⁷ The note indicates that there was a voicemail exchange between the locator and the excavator. However, the voicemail-related terms that we observe are typically associated with a one-way transfer of information, not an exchange of information. For this reason, we use the presence of voicemail-related terms to indicate that positive contact was not established. A *Notification of New Start Time* response requires evidence of positive contact for the new start time to be applied. The presence of voicemail-related terms in this example means that the new start time is not applied, and as a result the ticket is counted as late.

⁵ Responses that indicate phasing illustrate the need for this category of responses. Large jobs may require a phasing approach that extends the work over a period of time and, through discussion with the excavator, would reasonably extend the deadline. Nevertheless, because the system does not have a preconfigured field that would automatically capture and facilitate a timeliness review of every step of an agreed upon phasing plan, the revised approach will count a phased approach as timely if and only if the first phased response is timely and demonstrates evidence that the locator performed work or made positive contact with the excavator.

⁶ See ticket number X629300301, registration code PGEVAC, version 0, submitted on October 19, 2016.

⁷ See ticket number 064246, registration code PGESJO, version 0, submitted on February 21, 2013.

3. The locator enters a *Respond to a Phased Ticket* response with note: “Will work ahead of crew to mark facilities.”⁸ The note suggests that the locator was working to implement a phasing plan, but it does not have the specific terms the logic requires to find evidence that work was performed. The term “work” is often used as a noun, as in “where the work is being done” or “work will start,” and does not provide sufficient evidence that work was performed. The next response entered on this ticket is *Facility Marked*, but the response is entered after the due time. This ticket is therefore counted as late.

The third category, insufficient response, includes all remaining responses. Insufficient responses indicate that the actions taken are not sufficient to address the excavator request, and therefore do not render the ticket timely. Examples include: *Inclement Weather* and *Expired Ticket*. In sum, a ticket is rendered timely if and only if the ticket contains a timely sufficient response or a timely response with the certain additional information required by that response. All tickets not rendered timely are rendered late.

V. Late ticket count

Implementing the late ticket logic described above, we arrive at the late ticket counts provided in Figure 1.⁹

Figure 1: March 2019 revised late ticket count

	2012	2013	2014	2015	2016	Jan-Feb 2017
March 2019 revised late ticket count	13,687	29,298	29,340	36,414	31,468	5,719
Total ticket population ¹⁰	613,786	657,268	701,751	819,040	898,035	130,070
Percent late	2.2%	4.5%	4.2%	4.4%	3.5%	4.4%

⁸ See ticket number 442237, registration code PGEAUB, version 0, submitted on November 6, 2013.

⁹ The total ticket counts have been revised to reflect a more refined ticket counting methodology. The new method adds the time that the ticket was received to distinguish tickets. In a limited number of instances, the same ticket number, registration code, and version number combination may be repeated within a calendar year, as evidenced by the tickets having different received times. These tickets are in fact different, and the new methodology counts them as separate tickets.

¹⁰ Tickets are counted as distinct combinations of ticket number, registration code, version number, and received time. The year in which a ticket is counted is determined by the time the ticket was received in Eastern Time. The ticket population consists of the full ticket population before exclusions, and contains tickets with registration codes PGE, PGE01, PGE22, PGE23, PGEAUB, PGEBAK, PGEBEL, PGEbfd, PGEBR2, PGEBRE, PGEBUR, PGECHI, PGECLM, PGEcND, PGECUP, PGEEUR, PGEFIB, PGEFNO, PGEGVY, PGEgWH, PGEgWT, PGEHAY, PGEHIN, PGEHIS, PGEHOL, PGEKET, PGELME, PGEMCD, PGEMDO, PGEME2, PGEMER, PGEMIL, PGEMSV, PGENPA, PGEOAK, PGEORO, PGEPLA, PGERBF, PGERCH, PGERED, PGERID, PGERVI, PGESAC, PGESAL, PGESFO, PGESJO, PGESLO, PGESRF, PGESRO, PGESTK, PGETOP, PGETR1, PGETR2, PGEUET, PGEUKH, PGEVAC, PGEVJO, and PGEWIL. The ticket counts also represent a revision to the corrected ticket counts provided to SED on June 20, 2018.

VI. Dig-ins

PG&E also asked Bates White to match a list of dig-ins and associated ticket numbers to the list of late tickets identified using the late ticket logic described above. PG&E provided a list of dig-ins and associated ticket numbers ahead of our initial May 2 report and we used this list to determine the number of dig-ins associated with late tickets provided in the May 2 report.¹¹ At that time we identified 195 dig-ins that were associated with late tickets.

Subsequent to the May 2 report, Bates White assisted PG&E in identifying dig-ins for further review. PG&E has reviewed additional records and found ticket numbers for some dig-ins that were not previously associated with a ticket number. PG&E's and Bates White's work relating to these dig-ins is ongoing. Bates White will provide additional information when this work is complete.

¹¹ See "Q32_Dig-In Data Source_LT QC_Final.xlsx" for the list of dig-ins and ticket numbers used to generate the total number of dig-ins associated with late tickets provided in the May 2 report.

Appendix A. Procedure to identify late tickets

This Appendix describes in detail the methodology used to identify late tickets.

A.1. Defined terms

1. Evidence of Work: Locator notes contain at least one positive work term and do not contain any negative work terms.
 - a. Positive work terms: *marked, flagged, flag, painted, photo, pic, pics, picture, complete, located, offsets, found, work comp, job was done, clear per maps, no PGE, no PG&E, still visible, still visable, #*¹²
 - b. Negative work terms: *not marked, will be marked, to be marked, not flagged, will be flagged, to be flagged, not flag, not placed flag, not put flag, not painted, will be painted, to be painted, not complete, will be completed, to be completed, not located, will be located, to be located, not found, no work comp, excavated before, verify mark, unclear, will start*¹³
2. Evidence of Negotiation: Locator notes contain (i) at least one positive past-tense negotiation term and no voicemail-related terms, or (ii) more positive negotiation terms than negative negotiation terms and no voicemail-related terms.¹⁴
 - a. Positive past-tense negotiation terms: *communicated, negotiated, spoke, stated, I told, talked, followed up, he said, he told*¹⁵
 - b. Positive negotiation terms: *per, direct contact, contact with, contact from, conversation, scheduled*¹⁶
 - c. Negative negotiation terms: *no contact with, no contact from, no conversation, unscheduled, not scheduled, to be scheduled, will be scheduled, tried, unable, not able*¹⁷

¹² We include commonly observed misspellings, such as *visable*. The *#* search indicates a number of inches one through eight. Short text strings, such as *pic* and *pics*, are required to be surrounded by spaces or punctuation to avoid picking up longer words, such as *topics*. The requirement that short text strings are surrounded by spaces or punctuation is a change that we have made since the May 2 report to improve the text search.

¹³ The way that we use positive and negative work terms to identify Evidence of Work in the notes field has not changed since the May 2 report. However, for clarity, we list here positive work terms and their specific negations. The negations override only the specific positive work term with which they are associated: *marked* (not: *not marked, will be marked, to be marked, flagged* (not: *not flagged, will be flagged, to be flagged*), *flag* (not: *not flag, not placed flag, not put flag*), *painted* (not: *not painted, will be painted, to be painted*), *complete* (not: *not complete, will be completed, to be completed*), *located* (not: *not located, will be located, to be located*), *found* (not: *not found*), *work comp* (not: *no work comp*). Negative work terms that do not have an associated positive work term (*excavated before, verify mark, unclear, and will start*) override any positive work term.

¹⁴ The method we use to identify Evidence of Negotiation in the notes has changed since the May 2 report. We now require that positive past-tense negotiation terms are not accompanied by any voicemail-related terms. Previously, a positive-past tense negotiation term would override a voicemail-related term. We made this change to make the approach more conservative.

¹⁵ *He told* was used as a positive past-tense negotiation term in ticket logic underlying the May 2 report, but was inadvertently not included in this list.

¹⁶ Short text strings, such as *per*, are required to be surrounded by spaces or punctuation to avoid picking up longer words, such as *property*. The requirement that short text strings are surrounded by spaces or punctuation is a change that we have made since the May 2 report to improve the text search.

¹⁷ The way that we use positive and negative negotiation terms to identify Evidence of Negotiation in the notes field has not changed since the May 2 report. However, for clarity, we list here positive negotiation terms and their specific negations. The negations override only the specific positive negotiation term with which they are associated: *contact with* (not: *no contact with*), *contact from* (not: *no contact from*), *conversation* (not: *no conversation*), *scheduled* (not: *unscheduled, not scheduled*,

- d. Voicemail-related terms: *call back, voice, message, left mess, left msg, msg left, left a msg, vm, v/m, text, l m, lm, l/m, lvm*; or, Method of Contact indicates *Voicemail*¹⁸
3. Improper Phased Response: Phased Response (defined below) that is followed by a *No Conflict*, *No Conflict – Cleared From Office*, or *No Remark Required* response. The Phased Response will not be deemed improper if the *No Conflict* response is accompanied by Evidence of Work.
4. No Access: Response *No Response from Excavator* is accompanied by locator notes that contain at least one access term.
 - a. Access terms: *arrived, gate, cgi, locked, access, not home, yard, dog, get into, let me into, delineation, dilineation, delniation*¹⁹
5. Note Date: Locator notes contain a date in one of the following forms:²⁰
 - a. MM/DD/YYYY or MM/DD, with or without leading zeroes for months and days, with or without century for the year, and with “/”, “.”, or “-” as separators.
 - b. Full or abbreviated day of the week.
 - c. Relative day terms: *tomorrow, weekend, next week, 2 week*. The date applied for these terms is relative to the date the response is entered.
 - d. Full or abbreviated months and a numerical date in the forms: Day, Month, Day Month, Month Day, Day Month Year, Month Day Year.

A.2. Determining the starting population

The ticket population available on the irth platform includes categories of tickets not relevant to or that have been excluded from previous late ticket counts. These tickets are identified by their ticket type or by the presence of other characteristics on the ticket. Tickets excluded are:

1. Tickets with type: *Cancel, Damage/Exposed, Damaged Exposed, Emergency, Now, Priority, Rush*, and *Short*. The remaining ticket types: *Normal, Regular*, and *Remark* are included.
2. Design tickets as identified by:
 - a. The presence of the term “design” in the notes field with associated response *Canceled Ticket, PG&E Response Not Required*, or *Bad Tix Info – Resubmit*.
3. Transmission tickets as identified by:

to be scheduled, will be scheduled). Negative negotiation terms that do not have an associated positive negotiation term (*tried, unable, and not able*) override any positive negotiation term.

¹⁸ Method of Contact may be indicated as *Voicemail* either in the Method of Contact field or in the ticket text associated with the response. The May 2 late ticket count relied on the Method of Contact field, which in some instances that seem to be anomalies, did not contain complete information. The revised late ticket count relies on both the Method of Contact field and the Method of Contact information contained in the ticket text. Short text strings, such as *lm*, are required to be surrounded by spaces or punctuation to avoid picking up longer words, such as *film*. The requirement that short text strings are surrounded by spaces or punctuation is a change that we have made since the May 2 report to improve the text search. The search term *left mess* has been added as a voicemail-related term since the May 2 report. We made this change to make the approach more conservative.

¹⁹ We include commonly observed misspellings, such as *dilineation* and *delniation*. Short text strings, such as *dog*, are required to be surrounded by spaces or punctuation to avoid picking up longer words, such as *dogleg*. The requirement that short text strings are surrounded by spaces or punctuation is a change that we have made since the May 2 report to improve the text search.

²⁰ The earlier Note Date is taken if two are found. We apply a due time of 5 p.m. on the Note Date.

- a. Placement in a folder with the term *Trans*, *UET*, or *Pole* in the folder name.
 - b. Registration codes with associated areas containing the term *Trans* or *Ground water*.²¹
 - c. Registration codes with associated note: *All Tickets Auto-Processed*.²²
4. Registration code is *PGE* or call center is *IRTHNET*.

Tickets are identified by unique ticket number, registration code, version number, and received time combinations.²³

A.3. Determining the due time

The due time is the latest of:

1. Five p.m. on the second business day following the day the ticket was taken,
2. The excavation start time, and
3. A properly established new start time.

A properly established new start time requires that the new start time is accompanied by Evidence of Negotiation. New start times may be drawn from the new start time field or from the notes (Note Date); the earlier of the two is chosen when both are provided. Properly established new start times are applied to all subsequent responses on a ticket.

A.4. Response types

The responses are divided into three categories: Sufficient Response; Sufficient Response, Provided Requirements are Met; and Insufficient Response.

1. Sufficient Response: *No Remark Required, Facility Marked, No Conflict, No Conflict – Cleared From Office, Duplicate Ticket, PG&E Response Not Required, ZZ Pole Test And Treat-Autoclosed, Excavated Before Marked, Located By PG&E Crew, Responding To Complete A Phased Ticket*
2. Sufficient Response, Provided Requirements are Met:
 - a. Phased Response: *Respond To A Phased Ticket, Respond To An Open Ticket, Responding To An Ongoing Ticket*
 - b. Field Meet Requested Response: *Field Meet Requested – (Trans. Or Dist.)*
 - c. Field Meet Performed Response: *Field Meet Performed (Transmission), Field Meet Performed (Distribution)*

²¹ See “Reg Code Descriptions.xlsx.”

²² *Id.*

²³ As described in footnote 9, the methodology used to count tickets has changed. Ticket numbers may have multiple registration codes, which indicate the area where work is performed. Ticket numbers may also have multiple version numbers, which indicate a follow up or extension of an existing ticket. In a limited number of instances, the same ticket number, registration code, and version number combination may be repeated within a calendar year, as evidenced by the tickets having different received times. For a given ticket number, distinct registration codes, version numbers, and received times are counted as separate tickets.

- d. No Response from Excavator Response: *No Response From Excavator*
 - e. Deadline Response: *No Delineation, Bad Tix Info – Resubmit, Canceled Ticket*
3. Insufficient Response: *Notification Of New Start Time, Inclement Weather, Expired Ticket, Re-Assigned Ticket(Do Not Close!), ZZ Test Positive Response To Excavator, ZZ Gas Transmission Warning, X.No Conflict Sac **(Do Not Use!!!)***

A.5. Rule to identify late tickets

- 1. One timely Sufficient Response renders a ticket timely.
- 2. One timely Sufficient Response, Provided Requirements are Met renders a ticket timely, provided:
 - a. The timely Phased Response demonstrates Evidence of Work or Evidence of Negotiation, and is not an Improper Phased Response.
 - b. The timely Field Meet Requested demonstrates Evidence of Work or Evidence of Negotiation.
 - c. The timely Field Meet Performed Response demonstrates Evidence of Work.
 - d. The timely No Response from Excavator Response indicates No Access.
 - e. The timely Deadline Response is not entered in the two hours directly preceding the due time.
- 3. A timely Insufficient Response does not render a ticket timely.

EXHIBIT 32

To: Christopher, Melvin[M6CE@pge.com]; Soto Jr., Jesus[J81K@pge.com]
Cc: Carroll, Jeff[JLC5@pge.com]
From: "Jue, Donnie"
Sent: Tue 3/28/2017 6:08:28 PM (UTC-07:00)
Subject: RE: Discussions with L&M ELT

Mel,

I think the group was shocked that we received feedback on potential issues with late or re-negotiated tickets. They worked hard to address this issue last year and felt it was resolved and the comment from one Supervisor was “he felt like he was punched in the gut”. We re-assured him and the group that this was feedback at this time and it may amount to no issues identified but we have to conduct a review to be sure we don’t have gaps in our process. As for IA/QM, I have spoken to both today to discuss expectations and how this review should be handled. I expressed that this review should not be viewed as threatening or attempts made to single out an area or individual. We want to conduct a thorough review to identify a root cause and fix.

As for meeting with IA/QM, our call is still scheduled for Thursday afternoon.

Thanks

Donnie Jue

Gas Compliance Manager
1850 Gateway Blvd., Concord
Office: 8-459-8020 (internal)
925-459-8020 (external)
Cell: 510-760-4225



From: Christopher, Melvin
Sent: Tuesday, March 28, 2017 2:59 PM
To: Jue, Donnie; Soto Jr., Jesus
Cc: Carroll, Jeff
Subject: RE: Discussions with L&M ELT

Thank you Donnie. I appreciate that you are moving forward with the review. Did you get any feedback from the group? As we discussed earlier, I do want the opportunity to review with you the IA/QM audit plan and timeline before we move forward so that I am able to provide input.

Mel

From: Jue, Donnie
Sent: Tuesday, March 28, 2017 11:51 AM
To: Soto Jr., Jesus; Christopher, Melvin
Cc: Carroll, Jeff
Subject: Discussions with L&M ELT

Jesus & Mel,

Just want to share that Jeff Carroll and I spoke with the L&M ELT this morning. This call had been scheduled in advance and I wanted to take advantage of the opportunity to speak to the entire group. Jeff and I shared in great detail the process and intent of the AGA Peer Review Program. The ability to not only have our peer utilities review our processes but to also take back some of our best practices observed. We shared with the team feedback from the AGA peer group both great things PG&E is doing and items they identified as areas for improvement. We did share the feedback from the Peer team on late and re-negotiated tickets as an area to review and implement improvements. We took the time to express our concerns but at the same time ensure understanding by the team that there may or may not be an issue but a need to determine if there are gaps in our process. I explained that in order to do that we are soliciting help from IA and QM to conduct a third party review. I explained the intent is to again determine and identify gaps in our process/es and develop improvements so this doesn’t continue to occur. I shared that the review was not to target any individuals or areas, that we would be looking across the system.

During the call we also felt it was important to be transparent and share with the team the SED data request. This is a huge request and it may require support from the Supervisors to gather some of the information. We shared what we knew of the request and asked that they stay focused on their employees and work at hand more specifically Safety and Compliance. We committed to keeping the team updated, share the schedule and status of the IA/QM reviews as well as the SED data request.

We know that both of you wanted to speak to the group personally and our intent was not to undermine your request. Your schedules are busy but we can still schedule a call or meeting if you still desire. However, we felt it was an opportunity we couldn't pass up and it was necessary for us to take immediate actions to move forward with the internal review and as well as address the data request.

Thanks

Donnie Jue

Gas Compliance Manager

1850 Gateway Blvd., Concord

Office: 8-459-8020 (internal)

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Cell: 510-760-4225



EXHIBIT 33



Data Response

*** Please distribute only Question(s) and Response(s). The form area above is for Internal Use only.**

PG&E is providing this response pursuant to Public Utilities Code §583 because this response and/or the attached documents contain information that should remain confidential and not be subject to public disclosure as it contains one or more of the following: critical infrastructure information that is not normally provided to the general public, the dissemination of which poses public safety risks (pursuant to the Critical Infrastructures Information Act of 2002, 6 U.S.C. §§131-134); sensitive personal information pertaining to PG&E employees customer information; or commercially sensitive/proprietary information. This information is highlighted yellow below and, if feasible, highlighted yellow or outlined red in the referenced attachments.

See attached declaration supporting confidential designation ("Index 10279_Confidentiality Declaration.pdf").

QUESTION 10279.01: In response to QUESTION 9623.03, the spreadsheet provided lists the number of late tickets for the years 2014 to 2016. For these late tickets, please provide the following information:

- (a) Project and location
- (b) Name of the contractor and contact information (address, phone number, email etc.)
- (c) Name of the PG&E designated locator and contact information
- (d) USA ticket number and the date ticket was requested
- (e) Project start date
- (f) The day and time, PG&E personnel contacted contractors, whether by phone, email and others
- (g) The day and time, PG&E personnel actually talked/conversed with the contractor personnel for mutually agreed time. Please provide record confirming the mutual agreement
- (h) The comment section for each of the mutually agreed instances as recorded in USA ticket

RESPONSE 10279.01 (Delivered 11/16/16): Prior to 2016, PG&E captured late ticket counts for reporting purposes only and did not generate reports with the associated USA ticket information; therefore, PG&E is not able to provide the requested information for the 2014-2015 late tickets.

Please see attachment "*Index 10279-01_Jan-Jun 2016 Late Tickets.xlsx*" for PG&E's late ticket report for January 2016 through June 2016. Please note that PG&E uses IrthNet's "Past Due Ticket Listing" report to generate the late ticket reports, which does not provide the full USA Ticket response details; the individual USA ticket will need to be consulted for further details.

- (a) This information is not currently captured in the late ticket report; however, PG&E can provide the USA tickets at SED's request.
- (b) This information is not currently captured in the late ticket report; however, PG&E can provide the USA tickets at SED's request.
- (c) See column titled "Locator/Folder". Please direct inquiries regarding a specific USA Ticket or locator to PG&E's Regulatory Compliance organization.
- (d) See columns titled "Ticket ID". The date ticket requested information is not currently captured in the late ticket report; however, PG&E can provide the USA tickets at SED's request.
- (e) See column "Date Time".



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- (f) This information is not currently captured in the late ticket report; however, PG&E can provide the USA tickets at SED's request.
- (g) This information is not currently captured in the late ticket report; however, PG&E can provide the USA tickets at SED's request.
- (h) This information is not currently captured in the late ticket report; however, PG&E can provide the USA tickets at SED's request.

RESPONSE 10279.01 Supp01 (Delivered 6/29/2018): The previous responses to Question 10279.01 addressed a spreadsheet of tickets that has been superseded. The most accurate and complete information available to PG&E regarding tickets that should be identified as late was provided to CPUC in connection with Bates White's Late Ticket Logic and Count Report (provided to CPUC on May 2, 2018, and modified as to total ticket population on June 20, 2018). The rules that Bates White implemented for its analysis took into account, to the extent feasible in an automated attempt to apply a single set of rules and criteria to approximately 3.8 million tickets and their various fields and notes, information described in Question 10279.01.

RESPONSE 10279.01 Supp02 (Delivered 7/31/2018): In Response 10279.01 (delivered to the CPUC on November 16, 2016), PG&E stated that: "Prior to 2016, PG&E captured late ticket counts for reporting purposes only and did not generate reports with the associated USA ticket information..." As an update to this response, PG&E believes that the use of IRTNet to query late ticket data may have begun in November 2015 rather than in January 2016.

QUESTION 10279.01 Supp01: While I study the information you submitted, we still need to find a way for accessing the information regarding 2014 and 2015 late tickets, please consult appropriate PG&E personnel and let us know the options.

RESPONSE 10279.01 Supp01 (Delivered 11/18/16): Starting in January 2016, PG&E began using IrthNet to query late ticket data. It was also in January 2016 that PG&E began archiving late ticket data. Prior to 2016, PG&E was only recording the number of late tickets, using a system other than IrthNet; unlike IrthNet, this system does not house USA ticket details, therefore, PG&E cannot correlate the 2014-2015 late ticket totals reported in Response 9623.03 to their respective USA tickets. Additionally, IrthNet (the current tool used to query late tickets) is limited to the past 60 days and cannot be used to query the late tickets associated with the 2014-2015 totals previously reported.

QUESTION 10279.02: Also in response to QUESTION 9623.03, provide information on cancelled tickets:

- (a) Project and location
- (b) Name of the contractor and contact information (address, phone number, email etc.)
- (c) Name of the PG&E designated locator and contact information
- (d) USA ticket number and the date ticket was requested
- (e) The reason for cancellation of ticket, and substantiating record



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RESPONSE 10279.02 (Delivered 11/16/16): Please see attachment "[Index 10279-02_Jan2013 - Jun2016 Cancelled Tickets_CONF.xlsx](#)" for an export from IrthNet of cancelled tickets received between January 2013 and June 2016.

PG&E would like to correct the cancelled ticket totals previously reported in Response 6323.03 Supp01(f); upon further research into the cancelled tickets received between January 2013 and June 2016, PG&E has determined that the previously reported totals were incorrect. Please see below for the correct number of cancelled tickets between January 2013 and June 2016:

Year	Total Cancelled Tickets Received ¹	Tab Name
January - June 2016	5177	"TicketExport_Jan - Jun 2016"
2015	9658	"TicketExport_2015"
2014	8386	"TicketExport_2014"
2013	8358	"TicketExport_2013"

¹Note that the cancelled ticket export and totals provided above are inclusive of each instance of a recalled (cancelled) ticket received by each PG&E work center (registration code), and as such there may be multiple cancellation tickets associated with a USA Ticket number (there may be more than one PG&E work center that receives a USA Ticket, depending on the area, and each work center receives a cancelled ticket when the excavator recalls their request).

- (a) See column titled "Work Type" for the work type (project); see columns titled "County", "Place", and "Street" for the project location.

Note, the "Street" Column in tabs "TicketExport_Jan - Jun 2016", "TicketExport_2015", "TicketExport_2014", and "TicketExport_2013" in attachment "[Index 10279-02_Jan2013 - Jun2016 Cancelled Tickets_CONF.xlsx](#)" contain confidential customer specific data. This information is highlighted yellow in the attachment.

- (b) See column titled "Excavator Name" for the excavating company; see columns titled "Contact Name" and "Contact Phone" for the excavator's name and phone number.
- (c) See column titled "Last Response Locator Name". Note that this column captures the personnel who submitted the last ticket response (closed the ticket) in the system, which may be the designated locator or PG&E's IrthNet administrator. Please direct inquiries regarding a specific USA Ticket or locator to PG&E's Regulatory Compliance organization.
- (d) See columns titled "Ticket ID" and "Received Time".
- (e) Excavators are not required to provide a reason for cancelling a ticket.

QUESTION 10279.03: In response to question 9623.05 Supp01, the spreadsheet provides information on completed tickets that include those that are closed out without a field visit (via verification using maps or a conversation with the excavator). Please provide:



Data Response

- a) What is meant by the tickets that were closed without field visit via verification using maps?
- b) What is meant by tickets that were closed by conversation with contractors without a field visit? Provide sample records of those closed with the record of conversation
- c) On the work load of locators, you mentioned that it is not tracked by individual locators. However, we understand that PG&E can extract this information from the logs or other sources. Please provide this information
- d) You have provided total number of locators in each month for the period 2014-2016. Can you please provide information showing that how many locators worked in each Division during each month of this period?
- e) Typically how many number of tickets an average locator is expected to complete in a day that is used as a guideline when assigning tickets to them?
- f) For the period 2014-2016, provide minimum and maximum number of tickets completed by a locator in each year?

RESPONSE 10279.03 (Delivered 11/16/16):

- (a) PG&E is still gathering this information and will provide a response as soon as available.
- (b) PG&E is still gathering this information and will provide a response as soon as available.
- (c) PG&E is still gathering this information and will provide a response as soon as available.
- (d) PG&E continuously tracks the current head counts in each division; however, PG&E has not maintained historic monthly snapshots by division. Please see the table below for the current Locate and Mark personnel head counts by division, as of October 31, 2016.

L&M Head Count as of October 31, 2016	
<u>L&M North</u>	
East Bay	12
North Bay	11
Diablo	13
Mission	8
Sonoma/Humboldt	15
Sacramento	13
Vacaville	6
Sierra/North Valley	17



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Stockton	8
<u>L&M South</u>	
Yosemite	15
San Jose (Edenvale)	18
San Francisco	9
DeAnza	10
Peninsula	12
Central Coast/Los Padres	12
Fresno	14
Kern	10

(e) Due to the reasons stated in PG&E Response 9623.04 Supp01, PG&E does not set expectations for locators to complete a target number of tickets.

(f) PG&E is still gathering this information and will provide a response as soon as available.

RESPONSE 10279.03 Supp01 (Delivered 11/18/16):

- a) In alignment with USA North guidance and California Government Code §4126.3, if PG&E can determine through maps or records that the proposed excavation is obviously not in conflict with a PG&E facility, PG&E will notify the excavator of “No Conflict” by phone, fax, or email, or through the One Call Center, where electronic positive response is used.
- b) Conversation(s) with an excavator may provide additional information than that captured in the ticket description. Through the conversation, it may be determined that the ticket needs to be updated, the ticket is a duplicate, the ticket is actually a pipeline location request for design purposes only, or the conversation could provide clarity on the actual excavation location. Based on this new information, the ticket can potentially be closed (e.g. mapping information or records may be used to determine that there is no conflict with the excavation, the ticket could be closed as duplicate, PG&E engineering department could be contacted by excavator to assist with design when appropriate, etc.). PG&E does not have a sample record readily available, as this will require further research. PG&E is still looking for a sample record and will provide one as soon as possible.



Data Response

- c) Please see attachment *"Index 10279-03_Jan-June 2016 Closed Ticket Counts.xlsx"* for the total tickets closed out by a Locate and Mark department employee between January and June 2016. PG&E is still compiling the 2013 - 2015 data and will provide it as soon as available.
- f) As indicated above in PG&E's Response 10279.03(c) Supp01 above, PG&E is still gathering the 2013 - 2015 data and will provide a response as soon as available.

RESPONSE 10279.03 Supp02 (Delivered 1/23/17):

b) Please see attachments *"Index 10279-03b_USA Ticket X620200300.pdf"* and *"Index 10279-03b_USA Ticket X621600266.pdf"* for examples of USA tickets that were cleared in the office after informing the excavator that there was no conflict due to there being no subsurface PG&E gas facilities located within the project area.

c) Please see the following attachments for the total tickets closed out by a Locate and Mark department employee (or in some instances an employee outside the Locate and Mark organization) between 2013 and 2015.

- *"Index 10279-03c_2013 Locators.xlsx"*
- *"Index 10279-03c_2014 Locators.xlsx"*
- *"Index 10279-03c_2015 Locators.xlsx"*

Additionally, upon further review, PG&E has determined that the data provided for March-June 2016 (provided on November 16, 2016 in Response 10279.03 Supp01) did not reflect the correct number of tickets closed by Locate and Mark personnel (or in some instances an employee outside the Locate and Mark organization) for March-June 2016. Please see attachment *"Index 10279-03c_Jan-June 2016 Locators_Revised.xlsx"* for the revised worksheet.

f) The 2013-2015 ticket data provided in Response 10279.03c Supp02 indicates the following minimum and maximum number tickets worked each year by a single individual.

Year	Minimum Number of Tickets Closed ¹	Maximum Number of Tickets Closed
2013	1	18,770
2014	1	16,352
2015	1	16,131

¹ In the instances of an employee working one ticket over the course of a year, it may be attributed to employees who are operator qualified to perform locate and mark tasks from a work group outside the Locate and Mark (L&M) organization (such as gas crew) performing locate and mark in circumstances that may fall outside the typical production workload of the L&M organization.

EXHIBIT 34

March 2017 AGA Peer Review Feedback and Action Plan

Locate & Mark Opportunities:

Opportunity	Owner(s)	Potential Solutions	Due Date	Status
Metrics: Lack of Integrity Could not get numbers to match up ONE group should be measuring Late Tickets – Specifically a problem – Open to manipulation Inclimate weather being abused Renegotiated tickets another problem area Employees shared that late tickets are occurring – just not showing up in metrics Metrics show 30-40 Late tickets last year – One employee stated, “There were 30-40 late tickets in my division last week.” Resources are not provided when needed Should use Cost per Ticket – not Minutes per Ticket	Jeff Carroll Dominick Amparano Andy Wells	Enlist Internal Audit (IA) and Quality Assurance (Q/A) to assist in assessing the extent of condition Determine Corrective Actions based upon the assessment Implement Corrective Actions Assess the effectiveness of the Corrective Actions Review and correct if needed		
Employee Perception: “We are not valued.” No attention until something goes wrong Too many open positions HUGE turnover – Churn No continuity of knowledge 600% Turnover in 3 years (one location) Not just Bargaining Unit – Supervisor turnover Too much OT NOW, (new law) need to mark abandoned facilities Resources are not provided when needed	Jeff Carroll Dominick Amparano	Develop a Formal Recognition program for Locate & Mark Communicate Positive Improvements to the Locate & Mark Organization Utilize Internal media to publicize L&M to the rest of the organization Make L&M a great place to work Associated Affordability Initiative #99 – Huddles & Polygons #2797 – Electric Locators #95 – Utilize M&C and LS for Standby #3117 – Negotiate 2-yr Commitment in L&M		
Contracting:	Jeff Carroll	Educate EEI on 811 Ambassador and		

March 2017 AGA Peer Review Feedback and Action Plan

<p>Use Contractors as 811 Ambassadors</p> <p>Build incentives into contract</p> <p>Give contractor a “Turnkey Area”</p> <p>Use Multiple vendors – not just one</p>	<p>Dominick Amparano</p> <p>Andy Wells</p> <p>PG&E Sourcing</p>	<p>enlist their help</p>		
<p>Standby:</p> <p>Employees don’t know what lines are critical</p> <p>Use USA to identify Critical Lines – so the locator won’t have to decide</p> <p>Tighten up Standby Standards</p> <p>Make pictures part of the Standby process – pictures should be part of the permanent record for the facilities</p> <p>Need a Proactive process for follow-up system for an Open Standby</p> <p>Standard & Procedure for Standby</p> <ul style="list-style-type: none"> ○ What is it? ○ Is it clear? ○ Is it communicated and available? 	<p>Jason Gambill</p>	<p>Incorporate all of these items into the new Standby governance structure</p> <p>Modify Standby governance is</p> <p>Affordability initiative #97 in Wave.</p>		
<p>OQ’s need to be independently available and provided – supervisors have a conflict of interest if asked to provide after an incident</p>	<p>Jeff Carroll</p> <p>Dominick Amparano</p> <p>Michael Bradley</p>			
<p>Timeliness of Map Updates</p> <p>As-builts do not get in system quickly</p> <p>Damages due to mapping error have doubled (per our metrics)</p> <p>Need a Standard Procedure to mark newly installed facilities and ensure that construction groups follow it</p>	<p>Jeff Carroll</p> <p>Dominick Amparano</p>	<p>Standard Procedure exists – need to ensure it is communicated and used.</p>		

March 2017 AGA Peer Review Feedback and Action Plan

Training: Lack of knowledge on theory of locating and locating tools Lack of training on Electric locating	Jeff Carroll Dominick Amparano [REDACTED]	Both items have been identified as areas for improvement with next training update		
Routing: Need to look at tools for routing employees more efficiently on locates (Joe Berry, Centerpoint Energy)	Donnie Humphrey	Affordability Initiative #102 in Wave already: Utilize Routing Tools for more Efficient Routing of Locators		
Communication: Silos a problem. Need to collaborate better with other groups (M&C, Damage Prevention, others)	Jeff Carroll Dominick Amparano Andy Wells	Break down silos Emphasize interdependence Provide Rotational Opportunities between groups		
Get L&M Handbook on a Mobile App	Steven Walker PG&E Academy	Ensure availability of next Update via Mobile App.		

EXHIBIT 35

Locate & Mark Special Attention Review (SAR)

Gas T&D Operations

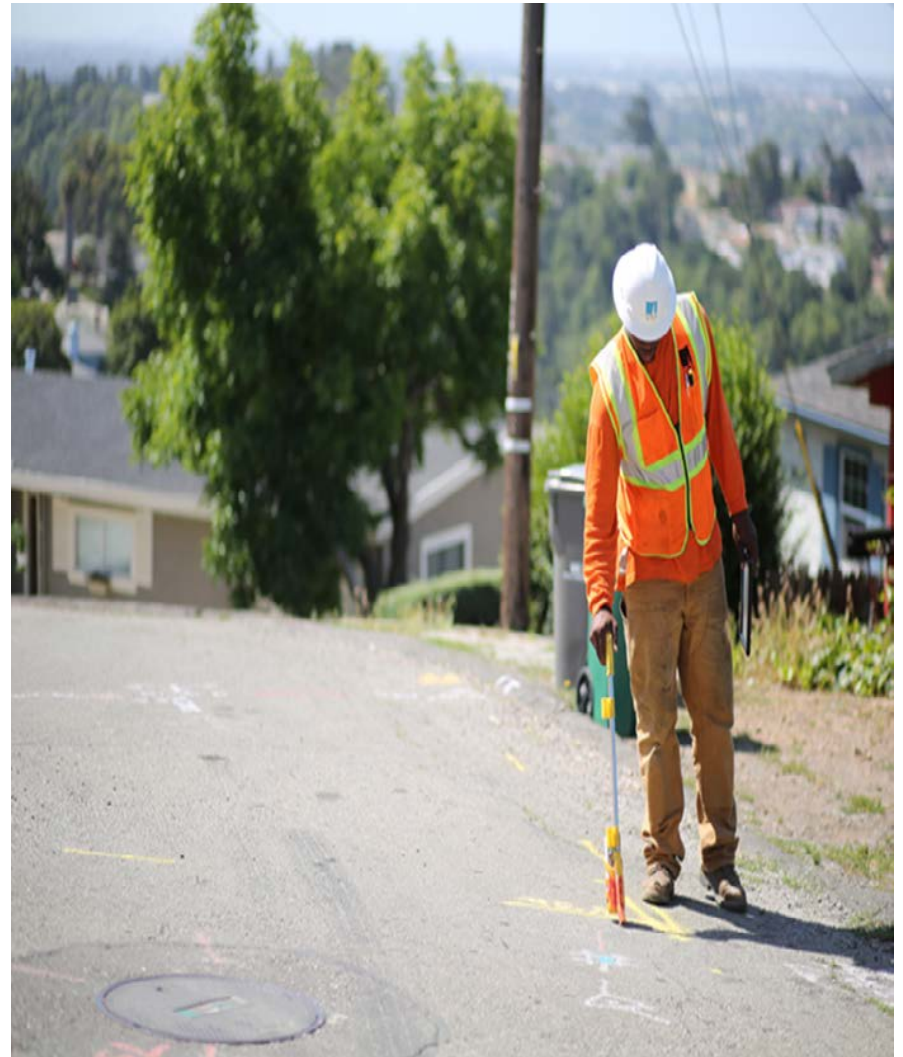


Together, Building
a Better California

INTERNAL

Agenda

- Life Safety
- Introductions
- Project Scope
- GQM Review Results
- IA Audit Results
- AGA Peer Review Feedback
- Top Issues Review
- Next Steps
- Meeting Adjourned





L&M SAR Project

Decision



Informational

Scope of Project

Review L&M processes to identify potential gaps based on 5 year performance results, DQM assessment results, IA audit results and AGA Peer Review feedback. Then identify actions and controls that will improve the quality and accuracy of ticket completion specifically around "late tickets".

Reason

- Tickets are not being processed meeting the required 48 hour timeline
- Tickets are not properly processed in the field
- PG&E is not accurately reflecting the status of tickets
- Resource availability
- Inadequate training
- Require technology enhancements & controls

Next Steps

- Review trends and feedback
- Identify gaps
- Identify controls/improvement opportunities
- Communications to end users
- Develop Plan
- Schedule
- Implementation

Impact (if any)

- Non-compliance
- Increased dig-ins
- Delays to 3rd party excavation
- Financial

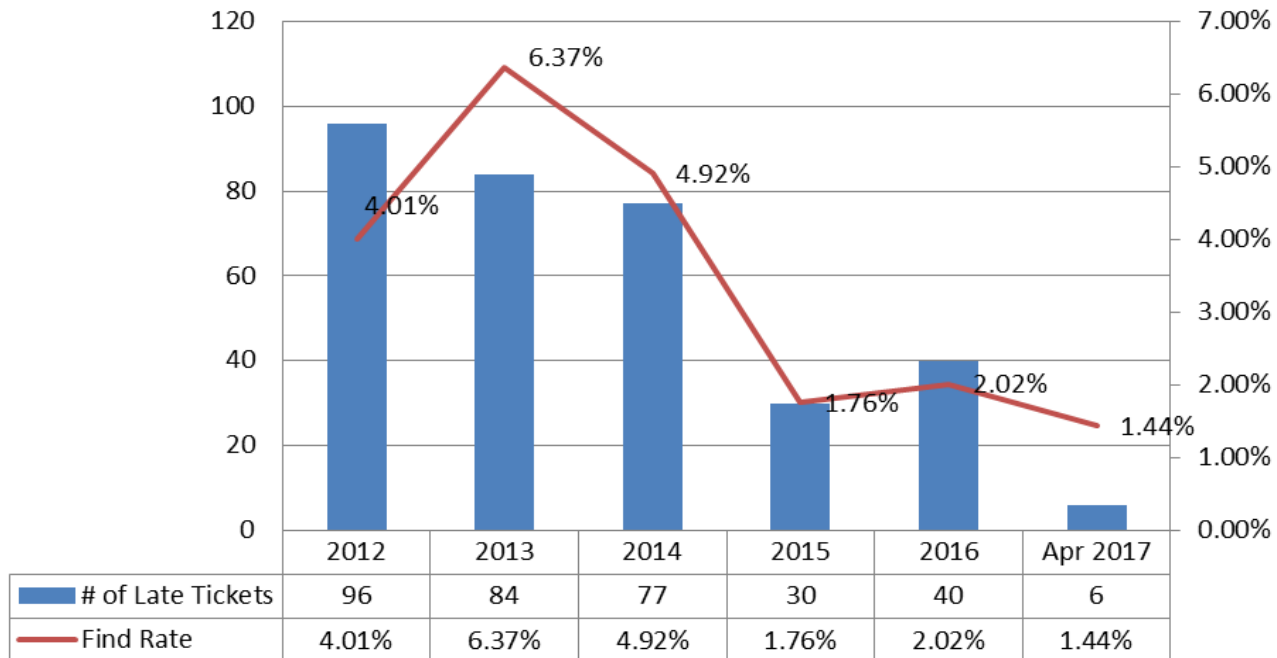
Feedback from Leadership



Quality Management: Field-Late Ticket Results

Year	# of Late Tickets	# of Tickets Reviewed	Find Rate
2012	96	2396	4.01%
2013	84	1319	6.37%
2014	77	1565	4.92%
2015	30	1702	1.76%
2016	40	1984	2.02%
Apr 2017	6	417	1.44%

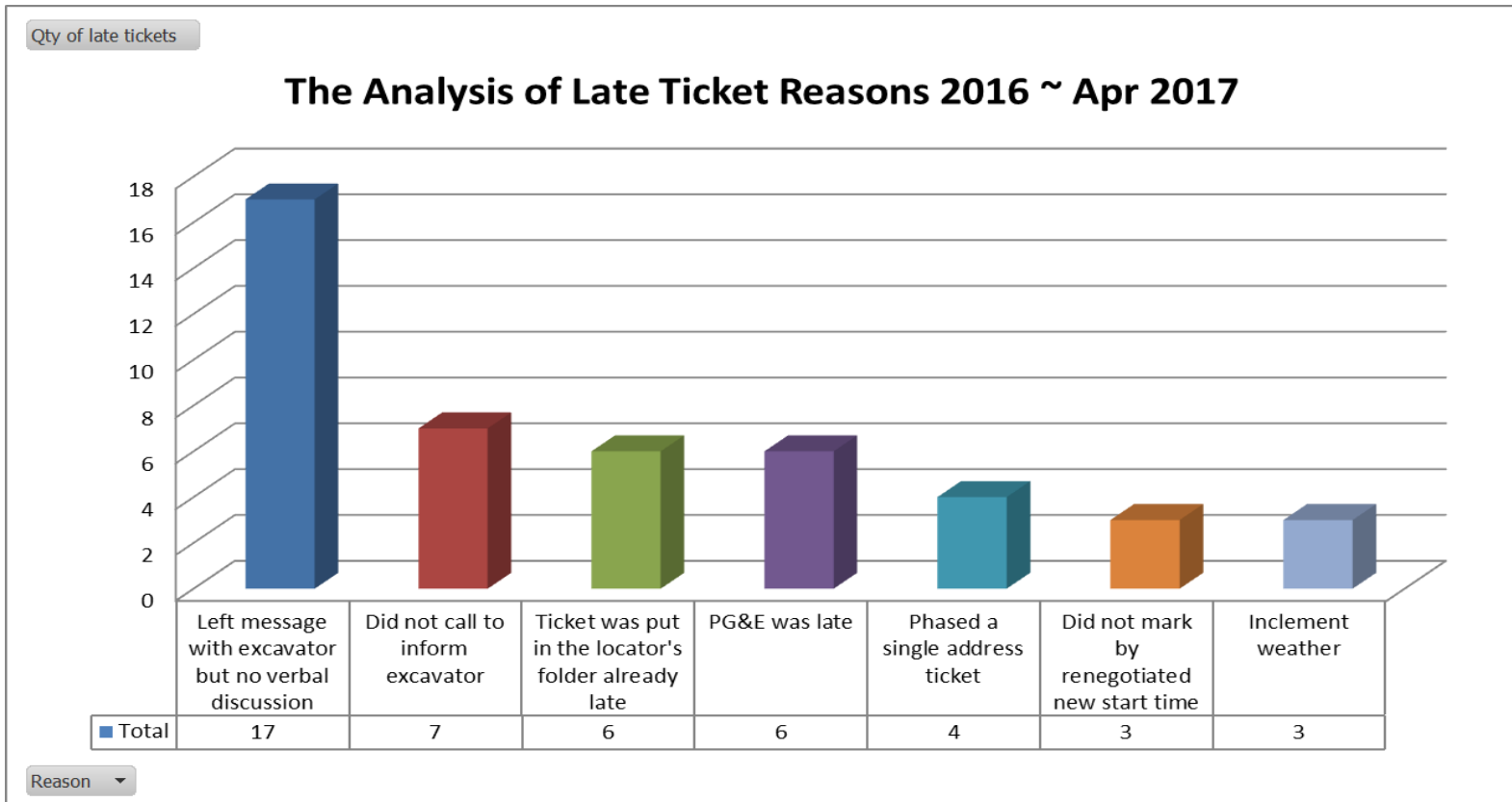
Late Ticket Summary 2012 ~ Apr 2017





Quality Management: Field-Late Ticket Results

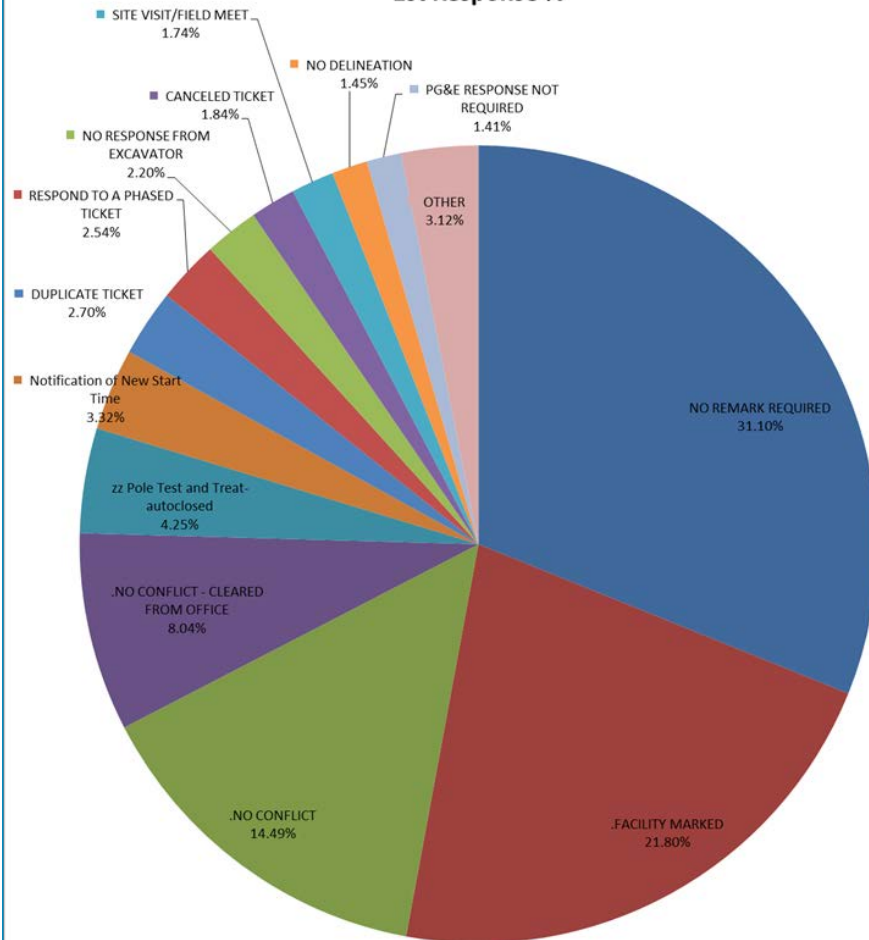
Reason	Qty of late tickets
Left message with excavator but no verbal discussion	17
Did not call to inform excavator	7
Ticket was put in the locator's folder already late	6
PG&E was late	6
Phased a single address ticket	4
Did not mark by renegotiated new start time	3
Inclement weather	3
Grand Total	46



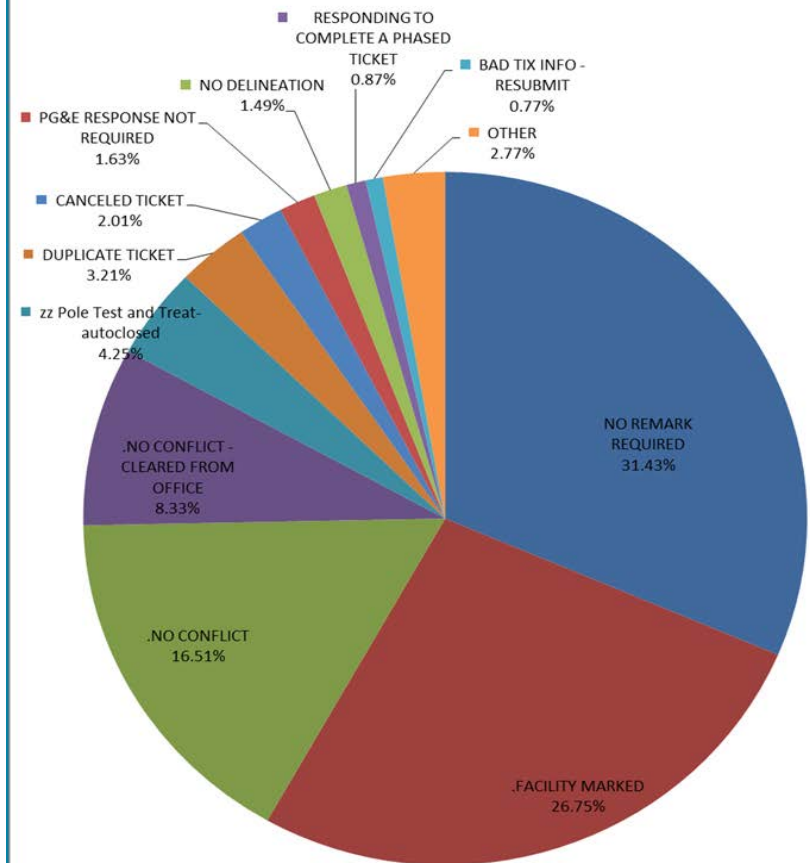


2016 Ticket Responses Summary

1st Response %



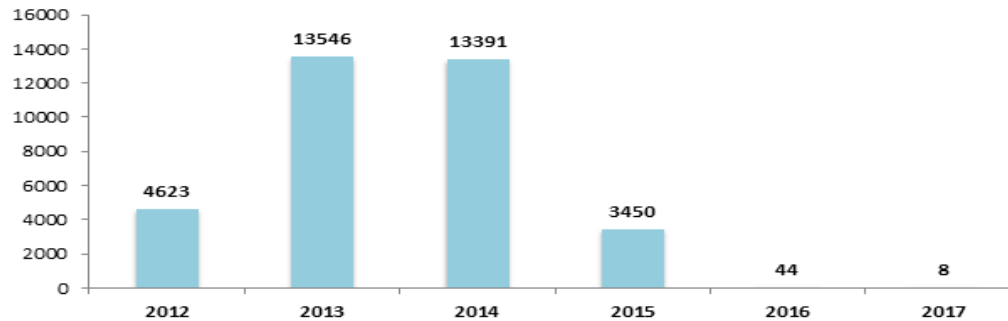
Last Response %



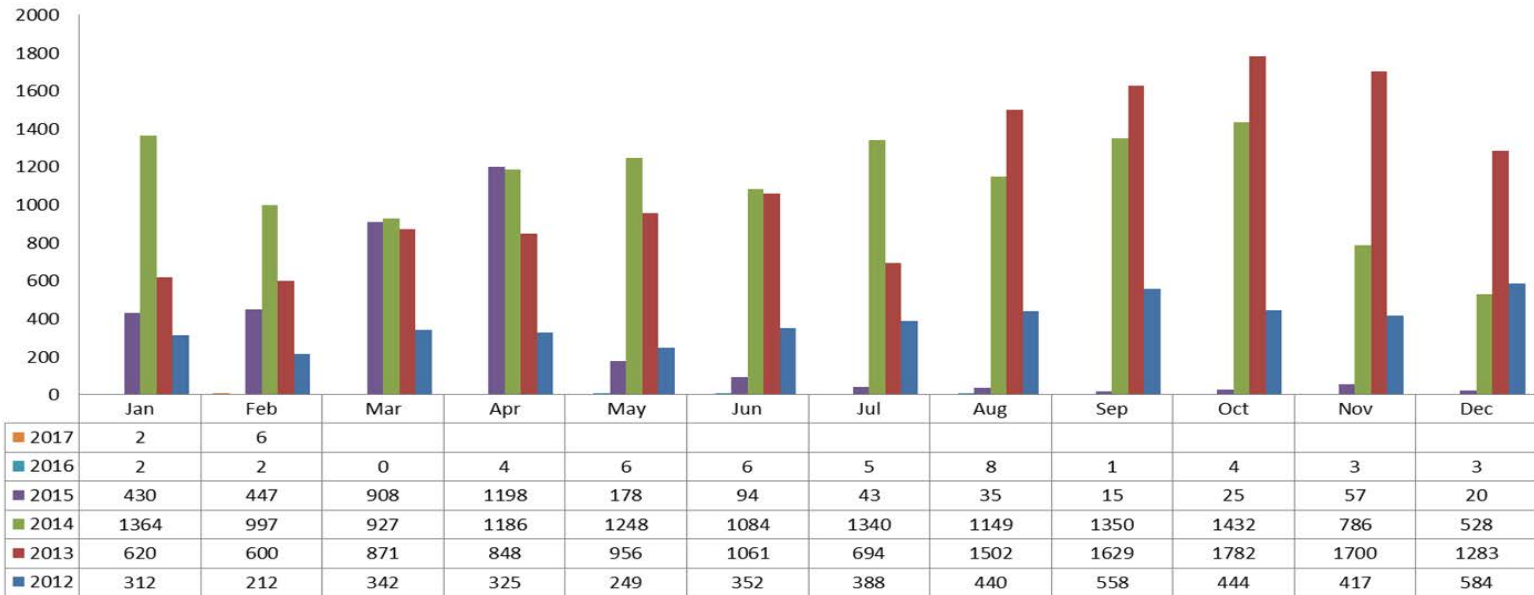


L&M Late Ticket Results

Late Ticket 5 Year Totals



**L&M Late Tickets
5 Year Trend**





Internal Audit Results

February 2012	<u>Issue:</u> In 2009 and 2010, IA and QA noted that recordkeeping processes used to establish the on-time performance of the Utility's mark and locate program had a system glitch, in that the time-clock feature of the software would be halted just by opening the record without performing the work or documenting an agreement with the excavator to postpone the work. As a result, the reports for on-time performance generated using this software showed a 99 percent on-time response for 2010 that cannot be relied upon.
April 2016	<u>Issue:</u> We found that, while Irthnet worked satisfactorily through the early years of L&M automation, it has not incorporated important technological changes and upgrades to control and monitor performance that other modern software programs now use routinely, and this limits its usefulness going forward. For example, Irthnet cannot perform essential functions such as validating a worker's operator qualifications (OQ) at the time of login. Similarly, Irthnet cannot query L&M equipment lists in order to establish whether an instrument being used to enter data into the system is authorized for that task and is currently calibrated. Lastly, work assignments in Irthnet are currently made on a division by division basis, regardless of whether there are sufficient resources within that division to complete all the assigned tickets timely. We noted that in order to level work spikes, other Utility workgroups (e.g., gas service representatives) have implemented dispatching software that facilitates more efficient regional work assignment procedures.



AGA Peer Review Feedback

AGA Peer-to-Peer Review Feedback Results

Discrepancies when it comes to data for the Locate & Mark team, specifically metrics around late tickets.

AGA Peers suggested PG&E review the process and exceptions for late tickets. This may also uncover any resourcing issues that could potentially be driving these behaviors.

We need to better leverage our contracting partners for 811 awareness.

AGA Peers suggested we:

- Use Contractors as 811 Ambassadors
- Build incentives in to contracting agreements
- Give contractor a “Turnkey Area”
- Use Multiple vendors – not just one

The need for OQ confirmation to be independently available for anyone regardless of direct reporting structure.

The Locate & Mark training should undergo two main updates:

- Theory of locating and locating tools
- Electric locating

The need to collaborate better with other groups (M&C, Damage Prevention, others).

The need to ensure compliance on marking newly installed facilities.

AGA Peers suggested we communicate the standard for marking newly installed facilities with field teams to ensure it is properly implemented and we are fully compliant.

Employees do not feel valued. Additionally, L&M is understaffed and have a high rate of turn-over driving up OT.

AGA Peers suggested review of support and recognition for L&M.

Limitations to what employees know about Standby and need to refresh Standby process.

AGA Peers suggested we better identify critical facilities and update our standards and procedures.

As-builts do not get in system quickly and as a result damages due to mapping errors have doubled (per our metrics).

AGA Peers suggested we identify a quicker way to get mapping updates directly into the system.

The need to look at tools for routing employees more efficiently on locates

L&M handbook should be available electronically.

AGA Peers suggested we have it available through mobile app and employee tablets/computers.

One Call has high wait times, lack of 24/7 staffing, and should benchmark w/ other groups across the country.

AGA Peers suggested we work with One Call to identify solutions to these issues.



Top Issues for SAR

Top 6 Issues

1. Discrepancies when it comes to data for the Locate & Mark team, specifically metrics around late tickets.

AGA Peers suggested PG&E review the process and exceptions for late tickets. This may also uncover any resourcing issues that could potentially be driving these behaviors.

PG&E recommendation is to enlist Internal Audit (IA) and Quality Assurance (QA) to assist in assessing the extent of condition.

2. Employees do not feel valued. Additionally, L&M is understaffed and have a high rate of turn-over driving up OT.

AGA Peers suggested review of support and recognition for L&M.

PG&E recommendations:

- Develop L&M employee recognition program (non-monetary)
- Enlist Corporate Communications to help publicize L&M accomplishments through online, Gas Matters, and One PG&E
- Review resource staffing for OT reduction, proper resource allocation, and retention for employees

3. The need to ensure compliance on marking newly installed facilities.

AGA Peers suggested we communicate the standard for marking newly installed facilities with field teams to ensure it is properly implemented and we are fully compliant.

4. Limitations to what employees know about Standby and need to refresh Standby process.

AGA Peers suggested we better identify critical facilities and update our standards and procedures.

PG&E recommendation is to: Develop a standby governance structure where the following items are addressed:

- Solidify definition of critical facilities that require standby
- Refresh standards and procedures related to standby
- Evaluate the use of photos for documentation
- Clearly communicate standards & procedures for standby
- Provide a stand-alone Standby procedure manual similar to the DP Handbook

5. The need to look at tools for routing employees more efficiently on locates

6. As-builts do not get in system quickly and as a result damages due to mapping errors have doubled (per our metrics).

AGA Peers suggested we identify a quicker way to get mapping updates directly into the system.



Issues Update

Issue	Status	Date
<p>1. Discrepancies when it comes to data for the Locate & Mark team, specifically metrics around late tickets.</p> <p>AGA Peers suggested PG&E review the process and exceptions for late tickets. This may also uncover any resourcing issues that could potentially be driving these behaviors.</p> <p>PG&E recommendation is to enlist Internal Audit (IA) and Quality Assurance (QA) to assist in assessing the extent of condition.</p>		
<p>2. Employees do not feel valued. Additionally, L&M is understaffed and have a high rate of turn-over driving up OT.</p> <p>AGA Peers suggested review of support and recognition for L&M.</p> <p>PG&E recommendations:</p> <ul style="list-style-type: none">• Develop L&M employee recognition program (non-monetary)• Enlist Corporate Communications to help publicize L&M accomplishments through online, Gas Matters, and One PG&E• Review resource staffing for OT reduction, proper resource allocation, and retention for employees		



Issues Update

Issue	Status	Date
<p>3. The need to ensure compliance on marking newly installed facilities.</p> <p>AGA Peers suggested we communicate the standard for marking newly installed facilities with field teams to ensure it is properly implemented and we are fully compliant.</p>		
<p>4. Limitations to what employees know about Standby and need to refresh Standby process.</p> <p>AGA Peers suggested we better identify critical facilities and update our standards and procedures.</p> <p>PG&E recommendation is to: Develop a standby governance structure where the following items are addressed:</p> <ul style="list-style-type: none">• Solidify definition of critical facilities that require standby• Refresh standards and procedures related to standby• Evaluate the use of photos for documentation• Clearly communicate standards & procedures for standby• Provide a stand-alone Standby procedure manual similar to the DP Handbook		



Issues Update

Issue	Status	Date
<p>5. The need to look at tools for routing employees more efficiently on locates</p>		
<p>6. As-builts do not get in system quickly and as a result damages due to mapping errors have doubled (per our metrics).</p> <p>AGA Peers suggested we identify a quicker way to get mapping updates directly into the system.</p>		



Next Steps

- What support do you need?
- Timeline to complete?
- Next meeting

EXHIBIT 36

Acting with Integrity

Employee Code of Conduct



Revised August 2013
CDT-1001M
PG&E Public Information

Message from Tony Earley and Chris Johns



Tony Earley



Chris Johns

Whether it's improving safety and reliability, delivering better service for our customers, or earning back their trust and confidence, all of us at PG&E¹ are working hard to ensure that our company is on a solid foundation for the future. Strong performance is critical to our success, but just as important is how we go about achieving results—with honesty and respect, without taking shortcuts, and by operating ethically and with integrity in all that we do.

To help guide and align our behaviors as we make business decisions that impact our daily operations, we rely on our Employee Code of Conduct, which outlines our values and describes our standards for conduct, compliance, and avoiding conflicts of interest. It supports our continuing commitment to honest and ethical conduct and compliance with both the letter and the spirit of all laws, rules, and regulations, and our company's policies, standards, and procedures.

Use our values and this Code as guides whenever you have a question about the right thing to do. For additional guidance, you should talk to your supervisor or Human Resources representative, or call the Compliance and Ethics Helpline at 888-231-2310.

Thank you for your ongoing commitment to delivering safe, reliable, affordable gas and electric service—and doing so ethically and with integrity.

Tony Earley
Chairman, CEO, and President
PG&E Corporation

Chris Johns
President
Pacific Gas and Electric Company

¹ In this Code of Conduct, the term "PG&E" refers to PG&E Corporation and its affiliates and subsidiaries, including Pacific Gas and Electric Company. The conduct, conflict of interest, and compliance standards in this code apply to all employees and officers of PG&E.

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Our Values

Our values guide our behavior, and collectively, our behaviors determine how we are perceived as a company.

We act with integrity and communicate honestly and openly:

- Deal with people and issues openly, directly and respectfully
- Take actions that are consistent with words
- Do the right thing even if unpopular or risky
- Foster a climate of trust and openness between people
- Openly give, invite and receive coaching and feedback



We are passionate about meeting our customers' needs and delivering for our shareholders:

- Demonstrate a passion for understanding and meeting the needs of our customers and shareholders
- Take active responsibility for the quality of service we provide to customers and others
- Are open to change and readily implement better ways of doing things
- Have high performance expectations and a mindset of excellence
- Are innovative in identifying new opportunities and approaches for our customers and ourselves

We are accountable for all of our own actions: these include safety, protecting the environment, and supporting our communities:

- Maintain an absolute commitment to safety for ourselves and others
- Take accountability for actions, decisions and results vs. blaming
- Demonstrate through actions a commitment to the well-being of the community and the environment
- Can be counted on to deliver and meet goals and objectives
- Have a "can do" attitude and bias for action

We work together as a team and are committed to excellence and innovation:

- Take ownership of team goals and are accountable for own part in the process
- Promote teamwork among groups; discourage “we vs. they” thinking
- Listen to input from teammates to reach the best solution
- Hold ourselves and others accountable for results
- Work to create partnerships and to collaborate across functions

We respect each other and celebrate our diversity:

- Treat fellow employees and customers with respect
- Appreciate and value each other and our diverse backgrounds and life experiences
- Actively seek to understand and include others regardless of differences
- Effectively collaborate as a member of a diverse team; seek out diversity of thought



Our Work Decisions

Use the “STAR” method to make work decisions:

Stop, Think, and Act Responsibly.



Apply PG&E's values to all work decisions. Deal fairly with PG&E's customers, suppliers, competitors, and employees. Don't take unlawful advantage of anyone through manipulation, concealment, abuse of privileged information, misrepresentation of material facts, or any other practice involving unfair dealing.

Never knowingly violate laws, regulations, policies, standards, or procedures, even if you think doing so would lower costs, increase earnings, or satisfy a customer. Make yourself aware of the requirements associated with your job. Your supervisor can't order you to take an action that intentionally violates this Code, a law, a regulation, or a company policy, standard, or procedure.

Ensure your decisions and actions do not give the appearance of impropriety. Consider how your actions and decisions will be perceived by others. If you're unsure, ask for other opinions.

Use this decision-making checklist:

- Have I verified the significant facts?
- Is it legal and ethical, and does it meet our internal requirements?
- Will my actions impact public or employee safety?
- Have I made a decision that feels right and is fair and just?
- How would it look in a newspaper or on the Internet?
- Could I explain it to my parents or children?
- How would my decision or actions be judged by others?
- Will I feel comfortable with my decision?
- If I'm not sure of something, have I asked for advice?

Introduction

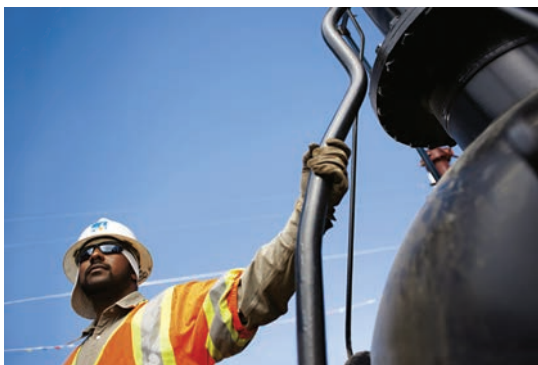
This Code of Conduct establishes a set of standard expectations for employee conduct. You must not engage in any on-duty conduct that would impair your job performance, cause damage to PG&E or public property, jeopardize your safety or the safety of others, or negatively affect PG&E's reputation or image.

If you are off-duty and wearing clothing with a PG&E logo or driving a vehicle with the PG&E logo, be mindful that the public sees you as representing PG&E and your conduct affects the company's reputation and image.

If you have supervisory or lead responsibilities, you have additional responsibility to take these actions:

- Educate your employees on this Code of Conduct and the requirements applicable to your employees' work activities.
- Promote compliance with this Code of Conduct and other relevant policies, standards, and procedures.
- Report suspicions or allegations of employee misconduct in accordance with company procedures.

This Code of Conduct is not intended to supersede any other applicable legal or regulatory requirements, such as those imposed by the Nuclear Regulatory Commission; the Department of Transportation; the National Labor Relations Board; the California Public Utilities Commission; or any other federal, state, or local governmental entity.



Compliance Obligations

You are responsible for knowing and complying with the requirements applicable to your work activities, including those described in this Code and those described in company guidance documents (policies, standards, procedures, bulletins, and manuals).

The Code Connection, located in the Conduct section of PG&E's online **Guidance Document Library**, maps sections of this Code to sources for additional guidance and more detailed information. Please use all of these resources, and good judgment, to guide your actions and decisions.

Adherence To The Code Of Conduct

PG&E strives to demonstrate the highest standards of ethical conduct. The company does not grant waivers to its conduct, conflict of interest and compliance standards.

Some departments may have more stringent requirements than those specified in this Code of Conduct. Check with your supervisor if you have any questions.

Discipline

Failure to comply with this Code or company guidance documents may result in disciplinary action or termination.² Discipline decisions can vary depending on the severity of the misconduct and the employee's disciplinary record, years of service, and job duties. Contact your Human Resources representative for help in determining appropriate discipline.

There are some serious violations of the Code that may result in termination including:

- Improper use of alcohol
- Acts or threats of violence
- Accessing or storing sexually suggestive or explicit materials using company assets, including computers, mobile phones or other electronic devices
- Falsification of company records

² For the purpose of regulatory reporting, the Senior Vice President and General Counsel of PG&E Corporation is responsible for determining if a violation of this Code has occurred.

On safety matters, PG&E takes a behavior-based approach to discipline. Discipline is considered only when an employee acts in a reckless manner, demonstrates a pattern of carelessness or non-compliance, puts the employee, coworkers or the public at risk by intentionally violating the Keys to Life or the Code of Conduct.

Raising Concerns

We are all expected to communicate honestly and openly with supervisors and others in leadership positions and, in good faith, raise concerns—including those about safety, possible misconduct, and violations of laws, regulations or internal requirements.

When concerns are raised, employees in supervisory and other leadership positions are expected to:

- Listen to understand
- Take concerns seriously
- When appropriate, contact internal resources to investigate
- Take any appropriate action in response to investigation findings
- In a timely manner, followup with the employee that raised the concern

Adversely changing an employee's condition of employment for a non-business reason (i.e., "retaliating") is not acceptable. Employees in supervisory and other leadership positions may not retaliate, tolerate retaliation by others, or threaten retaliation.

How to Raise Concerns

If you encounter questionable activities at work, immediately bring them to PG&E's attention by contacting your supervisor. If you're not comfortable raising the issue with your supervisor, go to the next level of management within your organization. You also may contact your Human Resources representative, another appropriate department such as Corporate Security, or the Compliance and Ethics Helpline at 888-231-2310.

If you have a concern about questionable accounting or auditing matters or internal controls (collectively, "accounting complaints"), contact the Compliance and Ethics Helpline. The PG&E Corporation Senior Vice President and General Counsel reviews all such accounting complaints. The Chairs of the

Audit Committees of the Boards of Directors are informed of any material accounting complaints.

The Compliance and Ethics Helpline is available 24 hours a day, 7 days a week. It's a multilingual service that provides a safe place to ask compliance and ethics questions or to communicate concerns.

Helpline calls are handled confidentially to the extent permitted by law, and can be submitted anonymously without fear of retaliation.

PG&E prohibits retaliation against anyone who raises concerns or is involved in an investigation. PG&E investigates all reports of retaliation and takes appropriate action.

Investigations

PG&E takes allegations of misconduct seriously and takes appropriate action. All reported violations of the Code of Conduct are investigated by one or more of the following:

- Local management
- Human Resources
- Corporate Security
- Internal Audit
- Law
- Safety

Never obstruct or fail to cooperate with an investigation.

Employee Conduct Standards

Safety

The safety of the public, employees and contractors is our highest priority. The company's commitment to a safety-first culture is reinforced with our Safety Principles, PG&E's Safety Commitment, Personal Safety Commitment and Keys to Life. These tools were developed in collaboration with PG&E employees, leaders, and union leadership and are intended to provide clarity, support and confidence as employees strive to take personal ownership of safety at PG&E.

Safety Principles

Nothing is more important than public and employee safety.

We must create an environment at PG&E where employees feel free to raise all safety-related issues without peer pressure or fear of reprisal. This includes near hits and unsafe situations of any kind.

We must encourage open and honest communication on safety, so that we identify and eliminate unsafe situations and avoid incidents and injuries.

To enhance safety and prevent future incidents, we will adopt a voluntary non-punitive self-reporting system for unsafe occurrences and hazardous situations.

We acknowledge and reward safe behavior and practices to encourage our employees and to reinforce continuous learning.

PG&E takes a behavior-based approach to discipline. Discipline is considered only when an employee acts in a reckless manner; demonstrates a pattern of carelessness or non-compliance; puts the employee, coworkers or the public at risk by intentionally violating the Keys to Life or the Code of Conduct.

PG&E's Safety Commitment

- We will train, equip and qualify our people to work safely.
- We will design, build, operate and maintain our systems with the highest regard for the safety and well-being of all.
- We will identify and address the underlying causes of incidents to prevent them from recurring.

Personal Safety Commitment

- I will make my personal safety and the safety of my coworkers and the public my highest priority.
- I will make sure I understand how to do the work safely before I start the job.
- I will speak up about safety concerns.
- I will look for safety hazards and intervene to stop unsafe acts.
- I will close out and properly document my work.

Keys to Life

To assure your safety and that of your coworkers and the public:

- Follow safe driving principles
- Use appropriate life-saving personal protective equipment (PPE)
- Follow electrical safety testing and grounding rules
- Follow clearance and energy lock-out rules
- Follow confined space rules
- Follow suspended load rules
- Follow safety at heights rules
- Follow excavation procedures
- Follow hazardous environment procedures

Our expectation is that all employees and contractors of PG&E, individually and as a group, share the responsibility for safety performance at PG&E.

Q: I just saw a downed power line on the ground but I don't work in the group that responds to these issues. Regardless, I know I need to act. What should I do?

A: Stay away, keep others away and immediately call 911 to alert the police and fire departments. Always assume downed electric lines are energized and dangerous. Any contact with wires by branches, pipe or equipment can be fatal. Additionally, report the downed line to PG&E at 800-743-5000.



Ensure that the work environment is safe by identifying and controlling unsafe conditions and occupational and public safety hazards. When operating a vehicle on PG&E business, make sure you have a valid driver's license, comply with the state vehicle code, and operate the vehicle safely at all times. Help and encourage others to work safely, and always place safety first.



Q: I was injured at work, but I don't want to report it because it will negatively affect our department's safety goal. What should I do?

A: Report it to your supervisor and then call the 24/7 Nurse Report Line at 888-449-7787. Each of us is responsible for reporting workplace injuries. The department's desire to achieve the safety goal should not prevent any employee from reporting a workplace injury, and supervisors must never encourage employees to cover up a safety incident.

Immediately report to your supervisor all occupational injuries and illnesses, injuries to non-employees, damage to property resulting from PG&E business activities, and any unsafe conditions that you cannot safely correct. You also can contact the 24-hour Safety Helpline at 415-973-8700.

Fitness for Duty

You are expected to be mentally **and** physically fit for work, to report to work fit for duty, and to remain fit while on duty. While on duty, you may not be under the influence of alcohol or any drugs that impair your ability to perform your work safely and efficiently. Never use, possess, sell, offer to sell, transfer, provide, share, or purchase illegal drugs while on duty or on PG&E property or be in possession or under the influence of medication prescribed for someone other than you.

You also must comply with your specific organization's alcohol and drug standards and any other fitness-for-duty regulations that apply to your job, such as those required by the Nuclear Regulatory Commission and the Department of Transportation.

Tell your supervisor if you're taking prescription drugs or over-the-counter medications that you reasonably believe could affect your ability to work safely or efficiently.



Q: I'm taking prescription medication that could inhibit my ability to work, but I don't want to tell my supervisor because I don't want to reveal my medical condition. Do I have to tell my supervisor what kind of medication I'm taking and why I'm taking it?

A: **No**, you are not required to tell your supervisor the type of medication you are taking or why you are taking it. However, you must inform your supervisor about the effects of a medication that you and your treating physician (who understands your work activities) believe could affect your work performance. You and your supervisor can then determine if you're able to do your work safely and efficiently.

Use of Alcohol

Never report to work under the influence of alcohol. You may not consume alcohol while on duty, including lunches and during overtime meals, or on company property. Exception: officers and directors may authorize, in advance, the consumption of alcohol for special occasions or for certain business meetings as long as such use is limited and does not violate other legal requirements, such as those of the Nuclear Regulatory Commission or the Department of Transportation.

You may not operate a PG&E-owned, leased, or rented vehicle after consuming alcohol, even if consumption is permitted under the exception described above. You may not transport alcohol in a PG&E-owned, leased, or rented vehicle unless you have the prior consent of an officer or a director.

Employees who violate this alcohol conduct standard may be terminated.

Q: When I attend work-related conferences, there are times when I have dinner with other conference attendees after the conference has ended for the day. May I consume alcohol at dinner?

A: You are permitted to consume alcohol if the business portion of the conference is over, you are no longer performing work duties, and you will not be driving a company-owned or rented vehicle. Don't consume alcohol to the extent that you would negatively affect the company's reputation or image. Also, if you are driving a personal vehicle after consuming alcohol, it is your responsibility to make sure that you're fit to operate a vehicle safely and in compliance with the law.



Attendance Reporting

If you are unable to report to work for any reason, you must contact your supervisor before the start of your work period. Also, check with your supervisor to see if your department has additional call-in requirements.

Harassment and Discrimination

At PG&E, we are committed to maintaining a work environment that respects individual differences. Conduct yourself in a professional manner and treat others with respect, fairness, and dignity. PG&E does not tolerate harassment or discrimination, including behavior, comments, jokes, slurs, email messages, pictures, photographs, or other conduct that contributes to an intimidating or offensive environment. This includes using personal electronic devices on company time or in company work environments. Remember others may see what you're doing.

Harassment and discrimination also can occur in the form of bullying, initiation activities, or workplace hazing, which can be humiliating, degrading, or cause emotional or physical harm. No forms of harassment or discrimination are tolerated, regardless of the employee's willingness to participate; such conduct can result in termination.



Q: I am new to the company and work with several employees who have worked for the company for decades. The longer-term employees refer to the younger employees as “kids” or the “youth group.” While I respect all of my coworkers, I’m offended by their comments. Are the comments considered age discrimination? If so, what should I do?

A: Age discrimination under the law applies to people 40 years or older. While the comments would not be considered age discrimination under the law (because they are directed at employees under the age of 40), they are disrespectful and violate the company’s Harassment-Free Workplace Standard. If you feel comfortable, you can respectfully inform your coworkers that you’re offended by their comments and ask them to stop. If you don’t feel comfortable addressing your coworkers directly, you should discuss the issue with your supervisor or your Human Resources representative. You also may call the HR Helpline at 415-973-HELP or call the Compliance and Ethics Helpline at 888-231-2310 to report the inappropriate behavior.

You must comply with applicable federal, state, and local statutes prohibiting conduct that could reasonably be construed as sexual in nature³, or discrimination or harassment based on race, color, religion, age, sex, pregnancy, physical or mental disability, national origin, ancestry, medical condition, veteran status, marital status, sexual orientation, gender identity, gender expression, genetic information, or any other non-job-related factor. This applies to all employment practices, including advancement, disciplinary decisions, benefits, training, and general workplace conduct.

Employees in supervisory and leadership positions are expected to be familiar with PG&E’s standards on harassment and discrimination and with relevant federal, state, and local laws. Supervisors who fail to take action, engage in

³ Examples of conduct that is sexual in nature include: invitations for sexual contact or graphic commentary about an individual’s body; any conduct involving sexually suggestive or obscene objects, pictures, websites, cartoons, posters, clothing, notes, letters, emails, or electronic media such as texting, instant messaging or blogging; sexual gestures; leering; inappropriate touching; assault; or impeding or blocking movement.

harassment, or permit harassment to occur not only expose PG&E to liability, they also expose themselves to personal liability. Employees also can be held personally liable for engaging in harassment.

PG&E has the same expectations for its contractors, consultants, and suppliers when they engage in PG&E-related work. Those expectations are described in PG&E's Contractor, Consultant, and Supplier Code of Conduct.

Workplace Violence

PG&E is committed to maintaining a safe and secure workplace and working environment. Acts or threats of physical violence, intimidation, harassment or coercion, stalking, sabotage, and similar activities are not tolerated. Employees who engage in acts or threats of violence may be terminated.

Q: What should I do if I've been threatened with a potential act of violence at work?

A: If you feel you're in immediate danger, call 911 and then contact your supervisor as well as Corporate Security. During normal business hours, contact your supervisor and Corporate Security at 223-6920 or 415-973-6920. To contact Corporate Security after normal business hours, call 800-691-0410.



Weapons in the Workplace

You may not bring, carry, store, or use any type of weapon on PG&E-owned, leased, or rented property; in a PG&E-owned, leased, or rented vehicle; in a personal vehicle while on PG&E business; or at a job site, whether on or off duty, unless you're explicitly authorized and have a legitimate business reason to do so. A "weapon" is a firearm, ammunition, explosive, or any other device or object that can be construed as a weapon by the Corporate Security Department. Weapons do not include tools that are used for legitimate business purposes.

Gambling in the Workplace

Gambling while at work and using company assets for gambling are prohibited, including during breaks. For purposes of this standard, "gambling" is defined as playing a game for money or property or betting on an uncertain outcome. Prohibited gambling activities include, but are not limited to:

- Games (e.g., cards, dice, and dominoes) played for money or property
- Sports pools such as the Super Bowl, all-star games, the World Series or the NCAA basketball tournament
- Internet gambling

Using company assets, such as computer software to track wagers or copying machines to copy wagers, is not permitted.

Q: Can my workgroup hold a raffle or drawing to raise money for the Campaign for the Community?

A: No. Raffles aren't allowed under California law because PG&E is not a 501(c)(3) charity. However, employees can hold auctions or conduct events with giveaways and door prizes if the event is open to everyone and everyone is eligible for the prizes regardless of whether they've made a charitable gift. Raffles may be conducted only by 501(c)(3) nonprofit agencies and organizations, such as qualified PG&E Employee Resource Groups.

Drawings are permitted only if participants aren't required to purchase a ticket to participate. For example, asking for a suggested donation is acceptable for a drawing as long as the organizers provide an alternate means of entry where participants aren't required to donate. For more information about Campaign for the Community activities or raffles and drawings, contact CommunityRelations@pge.com.

Company Assets

Each of us is responsible for the proper acquisition, use, maintenance, and disposal of company assets (e.g., materials, equipment, tools, real property, information, data, intellectual property and funds) and services. Theft, carelessness, and waste have a negative impact on PG&E's success. Do your part to protect the company's assets and ensure their efficient use.



Do these:

- Acquire assets in compliance with procurement standards and procedures (including delegations of authority), avoiding any real or apparent conflict of interest.
- Use company assets only for legal and ethical activities.
- Protect assets—including information, data and intellectual property—from damage, unauthorized modification or disclosure, waste, loss, misuse, or theft.
- Tell your management about inventions and developments that you create within the scope of your employment or with the use of PG&E resources. These inventions and developments are property of the company.

- Dispose of or transfer assets only with appropriate written approval. PG&E has a legal responsibility to report any donation of an asset to a charitable entity or political organization.
- Follow Affiliate Rules procedures if you intend to share or transfer assets between or among PG&E's affiliates or subsidiaries, including between the corporation and the utility. For more information, see the Affiliate Rules Intranet site or contact the Law Department.

Don't do these:

- Don't misuse or take intangible assets, including intellectual property or nonpublic information about PG&E or others that you obtain in the course of your job. This responsibility continues even when you're no longer employed by PG&E.
- Don't install, rearrange, remove, or tamper with company metering or service equipment without proper approval and authorization.
- Don't divert or steal energy.
- Don't commingle company funds with personal funds.
- Don't take or misuse company property, funds, or service.
- Don't use PG&E assets for private commercial enterprises or personal gain.
- Don't access or store sexually suggestive or explicit material using company assets, including computers, mobile phones or other electronic devices. (If you're unsure if material is acceptable, don't access or store it.) Employees who access or store sexually suggestive or explicit material using company assets may be terminated.

Company assets such as computers, telephones and mobile phones, fax machines, copy machines and conference rooms are intended for PG&E business. PG&E allows limited personal use of these and similar assets as long as such use meets these requirements:

- It is occasional.
- It is incidental to business use.
- It is not for outside employment.
- It does not result in excessive costs.
- It does not interfere with your work responsibilities.
- It is in compliance with laws, regulations, company guidance documents (policies, standards, procedures, bulletins, and manuals, including this code of conduct), and any business restrictions.



Other company assets—including vehicles, construction equipment, tools and similar assets—may be used **only** for PG&E business. Exceptions are permitted in emergency situations or with officer approval.

If you're unsure about what is appropriate use of a company asset, ask your supervisor or call the Compliance and Ethics Helpline at 888-231-2310.

If you would like to allow a charitable entity or political organization to use a company asset—for example, a conference room for a meeting—PG&E may need to report the use as a donation. You need to request approval in advance. Please talk to your supervisor before making arrangements.



Q: My daughter is selling cookie dough for her school fundraiser. Am I allowed to bring the flyer and order sheet to work so my coworkers can purchase the cookie dough?

A: With permission from local management, you may put a flyer and order sheet in the break room or area and distribute the cookie dough during your break or meal period. You're responsible for ensuring that your activities do not interfere with your work or cause a disruption in the workplace.

Computer and System Security

You're responsible for ensuring the security of PG&E by complying with the company's information security standards.

Do these:

- Use only approved, authorized and properly licensed software on PG&E computer systems.
- Connect only PG&E-authorized computers and equipment to PG&E networks.

Don't do these:

- Don't share passwords or other access credentials with any other person or group, and don't use another person's password.
- Don't attempt to degrade the performance of PG&E systems or deprive access to authorized users.
- Don't attempt to circumvent or attack security controls on a computer system or network.
- Don't access or download sexually suggestive or explicit, gaming, file sharing, or other inappropriate files or websites.
- Don't store inappropriate or pirated content on company equipment.

Immediately report any suspected or actual breach of PG&E computer system or network security to Information Security's 24-hour emergency hotline at [REDACTED] and help in the investigation as needed.

Social Media

These days, the reach of social media is wider than ever. While social media can help PG&E build and strengthen relationships with our customers, employees and community members, it also has the potential to negatively impact the public's perception of PG&E or your personal or professional reputation.



When we refer to social media activity, it includes:

- all types of posts and other communications on the Internet;
- posts on social networking sites such as Facebook, Twitter, Yammer and LinkedIn;
- blogs and other online journals and diaries;
- bulletin boards and chat rooms; and
- posts of video or audio on media-sharing sites, such as YouTube or Flickr.

Social media activity also includes permitting, or failing to remove, posts by others where the employee can control the content of posts, such as on a personal page or blog.

PG&E respects your right to participate in social media and understands that your time outside of work is your own. PG&E also values its established brand reputation and goodwill relationships, which are important corporate assets. Whether or not you consider yourself a Tweeter, Yammerer, Blogger or Facebooker, it's important to understand how to use social media appropriately and effectively.

If you engage in social media activity that identifies you as a PG&E employee, or your work at PG&E, even if done off premises and while off-duty, you could affect PG&E's reputation.

Do these:

- Be open and honest about who you are (no false names or pseudonyms), especially if it could be reasonably construed that you're speaking on behalf of PG&E.
- Recognize that your social media activity is subject to relevant PG&E policies, standards, and procedures. This includes but is not limited to, this Code of Conduct as well as requirements for protecting confidential information.
- Feel free to visit or participate on PG&E-sponsored social media sites. All participation on these sites is purely voluntary.
- Consider participating in PG&E internally sponsored social media sites such as Yammer.
- Use your personal email account (not your PG&E email) when setting up or participating in external social media channels. Exceptions can occur if you've received prior authorization from External Communications.

- Use your own personal device when making personal references or recommendations on social media outlets such as LinkedIn or Yelp. Personal references and recommendations on social media sites should be done as an individual and not on behalf of the company.
- Adhere to copyright and fair use laws.

Don't do these:

- Don't represent in any social media content that you are authorized to speak on behalf of PG&E, or that PG&E has reviewed and approved your content, without the prior written approval of External Communications.
- Don't post content about PG&E, management, coworkers, shareholders, customers, vendors, affiliates or competitors that is vulgar, obscene, threatening or a violation of PG&E's conduct standards including those addressing discrimination, harassment and workplace violence.
- Don't make business commitments for PG&E on social media platforms. Information generated on social media is considered temporary and not legally binding.
- Don't post photographs or video of the nonpublic areas of PG&E's premises, or of PG&E's processes, operations or products without PG&E's prior written approval.
- Don't use PG&E's logo, trademark or proprietary graphics in a way that suggests that you are representing PG&E.

PG&E does not apply these requirements in a manner that improperly interferes with or limits employees' rights under the National Labor Relations Act. Legally protected social media discussions include discussions about wages, hours, and working conditions; the right to self-organize, form, join, or assist labor organizations, to bargain collectively through representatives of your choosing regarding your wages, hours and working conditions; or to engage in other concerted activities about the same or other mutual aid or protection; or to refrain from engaging in such activities.

If you have questions, please email the social media mailbox (socialmedia@pge.com) or call the Compliance and Ethics Helpline at 888-231-2310.



Q: Can I state on a social networking site that I work for PG&E?

A: Yes. However, you should never state that you are speaking on behalf of PG&E unless you're an authorized representative of the company.

Q: Can I post pictures of PG&E employees at a volunteer event on Yammer?

A: Yes. You can post pictures of PG&E employees on Yammer. However, you cannot post the same photo on Facebook or another external social media site without the approval of External Communications and the permission of the individuals photographed.



Company Records

When we do our work, we generate, receive, and use, company information. Information is created every day, whether computerized or on paper. Each employee must manage PG&E information carefully and responsibly, and be accountable for identifying records from information. Company records must be stored, managed and disposed of in accordance with specific Company procedures. Examples of company records include:

- Maintenance records and inspection documents
- As-built drawings
- Personnel documents
- Reports to government agencies or other public communications
- Workers' compensation or other benefit-related information such as dependent eligibility
- Financial reports

To keep our system safe and reliable, we must always complete and document our work. Accurate records are an essential ingredient of PG&E's operations. When working with company information and records:

- Never misstate facts or omit material information
- Never hide, alter, falsify or disguise the true nature of a business transaction or commitment
- Never forge endorsements, approvals or authorizing signatures
- Never process, enter into a system or approve a record or disclosure that you know is false or misleading

Report any issues to your supervisor or other appropriate person.

Records Retention

PG&E has operational, regulatory, and legal requirements to retain certain records for prescribed periods of time. The Records Management Policy and Standard identifies electronic records as the official record, and you are expected to consistently retain records for the appropriate period of time and in an approved system of record.

There may be additional retention requirements for records you possess that relate to a topic of investigation or litigation, which may suspend the disposing of records. When this happens, the Law Department will notify you when records are placed on “legal hold.”

Also, as a condition of forming the holding company, the California Public Utilities Commission requires employees to retain certain correspondence and documents involving communication between the holding company and the utility per CPUC affiliate rules. Emails between the holding company and the utility are retained and archived automatically. Hard-copy documents, not transmitted by email, must also be retained.

If you need help with managing records, ask your supervisor, your designated Line of Business Records Coordinator, or the PG&E Records Management Department at Records_support@pge.com.

Confidential and Customer-Specific Information

You may have access to confidential proprietary nonpublic information on the job. You may work with information that contains personally identifiable material about PG&E, employees or customers, such as their names, addresses, phone numbers, or Social Security numbers. Maintain the confidentiality of information entrusted to you by PG&E and our customers, except when disclosure is properly authorized or legally mandated.



When dealing with confidential information:

- Never view it for a non-business reason,
- Never use it for personal gain or advantage, and
- Never share it without appropriate approval.

If you are required to share confidential information, make sure that it is appropriately protected and secure. This obligation continues even after you are no longer employed by PG&E. Revealing nonpublic information that you obtained in the course of your employment with PG&E is a violation of this Code of Conduct and may be illegal. For more information, refer to the non-disclosure agreement that all employees sign prior to working for PG&E.

Confidential information includes all nonpublic information that is valuable to PG&E or harmful to PG&E or our customers if disclosed. There are four types of confidential proprietary nonpublic information.

Customer information includes any information about a specific customer that can be used to personally identify a customer, including such things as name, address, Social Security number, phone numbers, contact names and billing data such as balance owed or energy usage.

- Never disclose any information about a customer to a third party without the customer's documented approval unless:
 - You are legally required to do so (for example, under a court-issued subpoena); or
 - The information is necessary to be disclosed for PG&E to provide utility services (for example, the information is for a PG&E vendor to provide customer billing or energy management services).
- Never change, update, or manipulate your own utility account or the account of a family member, friend or coworker.
- If you receive a request for customer information, follow PG&E's Privacy Policy and your organization's procedures for handling it. For more information, please visit: www.pge.com/about/company/privacy/customer/

Employee information includes information about a specific employee, including such things as name, home address, Social Security number, personal phone numbers, benefits, images, photographs and performance evaluations.

- Never disclose such information to another employee, shareholder, or a third party without appropriate approval.
- Forward requests for employee information and references to your human resources representative.

Intellectual property and trade secrets are developed or collected by PG&E from a variety of legitimate sources. PG&E uses these assets and information to achieve its business goals or to evaluate the merits of its own products, services and marketing methods, and to develop strategic plans as well as products and services. Information and materials related to competitive strategy, trading, investment, costs, and financing methods are examples of this type of confidential information.

- If you observe intellectual property obtained accidentally or unethically, keep it confidential and immediately review it with your supervisor and the Law Department to determine the right course of action.
- It's against the law and this Code of Conduct to develop or gather intellectual property by trespassing, burglary, wiretapping, theft, accessing unprotected networks or other illegal activity.
- Don't disclose PG&E confidential intellectual property to parties outside PG&E unless you obtain approval from your director or officer. Also, you must obtain a signed non-disclosure agreement from the third-party.

Supplier information includes pricing and contract information.

- Never disclose supplier information to a third party without appropriate approval and a legitimate business reason.
- You also must comply with any nondisclosure agreement or the confidentiality provisions of an applicable supplier/vendor agreement.

Please exercise caution when using or handling proprietary information. If you have questions, contact the Law Department.



Q: I have access to nonpublic information as a part of my regular job duties. I understand that I generally can't share nonpublic information with people outside of the company or outside of my department. However, can I share this information with a coworker inside my department who does not have access to the same information?

A: You may share the information with your coworker only if he or she has a business need to know. Talk with your supervisor before sharing confidential information with an employee who does not normally have access to such information.



Q: Does this Code limit my ability to discuss wages, hours, and working conditions?

A: **No.** PG&E doesn't apply these requirements in a manner that improperly interferes with or limits employees' rights under the National Labor Relations Act. For example, your wage statements and your written job description (if any) constitute nonpublic information, but they may be shared by you in connection with a discussion about your wages, hours and/or working conditions. If you have a question or concern about whether disclosure of nonpublic information is permissible, you may without fear of reprisal ask your supervisor or your local human resources representative about whether such nonpublic information may be disclosed.

Supplier Code of Conduct

PG&E suppliers, vendors, contractors and consultants (collectively, "suppliers") are subject to PG&E's Supplier Code of Conduct. If you interact with PG&E suppliers, please read the Supplier Code of Conduct.

PG&E's Supplier Code of Conduct contains principles and conduct standards that suppliers as well as their employees, subcontractors, sub-suppliers, and sub-vendors must adhere to as they provide goods and services to PG&E.

Inappropriate supplier conduct could potentially violate laws, regulations or policies and might reflect poorly on PG&E. Failure to comply with the Supplier Code of Conduct could result in termination of the supplier's assignment and/or contract. If you become aware of potentially inappropriate supplier conduct, please contact the Compliance and Ethics Helpline at 888-231-2310.

Employee Privacy

PG&E retains the right to monitor its assets and work environments in compliance with applicable federal, state, and local laws and this Code of Conduct. It monitors to promote safety, prevent criminal activity, investigate alleged misconduct and security violations, manage information systems, or for other business reasons.

Even though limited personal use of company assets is permitted, you should have no expectation of privacy when you use a PG&E work space, computer, voicemail, or system to create, access, transmit, or store information. Such information is accessible to PG&E even if it is password-protected, deleted by the user, or in a locked area. Limited personal use of company assets must also comply with this Code of Conduct.

Business Expenses

Use PG&E funds for business expenses only, whether paying by credit card, cash or another method. Use good judgment to keep business expenses (for example, meal expenses) reasonable. You're expected to comply with PG&E's requirements for incurring and reporting business expenses. Report all expenses promptly and accurately via the travel and expense system.

Don't do these:

- Don't make unauthorized or personal purchases on company credit cards, through purchase orders or by other means.
- Don't incur unreasonable expenses on behalf of the company.

Corporate Name, Logo, and Colors

PG&E Corporation owns the trademarks that incorporate "PG&E" and the holding company and utility corporate names. You may use the corporate names and



Q: I am traveling on a business trip with my spouse. When we go out to dinner, can I put my spouse's meal on my corporate credit card?

A: No. Company credit cards may be used for employee business expenses only. An exception exists in the rare event that your spouse's participation in the business event is necessary and/or appropriate and is pre-approved by an officer through a pre-trip authorization (PTA).

logos, the PG&E logo, and PG&E colors in presentations to public audiences in compliance with the standards issued by Corporate Affairs. For additional guidance, see the Corporate Identity Brand Guidelines website.

Watch for the use of the PG&E graphic icon or the corporate name, logo or colors by those not authorized to represent PG&E, such as contractors. Also, energy affiliate companies must include disclaimers of specific wording and size when using the icon, corporate name, or logo. If you have any questions, please contact Corporate Affairs.



Publishing Articles

If you author an article or other published material about your employment activities at PG&E or a service that PG&E provides, and you plan to identify yourself as a PG&E employee, get approval from your supervisor and Corporate Affairs before publication.

Endorsements

Subject to exceptions approved by Corporate Affairs, PG&E does not endorse products or services or the firms or individuals who supply them, and favoritism must not be implied by testimonials or endorsements of PG&E's use of any materials, supplies, equipment, or service or by the use of its name in advertising, publicity, articles, or catalogs. If you have questions about endorsements, please call the Law Department or the Compliance and Ethics Helpline.

Implied or express endorsements of, or opposition to, political candidates, ballot measures, community organizations, or other entities on behalf of PG&E must be approved in advance by Corporate Affairs. Please contact Corporate Affairs for more information.

If you want to provide a testimonial or endorse an event, product, or service, do not use your job title or affiliation without approval from your supervisor and Corporate Affairs.

Community Activities

PG&E is committed to supporting the communities we serve in various ways, such as encouraging our employees to volunteer and providing shareholder-funded financial contributions to community organizations.

PG&E does not support organizations that, in their bylaws, policies, or practices, discriminate on the basis of race, color, religion, age, sex, national origin, ancestry, physical or mental disability, medical condition, veteran status, marital status, pregnancy, sexual orientation, gender identity, gender expression, genetic information, or any basis prohibited by applicable law.



It may constitute implied or express support if you use your job title or affiliation, or wear the PG&E logo while participating in a community activity. If you're unsure if this is appropriate, please check with your supervisor or Corporate Affairs before participating.

News Media Inquiries

Immediately refer any media inquiries to the media line at 415-973-5930. A Corporate Affairs representative is available 24 hours a day, seven days a week to respond to the news media.

If the media asks to speak with a PG&E subject matter expert, Corporate Affairs coordinates on behalf of PG&E. Under no circumstances are contractors permitted to represent themselves to the media as speaking on behalf of PG&E unless they are expressly authorized by Corporate Affairs.

In the case of an emergency, reporters arriving on the scene will try to gather information from any available source. If forced by the situation to respond to reporters, do not attempt to improvise an answer, do not speculate, and do not downplay the seriousness of the situation. Direct all reporter inquiries to company media relations personnel and, if they are not on the scene, then to the 24-hour media line 415-973-5930. Let them know that your priorities are to focus on safety for our customers and on completing the work.

Employment Inquiries

You may not provide an employment reference for a former employee on behalf of the company. However, Work Number®, PG&E's third-party vendor handling all employee verification of employment and income requests, will confirm the time period that a former employee worked for the company and positions held. Work Number® can be used anytime and is available 24 hours a day, 7 days a week by calling 800-367-5690 or online at www.theworknumber.com. If you wish, you may provide a personal reference for the former employee, provided you do not use company resources to do so.

Conflict of Interest Standards

You're expected to do your job for the benefit of PG&E, its customers, and its shareholders. You must not use company property, company information or your position for personal gain.

A conflict of interest occurs when your private interests interfere in any way, or even appear to interfere, with the interests of PG&E as a whole. A conflict of interest can arise if you take actions or have interests that may make it difficult for you to perform your company work objectively and effectively. Conflicts of interest also arise when an employee or a member of his or her family receives improper benefits (e.g., a loan or guarantee of work) as a result of the employee's position in the company.

Disclose any potential conflict of interest to your supervisor, and ensure that the appropriate decision-maker concurs in writing if you're allowed to remain in a situation that could be perceived as a conflict of interest.

Influencing Business Decisions for Personal Gain

You must avoid any conflict between your interests and those of PG&E. You also must avoid any appearance of conflict of interest, except as permitted by this Code of Conduct.

A potential or actual conflict of interest exists if you participate in or attempt to influence a decision or transaction that could materially affect the value of a financial interest held by you, a member of your family, or another person with whom you have a close relationship. A "financial interest" is (a) any investment in a privately held business or (b) an investment equal to one month of your base salary or more in the publicly traded stock of another company that is conducting or seeking to conduct business with PG&E. (Do not include indirect holdings of stock via mutual funds when considering this threshold.)

If you have a potential conflict of interest, take the following steps:

1. Disclose the financial interest and potential conflict to your supervisor in writing.
2. Based on the criteria described above, your supervisor must determine if there is a conflict of interest. Document the decision in writing and obtain the written concurrence of your supervisor and any other appropriate decision-maker.
3. If there is a conflict of interest, your supervisor must exclude you from participating in the decision or transaction, or adopt other effective measures that would prevent the conflict.

Favored Treatment

Do not use your position to obtain or provide favored treatment for yourself or others with whom you have a personal relationship. This can include any business matter, including hiring or promoting employees, selecting contractors or vendors, or participating in nonpublic investment opportunities such as Initial Public Offerings (IPOs). (Refer to the PG&E Corporation "Nepotism Policy" for restrictions concerning close relatives.)

You also may not take for your own benefit any PG&E business opportunity that is discovered through the use of company property, information or your position.

Close Personal Relationships

Any close personal relationship, especially a romantic one, should never exist between a supervisor and an employee within that supervisor's chain of command. There are also substantial risks even in consenting romantic relationships between employees outside this chain of command or between employees with comparable rankings.

Close personal relationships can interfere with an employee's independent judgment, create employee morale issues, and lead to claims of conflict of interest or even sexual harassment. Such relationships also can negatively impact or disrupt the workplace and create the appearance of impropriety. Even if a relationship does not violate our conflict of interest standards or anti-nepotism policy, charges of sexual harassment or other inappropriate conduct may develop. It is the company's expectation that employees will take personal responsibility for adhering to all company policies and standards, and ensuring that they do not engage in relationships that disrupt or negatively impact the workplace.

To avoid these problems and to foster a positive team environment, you must promptly report to your Human Resources representative any close personal relationship that results, or could result, in a conflict with a policy or standard. After reviewing the facts, the Company will take appropriate action.

Q: I am dating a coworker who occasionally serves as the acting supervisor for my group. Do we have to bring this to the attention of our supervisor or Human Resources?

A: Yes. This situation creates a conflict of interest in your group. Even if you and your colleague are currently equals in the same group, you should advise your supervisor of the relationship so that your supervisor can prevent an inappropriate reporting relationship.



Accepting or Giving Gifts

Accepting or giving a gift in a business setting can create a sense of obligation or the appearance of obligation. A gift can be anything of value, including such items as a ticket to a sporting event or play, a non-business meal, a bottle of wine, a coffee cup, a free service, a special discount, or an all-expenses-paid trip to a conference or trade show.

Note: cash and cash equivalents (e.g., gift cards) are not “gifts”; they are compensation and are taxable. You may not accept cash or a cash equivalent as a gift. Also, you may not accept a payment or an item of value that could be construed as a bribe, or become party to the payment of money or an item of value for the purpose of bribery.



PG&E-funded gifts between employees must be made in accordance with PG&E's Rewards and Recognition program. All other gifts must be in compliance with the requirements listed below.

Accepting Gifts

You, or a member of your immediate family, may not accept a gift from a contractor, vendor, consultant, or similar business contact doing business with or seeking to do business with PG&E unless **all six of the following conditions are met:**

- The value of the item must be less than \$100, and the value of all gifts from one business contact during a 12-month period **must not exceed \$250**. A gift that exceeds either value must be approved by your officer. Any such gift to an officer must be approved by the officer's supervisor.
- The item is customary and does not create any appearance of impropriety.
- The item imposes no sense of obligation on the receiver.
- The item results in no special or favored treatment.
- The item could not be considered extravagant, excessive, or too frequent considering all of the circumstances, including your ability to reciprocate at company expense.
- The item is not concealed in any way.

If circumstances make it appropriate to accept a gift that exceeds either value threshold, the officer granting **approval** must retain the following documentation:

- The identities of the giver and recipient of the gift
- The date the officer approved the gift
- A brief description of the gift
- The business reason for the gift
- An estimated value of the gift

A gift is no longer considered a gift if within 30 days, the recipient either (1) returns the gift to the giver or (2) reimburses the value of the gift to the giver from personal funds.

“Customary business meals” are not considered gifts. These are routine meals, similar in cost to your own meals when you entertain clients.

In addition to the restrictions on gifts, you and members of your family must never accept a loan, guarantee, service, or payment from a contractor, vendor, consultant, or similar business contact under terms that aren’t available to the general public.

Q: Can I accept a \$10 gift card from a satisfied customer?

A: No. Cash and cash equivalents—such as gift cards—are not gifts. They’re considered compensation and are taxable. Employees can’t accept cash or a cash equivalent as a gift. Employees may accept gift cards awarded to them through the company’s Reward and Recognition program.



Giving Gifts

You may not give a gift funded by PG&E unless **all six of the following conditions are met:**

- The value of the item must be less than \$100 and the value of all gifts to one business contact during a 12-month period **must not exceed \$250**. A gift that exceeds either value must be approved by your officer.
- The item is customary and does not create any appearance of impropriety.
- The item imposes no sense of obligation on the receiver.
- The item results in no special or favored treatment.
- The item could not be considered extravagant, excessive, or too frequent considering all of the circumstances, including the recipient’s ability to reciprocate.
- The item is not concealed in any way.

If circumstances make it appropriate to give a gift that exceeds the employee’s authority to approve, the officer granting **approval** must retain the following documentation:

- The identities of the giver and recipient of the gift
- The date the officer approved the gift
- A brief description of the gift

- The business reason for the gift
- An estimated value of the gift

“Customary business meals” generally are not considered gifts. These are routine meals of reasonable cost provided for business contacts. However, a business meal for an elected or appointed governmental official may be considered a gift under the laws governing the conduct of public officials. Before making any gift to a federal, state, or local government official or employee, confirm its value and contact Government Relations or email govrelpra@exchange.pge.com to ensure that the gift is in compliance with applicable gift limits and restrictions.

Special rules apply in certain gift-giving situations:

- All gifts to nonprofit entities, including in-kind gifts, must be approved by Community Relations.
- A gift, including an “in-kind” gift, a contribution, a donation, entertainment, or another courtesy to a political candidate, committee, governmental entity, public official, or elected or governmental figure must be approved in advance by Government Relations.
- An “in-kind” gift (e.g., used construction or office equipment) is also considered a disposal of a company asset. For more information, see the Company Assets section of this Code.
- Federal law governs gift giving when working with a foreign official, either inside or outside the United States. For more information, see the Foreign Corrupt Practices Act section of this Code.

Loans, Advances, or Guarantees of Obligations

PG&E prohibits loans or advances of corporate funds to its employees, officers or Board members, and does not guarantee their obligations. PG&E also prohibits loans, advances, or guarantees for friends and family members. This standard does not apply to employees participating in programs that are broadly available, including, but not limited to, relocation benefits, the cashless exercise of stock options, education reimbursements, 401(k) loans, the corporate credit card program and expense advances.

Serving in Federal, State or Local Government

If you previously served in, or were employed by, the federal, state, or local government, the law may restrict your interaction with government agencies on behalf of PG&E for a period of time. Consult with your prior government entity to ensure that you comply with any restrictions, and notify Government Relations at GovRelCompliance@pge.com of those restrictions.

If you seek election or appointment to a public office while employed by PG&E, contact Government Relations to discuss potential conflicts of interest and how those issues should be addressed.

If you are elected or appointed to a public office while employed by PG&E, immediately notify Government Relations, and recuse yourself from participation in any official issue or decision that could create or appear to create a conflict of interest. Seek advice from both the government agency's legal counsel and from the PG&E Law Department and Government Relations. You or PG&E, or both, may be required to disclose or report information about your employment with PG&E to the government entity.

Outside Employment

You are not permitted to engage in outside employment activities that compete with products or services offered by PG&E. If you are represented by a bargaining unit, this restriction applies only to products or services offered by Pacific Gas and Electric Company. If you are not represented by a bargaining unit, this restriction applies to products and services offered by PG&E Corporation and its affiliates and subsidiaries, including Pacific Gas and Electric Company.

The types of activities to avoid include the planning, design, manufacture, sale, installation, or maintenance of any commodity, equipment, or service that PG&E currently provides or has known plans to provide.

Also, even if these requirements are met, take the following precautions to avoid a conflict of interest:

- Don't participate in an outside employment activity or business venture that could have an adverse effect on your ability to perform your duties for PG&E.
- Don't use company time or assets for your own business or other job.
- Don't solicit work from PG&E for your business or other employer based on inside knowledge of the company or contacts, and don't solicit PG&E employees, vendors, or customers while at work. Local management has discretion to allow passive solicitation, such as a poster on a bulletin board or a catalog on a lunchroom table.



Q: I am a licensed electrician and work in the Electric Operations. Occasionally, I'm asked by family members, friends and customers to replace the electrical panels inside their homes. May I do the work?

A: Since the company does not replace electrical panels inside customers' homes, you may perform the work as long as you follow the guidance provided in this section of the Code.

- If, during non-business hours, you solicit vendors or customers with whom you interact for PG&E, you must ensure that your solicitation does not create an appearance of impropriety or in any way imply that the vendor's or customer's dealings with PG&E will be affected by the response to your solicitation.
- Don't attempt to obtain personal advantage or benefit due to your association with PG&E or by using the company name.
- If the outside employment activity is with a government entity, notify Corporate Affairs.

If you are, or plan to be, engaged in outside employment activities, and you are unsure if they might be in conflict with this Code, discuss them with your supervisor and document your joint conclusion. If you are a supervisor, and your employee comes to you with questions about outside employment, notify your director of the employment activities that your employee will be involved in.



Compliance Standards

PG&E is responsible for complying with thousands of compliance requirements issued by nearly 200 governmental bodies. Each of us is responsible for knowing and complying with the laws and regulations applicable to our work. Promptly report any violations of legal or regulatory requirements or PG&E policies, standards or procedures to your supervisor, any other involved department, or the Compliance and Ethics Helpline. PG&E does not allow retaliation for any such reports made in good faith.

Following are descriptions of just a few of the compliance requirements that have widespread applicability at PG&E.

Federal Securities Laws

As companies with publicly traded securities, PG&E Corporation and Pacific Gas and Electric Company must comply with federal laws and regulations that require the disclosure of certain information in periodic financial and other reports that are filed with the Securities and Exchange Commission (SEC). If you are asked to review a draft SEC report, you are expected to respond promptly to help ensure that the SEC reports are accurate and complete.

The securities laws also impose requirements about recordkeeping and the establishment, maintenance, and evaluation of “disclosure controls and procedures” as well as “internal control over financial reporting,” as those terms are defined in the Sarbanes-Oxley Act of 2002. These laws require the Chief Executive Officer and the Chief Financial Officer to certify, among other things, the accuracy and completeness of information in the SEC reports and the effectiveness of disclosure controls and procedures, and that they have disclosed any fraud that involves management or other employees who have a significant role in internal control over financial reporting.

PG&E Corporation’s and Pacific Gas and Electric Company’s internal controls over financial reporting are regularly tested, and if any deficiencies are identified, the controls are corrected and re-tested until they are effective. While the Chief Executive Officer and Chief Financial Officer are ultimately responsible for establishing and maintaining internal controls, the primary burden of complying with and testing controls falls on all of us. As such, you’re expected to perform and test controls with due care.

If you have a concern about questionable accounting or auditing matters or internal controls (collectively, “accounting complaints”), contact the Compliance and Ethics Helpline. For more information, see the “How to Raise Concerns” section of this Code.



Insider Trading

Never make investment decisions about any equity or debt securities based on material nonpublic information obtained in the course of your employment. Information is nonpublic if it has not been publicly disseminated, and it is material if there is a substantial likelihood that a reasonable investor would consider it important in making an investment decision. It can also be illegal to disclose (or “tip”) this information to others who then buy or sell

securities on the basis of the tip. Examples of such information include expansion plans, major management changes, dividend rates, earnings, mergers and significant new contracts or projects. Using this information is against PG&E’s Insider Trading Policy and may violate laws or regulations.

Affiliate Interactions

The California Public Utilities Commission (CPUC) and the Federal Energy Regulatory Commission (FERC) have implemented affiliate rules to ensure that resources and assets of the regulated members of the corporate family are not used to subsidize or give an unfair advantage to our affiliates and subsidiaries. Failure to comply fully with the rules can result in sanctions, fines or other serious measures.

For more information, please refer to:

- <http://pgeatwork/Compliance/Pages/AffiliateRules.aspx>
- <http://pgeatwork/Compliance/Pages/FERCSOC.aspx>
- The Affiliate Rules and FERC Standards of Conduct Helpline at 415-972-7272

Antitrust Laws

Antitrust laws were established to promote economic competition among businesses. Activities that limit competition, restrict trade, or otherwise dominate a market may violate federal or state antitrust laws. Such violations can expose PG&E and individual employees to criminal penalties, large fines and civil lawsuits.

To avoid potential problems, follow these rules:

- Don’t fix prices or divide markets with competitors unless the agreement will be actively supervised and approved by the appropriate regulatory body.
- When attending meetings or social events with competitors or potential competitors, avoid discussing any of the following information if it’s not publicly available:
 - Prices, pricing policy, contract terms or conditions

- Costs, inventories, marketing and service plans, market surveys and studies
- Capacity plans and capabilities, territorial agreements or any other proprietary or confidential information
- Don't suggest or imply to any vendor that it must purchase services from PG&E in order to sell products or services to PG&E.
- Be careful that any negative or critical comments you make about a competitor are accurate.
- Don't use PG&E's size or resources to intimidate or threaten any individual or organization.

Environmental Laws and Regulations

PG&E is a recognized environmental leader and is committed to conducting its business in an environmentally sensitive manner. This commitment is consistent with our values and our Environmental Policy. It also makes good business sense. Make sure that the decisions you make on behalf of PG&E reflect this commitment.

For PG&E to be an environmental leader, we must first comply fully with all environmental laws and regulations that govern our business. When appropriate, we seek ways to go beyond what's required in how we deliver energy, serve our customers and manage our operations.



Political Contributions and Gifting

Local, state, federal and foreign government officials shape the legal, legislative and regulatory environment in which PG&E operates. If you interact with public officials or candidates for public office, or if you provide gifts or contributions to such individuals, you must understand the laws that control PG&E's participation in the political process.

Government Relations coordinates all contributions and gifts made to public officials on behalf of PG&E. "Public officials" include any elected official, candidate, non-elected official, employee or consultant of a federal, state or local government agency. Don't make commitments for contributions or provide gifts, including food and drinks, without advance approval by Government Relations at GovRelCompliance@pge.com.

Even buying a cup of coffee for an elected official, giving out squeeze lights or hard hats, allowing public officials to use a PG&E meeting room or hanging a banner with a bucket truck can constitute making a gift, subject to reporting requirements. While some exceptions may apply, federal law generally prohibits gifts to members of Congress and their staff. Local governments and their agencies may have additional gift limits or restrictions that can be stricter than state law.



Q: Is it OK to invite a governmental official, such as a congresswoman, state legislator, mayor or CPUC commissioner to speak at a company event?

A: Yes but before you invite a governmental official to attend a company event you need to obtain approval from an officer or director with responsibility for Government Relations. If the invitee is in the midst of a reelection campaign, the company event could be viewed as support for the campaign. Any food, drink, or transportation the company provides to the invitee could be considered a gift. In either case, there would be limits and reporting obligations Government Relations must monitor.

See the Foreign Corrupt Practices Act section below if you work with foreign government officials or foreign companies that may be wholly or partially owned or controlled by foreign governments.

Foreign Corrupt Practices Act

United States companies and their employees and agents doing business outside the United States must comply with the provisions of the Foreign Corrupt Practices Act (FCPA). The FCPA prohibits giving or offering **anything** of value to a foreign official, inside or outside the United States, to induce the recipient to misuse his or her official position to obtain or retain business or secure some improper advantage. "Anything of value" is defined broadly and includes gifts, money, services, entertainment and meals above certain limits. A "foreign official" includes any officer, employee, candidate, agent, representative, official or de facto official of any non-U.S. government, military, government-owned or affiliated company or political party, or any public international organization. The prohibition extends to the official's friends and family members.

The FCPA also requires accurate records of foreign transactions and related expenses, as well as reasonable accounting controls so that FCPA issues can't be disguised or hidden.

Therefore, contact the Law Department before providing any gift, money, entertainment, service or other item of value to a foreign official. Also, keep in mind that simple business courtesies such as meals, entertainment, or travel may be illegal under the FCPA or the laws of the host country. When doing business in a foreign country or with a representative of a foreign country, always maintain detailed records of transactions involving PG&E.

Government Contracts

Government contracts may have special provisions and reporting requirements. Be aware of those special provisions and immediately contact the Law Department if any questions arise. Fraudulent or dishonest acts in fulfilling a government contract can trigger severe penalties under the False Claims Act, including fines and jail time.

Copyright Laws

Copyrighted works include, but are not limited to, newsletters, magazine articles, newspapers, books, videotapes, drawings, musical recordings and software. Copyright law protects such works even if they do not include a copyright notice. If you would like to copy material for distribution at work, make sure that you have permission from the copyright holder before making copies. Check PG&E's Compliance and Ethics intranet site for more information.

Computer software is covered by licensing agreements that typically prohibit unauthorized use or copying.

- Never make unauthorized copies of software that is licensed to PG&E.
- Never load unlicensed software onto PG&E computer equipment or download unauthorized software from the Internet.



Additional Resources

Code Connection

Refer to the Conduct section of PG&E's online Guidance Document Library to view the Code Connection, a document that maps sections of this Code to sources for additional guidance and more detailed information.

Investor Inquiries

Refer portfolio manager and financial analyst inquiries to the Investor Relations Department at 415-972-7080. Refer individual shareholders and beneficial owners with questions about shareholder accounts and other administrative matters to the Corporate Secretary's Office at 415-267-7070.

Legal or Regulatory Inquiries

Refer inquiries from federal, state or local governmental officials to the Corporate Affairs Department.

Refer inquiries from federal or state regulatory officials to the Regulatory Relations Department.

Refer inquiries about legal issues or subpoenas to the Law Department.

Refer any requests for information from law enforcement agencies to the Law Department and to your local security contact or the Corporate Security Department.

This document is subject to revision. To see the latest version, click here or go to:

www.pge-corp.com/aboutus/corp_gov/coc.html

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EXHIBIT 37

To: USA M&L Supervisors[USAM&LSupervisors@exchange.pge.com]
Cc: Higgins, John[JZH0@pge.com]; Cowsert Chapman, Christine[ECCa@pge.com]
From: "Mcgowan, Chris"
Sent: Fri 12/14/2012 10:24:16 AM (UTC-08:00)
Subject: RE: Notification Of New Start Time & Add Notes

All,

Also, I would like to add another note for any of you who did not attend the conference call on Tuesday as some of you may be concerned that following these changes will result in higher number of late tickets. This is ok and what we expect to see. Late tickets are no longer a success metric. We will still report on it, but it will no longer be related to your STIP metrics. We want to see real late tickets from now on to better help us staff appropriately and someday get to a place where we can respond to tickets within the 2 working day time frame. Late tickets are no longer looked at as a bad thing, but more as a sign that your area might need help.

John Higgins is going to organize another call, I would suggest trying to make that call or contacting him directly if you have any questions or concerns.

Thank you for your time and help!

Chris McGowan

Locate & Mark Process Owner

GE&O IM Systems Integrity

(Office) 415.695.3483

(Cell) 415.861.9018

c4me@pge.com

From: McGowan, Chris
Sent: Friday, December 14, 2012 8:39 AM
To: USA M&L Supervisors
Cc: Higgins, John; Cowsert Chapman, Christine
Subject: Notification Of New Start Time & Add Notes

All,

As per your request from Tuesdays meeting , we've update the Notification Of New Start Time training material to include instructions regarding how to add notes when contact with the excavator has not been established and a new start time and date has not yet been mutual agreed upon. Please feel free to let me know if you have any questions or concerns.

Thanks,

Chris McGowan

Locate & Mark Process Owner

GE&O IM Systems Integrity

(Office) 415.695.3483

(Cell) 415.861.9018

c4me@pge.com

EXHIBIT 38

To: McGowan, Chris[C4Me@pge.com]
Cc: USA M&L Supervisors[USAM&LSupervisors@exchange.pge.com]; Cowsert Chapman, Christine[ECCA@PGE.COM]
From: Higgins, John
Sent: Fri 12/14/2012 2:08:16 PM (UTC-08:00)
Subject: Re: Notification Of New Start Time & Add Notes

Chris, thank you for the communication.

Team, as we discussed last week, the change we've implemented here is an important step in improving our credibility with the excavator community. Additionally, it will help us identify areas where we are understaffed.

I'm asking you to communicate this change to your L&M personnel, implement immediately, and check to ensure it's followed.

Please reach out to Chris or I if there are any questions or issues.

Regards,

John
On Dec 14, 2012, at 8:39 AM, "McGowan, Chris" <C4Me@pge.com> wrote:

All,

As per your request from Tuesdays meeting , we've update the Notification Of New Start Time training material to include instructions regarding how to add notes when contact with the excavator has not been established and a new start time and date has not yet been mutual agreed upon. Please feel free to let me know if you have any questions or concerns.

Thanks,

Chris McGowan

Locate & Mark Process Owner

GE&O IM Systems Integrity

(Office) 415.695.3483

(Cell) 415.861.9018

c4me@pge.com

<IRTH-FU-Android New Start Time (add notes).pdf>

EXHIBIT 39



Performance Evaluation Goal & Competency Rating – Quick View

Goal Ratings

Exceeds Target	Exceeding target results or achieving stretch results that impact the financial and non-financial success of PG&E <i>In other words . . .</i> <ul style="list-style-type: none">• This employee truly went above and beyond meeting their goals. They likely responded to unusual or unanticipated issues.• This employee achieved results that “moved the needle” in a significant way. Their work performance resulted in significant gains in efficiency or effectiveness of operations, business processes or services.
Target	Achieving target results that impact the financial and non-financial success of PG&E <i>In other words . . .</i> <ul style="list-style-type: none">• This employee’s performance positively impacted the efficiency or effectiveness of operations, business processes or services.• This employee met agreed upon targets, objectives and/or deadlines.• Both quality and quantity of work met necessary (or required) standards/expectations.
Below Target	Not achieving target results <i>In other words . . .</i> <ul style="list-style-type: none">• This employee did not sufficiently meet targets, objectives and/or deadlines. Business results likely were impacted negatively.• The quality or quantity of this employee’s work did not meet the standards or expectations.

Competency Ratings

Role Model	Demonstrates the key behaviors consistently and to a great extent, such that this employee is an example for others at PG&E to follow <i>In other words . . .</i> <ul style="list-style-type: none">• This employee consistently goes above and beyond in “how” they perform their work and in working with others, especially under pressure or in challenging situations.• When faced with tough situations, this employee always does the right thing.
Successful	Regularly demonstrates the key behaviors <i>In other words . . .</i> <ul style="list-style-type: none">• This employee reliably demonstrates the key behaviors in the work they do.• While this employee effectively demonstrates the competency, they may need further development or time in their role to reach role model status.
Developing*	Does not regularly demonstrate the key behaviors <i>In other words . . .</i> <ul style="list-style-type: none">• This employee only demonstrates some key behaviors, or inconsistently demonstrates them.• This employee has difficulty maintaining positive or successful working relationships.

* New employees do **not** automatically receive a rating of “Developing” on the competencies. Recently promoted or hired employees, who have at least 3 months on the job, need to be evaluated on the time in the role and the manager’s expectations. New employees who regularly demonstrate competencies within the given expectations of the role and time frame should be rated as “Successful.”



Performance Evaluation Goal & Competency Rating – Quick View

Evaluating Goals

Do

- Assess the importance to the business and the difficulty of the achievement
- Consider whether the environment changed in a way that the goals achieved were especially compelling (e.g., substantially reduced resources, substantially increased/changed expectations)
- Consider whether the employee drove the results versus “rode the wave”
- Check that all critical metrics for the job were at least met
- Consider whether the employee had the capacity/bandwidth to take on more (It may not be an Exceeds overall, if an employee had capacity to take on more)

Do Not

- Assume that one missed metric or goal automatically eliminates the employee from an exceeds overall rating
- Average goal ratings to arrive at the overall rating - unless they really are all of equal importance
- Only look at metrics and scorecards without considering the bigger picture of impact on the business of the achievements

Evaluating Competencies

Do

- Look at how consistently the competency was demonstrated throughout the entire performance period
- Consider whether peers look to this employee as a leader in relation to the competency; for example, is this someone to emulate for *Builds Teams*, or *Business Insight*, etc.?
- Consider the impact of how the competency was applied: Did skillful demonstration of the right behaviors in a tough situation make the difference between a successful and an unsuccessful outcome?
- Evaluate each competency separately and realize it is possible to have individual competency ratings in all 3 levels (role model, successful, developing)

Do Not

- Confuse charisma with leadership (e.g., is the employee sought out by peers because of their personality or out of respect and admiration?)
- Factor goal accomplishment into the competency rating: While rare, it is possible to miss goals and still be successful or role model in competencies.
- Let your evaluation of a few competencies unduly influence your overall evaluation of competencies
- Consider only feedback from others in making your rating
- Look for perfection — even at role model levels, perfect is not a realistic standard

EXHIBIT 40

PACIFIC GAS AND ELECTRIC COMPANY
Gas Operations Data Response

PG&E Data Request Index No.:	10707.15-.18 Supp01		
Request Date:	03-27-2017	Date Sent:	06-12-2017
Requesting Party:	GOST-CPUC SED/CPSD		
External Requester:	Darryl Gruen	PG&E Contact:	Jon Pendleton

PG&E's responses to the following SED data requests are intended to comply with the Instructions provided on March 27, 2017. PG&E has no objection to SED's instructions that restate Commission Rules of Practice and Procedure, such as the duty of candor, since PG&E is required to follow such rules regardless of such instructions. Also, please note that PG&E has not Bates-labeled or indexed the attachments to its responses below, as the attachments are not voluminous, but has instead labeled each attachment with the applicable Index/Attachment Number.

Per the Instructions, PG&E has provided the name of the person(s) answering each request, their title, the name and title of the person to whom they report, and contact information.

Question	Responded By	Title	Contact	Reports to	Title
15	Dennis MacAleese	Director, Gas T&D Maintenance & Constr	D0MN@pge.com	Melvin Christopher	VP, Gas T&D Operations
	Jeff Carroll	Superintendent, Gas T&D Locate and Mark	JLC5@pge.com	Donnie Jue	Director, T&D Ops Compliance
	Rick Bezanson	Superintendent, Gas T&D Pipeline Ops&Maint	RABP@pge.com	William Mojica	Director, Gas T&D Pipeline Ops & Maint
16	Dennis MacAleese	Director, Gas T&D Maintenance & Constr	D0MN@pge.com	Melvin Christopher	VP, Gas T&D Operations
	Rick Bezanson	Superintendent, Gas T&D Pipeline Ops&Maint	RABP@pge.com	William Mojica	Director, T&D Pipeline Ops & Maint
17	Dennis MacAleese	Director, Gas T&D Maintenance & Constr	D0MN@pge.com	Melvin Christopher	VP, Gas T&D Operations
	Jeff Carroll	Superintendent, Gas T&D Locate and Mark	JLC5@pge.com	Donnie Jue	Director, T&D Ops Compliance
	Rick Bezanson	Superintendent, Gas T&D Pipeline Ops&Maint	RABP@pge.com	William Mojica	Director, Gas T&D Pipeline Ops & Maint

18	Dennis MacAleese	Director, Gas T&D Maintenance & Constr	D0MN@pge.com	Melvin Christopher	VP, Gas T&D Operations
	Rick Bezanson	Superintendent, Gas T&D Pipeline Ops&Maint	RABP@pge.com	William Mojica	Director, T&D Pipeline Ops & Maint

Re: Incentives to Avoid Creating Late Tickets

QUESTION 10707.15: Please list the job titles of all PG&E personnel who had authority over PG&E employees or contractors, who in turn did work relating to PG&E's locate and mark program. For each job title, please provide the number of employees who had the job title. The job titles requested should include, but not be limited to those who had the title and/or served the role of:

- Director;
- Manager;
- Superintendent;
- Supervisor.
- If anyone has authority over locate and mark employees/contractors below the level of "Director" are not mentioned immediately above, please provide those job title.

RESPONSE 10707.15: Prior to 2014, the L&M function was imbedded in the local Maintenance and Construction (M&C) division organization. PG&E is still gathering this information for 2012 to 2013 and anticipates providing it May 31, 2017.

In 2014, the L&M function was placed under the newly created Compliance Programs Director and the Locate & Mark Superintendent. See the below table for a list of job titles for PG&E personnel under the Compliance Programs Director within the L&M function 2014 to February 2017.

2014* Compliance Programs Locate and Mark Organization	
Position	Number of Employees
Director, T&D Ops Compliance	1
Superintendent, Gas T&D Locate and Mark	1
Supervisor Gas T&D Locate and Mark	12
* Annual "snapshots" of historical organization charts record the organization's status as of the end of the year. Number of employees given is as of 12/31/2014.	

2015* Compliance Programs Locate and Mark Organization	
Position	Number of Employees
Director, T&D Ops Compliance	1
Superintendent, Locate and Mark	2

Supervisor, Gas T&D Locate and Mark	13
* Annual "snapshots" of historical organization charts record the organization's status as of the end of the year. Number of employees given is as of 12/31/2015.	

2016* Compliance Programs Locate and Mark Organization	
Position	Number of Employees
Director, T&D Ops Compliance	1
Superintendent, Locate and Mark	2
Supervisor, Gas T&D Locate and Mark	15
* Annual "snapshots" of historical organization charts record the organization's status as of the end of the year. Number of employees given is as of 12/31/2016.	

2017* Compliance Programs Locate and Mark Organization	
Position	Number of Employees
Senior Director, Gas T&D Operations	1
Director Compliance Programs	1
Superintendent, Locate and Mark	2
Supervisor, Gas T&D Locate and Mark	17
* Effective March 8, 2017	

Note in 2014 to present, there are some employees who perform locate and mark work within the districts that do not fall under the Compliance Programs Locate and Mark organization. PG&E is still gathering this information and anticipates providing it May 31, 2017.

RESPONSE 10707.15 Supp01:

2012 – 2013: Maintenance and Construction (M&C) Organization:

Prior to 2014, the L&M function was imbedded in the local M&C division organization. See the below table for a list of job titles for PG&E personnel under the M&C organizations who had authority over personnel who performed locate and mark in 2012 and 2013. The below totals are the result of annual "snapshots" of historical organization charts, which record the organization's status as of the end of the year. PG&E is still running a query to confirm whether any other individual held a position that may have overseen L&M personnel in 2012 and 2013; PG&E will update SED if any additional individuals are identified.

2012* M&C Organization Positions That Oversaw L&M Personnel	
Position Title	Number of Employees That Held Title

Director	4
Superintendent	10
Supervisor	15
* Annual "snapshots" of historical organization charts record the organization's status as of the end of the year. Number of employees given is as of 12/31/2012.	

2013* M&C Organization	
Positions That Oversaw L&M Personnel	
Position Title	Number of Employees That Held Title
Director	4
Superintendent	9
Supervisor	15
* Annual "snapshots" of historical organization charts record the organization's status as of the end of the year. Number of employees given is as of 12/31/2013.	

2014 – February 2017: Compliance Programs Organization:

PG&E would like to correct the total number of PG&E personnel who had authority over PG&E employees or contractors, who in turn did work relating to PG&E's locate and mark program, which was provided to SED in Response 10707.15 on April 19, 2017. The previous totals for the 2014-2016 Compliance Programs organization were based on annual "snapshots" of historical organization charts. These charts record the organization's status as of the end of the year and do not include supervisors who left or changed positions prior to the end of the year.

During 2014 within the Compliance Programs L&M Organization, there were 14 (not 12) Supervisors who at one point in the year had authority over individuals who performed locate and mark. See the below updated table for 2014.

2014 Compliance Programs Organization	
Positions That Oversaw L&M Personnel	
Position Title	Number of Employees That Held Title
Director, T&D Ops Compliance	1
Superintendent, Gas T&D Locate and Mark	1
Supervisor Gas T&D Locate and Mark	14

During 2015 within the Compliance Programs L&M Organization, there were 16 (not 13) Supervisors who at one point in the year had authority over individuals who performed locate and mark. See the below updated table for 2015.

2015 Compliance Programs Organization Positions That Oversaw L&M Personnel	
Position Title	Number of Employees That Held Title
Director, T&D Ops Compliance	1
Superintendent, Gas T&D Locate and Mark	2
Supervisor Gas T&D Locate and Mark	16

For 2016 within the Compliance Programs L&M Organization, there were 17 (not 15) Supervisors who at one point in the year had authority over individuals who performed locate and mark. See the below updated table for 2016.

2016 Compliance Programs Organization Positions That Oversaw L&M Employees	
Position Title	Number of Employees That Held Title
Director, T&D Ops Compliance	1
Superintendent, Gas T&D Locate and Mark	2
Supervisor Gas T&D Locate and Mark	17

2014 – February 2017: Operations and Maintenance (O&M) Organization:

The Compliance Programs organization does not perform L&M for transmission facilities in the Hinkley and Topock districts, but rather this work is performed by PG&E's Gas O&M Organization. See the below table for a list of job titles for PG&E personnel under the O&M organization that had authority over individuals who performed locate and mark from January 2014 to February 2017.

2014 O&M Organization Positions That Oversaw L&M Employees	
Position Title	Number of Employees That Held Title
Gas Maintenance Supervisor-Topock	1
Gas Maintenance Supervisor- Hinkley	1

2015 O&M Organization Positions That Oversaw L&M Employees	
Position Title	Number of Employees That Held Title
Gas Maintenance Supervisor-Topock	1
Gas Maintenance Supervisor- Hinkley	1

2016 O&M Organization Positions That Oversaw L&M Employees	
Position Title	Number of Employees That Held Title
Gas Maintenance Supervisor-Topock	1
Gas Maintenance Supervisor- Hinkley	1

January - February 2017 O&M Organization Positions That Oversaw L&M Employees	
Position Title	Number of Employees That Held Title
Gas Maintenance Supervisor-Topock	1
Gas Maintenance Supervisor-Hinkley	1

QUESTION 10707.16: Of those PG&E personnel who had their job title listed in response to question 15, between January, 2012 and February, 2017, did any of them receive questions in their job evaluations relating to the subject of late tickets in the locate and mark program?

RESPONSE 10707.16: All PG&E employees are expected to achieve individual performance goals set each year. The following positions of those listed in Response 10707.15 had goals pertaining to late tickets.

- 2014 Compliance Programs Locate and Mark Organization:
 - Superintendent, Gas T&D Locate and Mark
 - Supervisor Gas T&D Locate and Mark
- 2015 Compliance Programs Locate and Mark Organization:
 - Superintendent, Locate and Mark
 - Supervisor, Gas T&D Locate and Mark
- 2016 Compliance Programs Locate and Mark Organization:
 - Superintendent, Locate and Mark
 - Supervisor, Gas T&D Locate and Mark
- 2017 Compliance Programs Locate and Mark Organization:
 - Superintendent, Locate and Mark
 - Supervisor, Gas T&D Locate and Mark

PG&E is still collecting information pertaining to 2012-2013 the local M&C division organization and anticipates providing it May 31, 2017.

PG&E is still collecting information pertaining to employees who perform locate and mark work within the districts that do not fall under the Compliance Programs Locate and Mark organization and anticipates providing it May 31, 2017.

RESPONSE 10707.16 Supp01:

2012 – 2013: Maintenance and Construction (M&C) Organization:

Of the positions in the 2012-2013 M&C organization listed in Response 10707.15 Supp01, the following had goals pertaining to late tickets.

- 2012 M&C Organization
 - Superintendent
 - Supervisor
- 2013 M&C Organization
 - Superintendent
 - Supervisor

2014 – February 2017: Operations and Maintenance (O&M) Organization:

Of the positions listed in Response 10707.15 Supp01 for PG&E's Gas Operations & Maintenance organizations (the organization responsible for performing locate and mark in the Topock and Hinkley Districts from January 2014 to February 2017), none had goals pertaining to reducing late tickets.

QUESTION 10707.17: If the answer to question 16 is yes, please identify all of the names and titles of the PG&E personnel (including, but not limited to employees and contractors) who, between January, 2012 and February, 2017, received questions relating to the subject of late tickets in the locate and mark program.

RESPONSE 10707.17: PG&E is still collecting this information and anticipates providing it May 31, 2017.

RESPONSE 10707.17 Supp01:

2012 – 2013: Maintenance and Construction (M&C) Organization:

See attachment "*Index 10707-17_2012-2013 - M&C Names and Positions.xlsx*" for a list of all 2012-2013 M&C employees whose positions were identified in Response 10707.16 and who had goals pertaining to late tickets.

2014 – February 2017: Compliance Programs – Locate and Mark (L&M) Organization:

See attachment "*Index 10707-17_2014-20170308 - Compliance Programs Names and Positions.xlsx*" for a list of all employees whose positions were identified in Response 10707.16 and who had goals pertaining to late tickets.

2014 – February 2017: Operations and Maintenance (O&M) Organization:

Not applicable; refer to Response 10707.16 Supp01

QUESTION 10707.18: If the answer to question 16 is yes, please provide the questions in the job evaluations relating to the subject of late tickets in the locate and mark program.

RESPONSE 10707.18: Refer to the below bullet points for the specific goals of the job titles identified in Response 10707.16.

- 2014 Compliance Programs Locate and Mark Organization:
 - Superintendent, Gas T&D Locate and Mark
 - Goal: Complete 100% of all L&M/Standby work by regulatory timeframe.
 - Supervisor Gas T&D Locate and Mark
 - Goal: Zero Late compliance tags.
- 2015 Compliance Programs Locate and Mark Organization:
 - Superintendent, Locate and Mark
 - Goal: Reduce Late Tickets by 50% system wide by focusing on worst performing divisions.
 - Supervisor, Gas T&D Locate and Mark
 - Goal: Reduce Late tickets to Zero.
- 2016 Compliance Programs Locate and Mark Organization:
 - Superintendent, Locate and Mark
 - Goal: Continue Zero Late Ticket performance
 - Supervisor, Gas T&D Locate and Mark
 - Goal: Continue Zero Late Ticket performance
- 2017 Compliance Programs Locate and Mark Organization:
 - Superintendent, Locate and Mark
 - Goal: Build trust by executing work tickets correctly every time
 - Supervisor, Gas T&D Locate and Mark
 - Goal: Build trust by executing work tickets correctly every time

PG&E is still collecting information pertaining to 2012-2013 the local M&C division organization and anticipates providing it May 31, 2017.

PG&E is still collecting information pertaining to employees who perform locate and mark work within the districts that do not fall under the Compliance Programs Locate and Mark organization and anticipates providing it May 31, 2017.

RESPONSE 10707.18 Supp01:

2012 – 2013: Maintenance and Construction (M&C) Organization:

See below bullet points for the specific goals of the 2012-2013 M&C organization job titles identified in Response 10707.16. Note that while it is not explicitly referenced, late ticket reduction was captured as part of the metrics for the below goals.

- 2012 M&C Organization
 - Superintendent and Supervisor

- Goal: Insure all required maintenance and service work is completed as scheduled, with high quality. Improve Customer Satisfaction and meet customer commitments
 - Mark & Locate Quality Metric
 - Goal: Insure M&C work is performed in accordance with internal and external requirements, standards, procedures and policies
 - Mark & Locate Compliance Review - #85%
- 2013 M&C Organization
 - Superintendent and Supervisor
 - Goal: Ensure leak survey and locate and mark tags are completed in accordance with internal and external requirements and are accurately documented and promptly submitted and/or entered.

2014 – February 2017: Operations and Maintenance (O&M) Organization:

Not applicable; refer to Response 10707.16 Supp01

EXHIBIT 41

[Intentionally Omitted]

EXHIBIT 42

[Intentionally Omitted]

EXHIBIT 43

[Intentionally Omitted]

EXHIBIT 44

PACIFIC GAS AND ELECTRIC COMPANY
Gas Operations Data Response

PG&E Data Request Index No.:	Index 11481 Update		
Request Date:	05-31-2018	Date Sent:	06-29-2018
Requesting Party:	CPUC		
External Requester:	Wai-Yin "Franky" Chan	PG&E Contact:	[REDACTED]

PG&E notes this response and/or the attached documents contain information that should remain confidential and not be subject to public disclosure as it contains one or more of the following: critical infrastructure information that is not normally provided to the general public, the dissemination of which poses public safety risks (pursuant to the Critical Infrastructures Information Act of 2002, 6 U.S.C. §§131-134); sensitive personal information pertaining to PG&E employees; customer information; or commercially sensitive/proprietary information. This information is highlighted yellow below and, if feasible, highlighted yellow or outlined red in the referenced attachments.

See attached declaration supporting confidential designation ("Index 11481 Supp01_Confidentiality Declaration.pdf").

QUESTION 11481.01: Please confirm that there were allegations of falsifying information on an Underground Service Alert (USA) ticket by PG&E's Quality Management Department, including but not limited to the Asset Management Team, between January 1, 2012 and December 31, 2017 (hereafter called, "allegation".)

- a. Please break down the total number of such allegations by month, and division.
- b. Please provide the communications showing each such allegation, including the documentation underlying that allegation.
- c. Did PG&E investigate each such allegation to determine whether it was true? If so, please provide the following:
 - i. Identify the total number of investigations conducted in response to these allegations.
 - ii. Identify the department(s), including PG&E personnel or contractors, who conducted the investigations.
 - iii. Identify the total number of allegations that were found to be true.
 - iv. Identify the total number of allegations that were found to be false.
 - v. Identify the total number of allegations that did not reach an outcome as to whether they were true or false.
 - vi. Please provide all the documents (i.e. reports, emails exchange, employee log sheets, etc.) that are associated with the outcome or the communications of the outcome to all the parties. Please be sure to organize each set of documents so that it is marked to correspond with each identified investigation.
- d. Please provide the total number of such allegations that were not investigated.
 - i. For each such allegation that was not investigated, please explain why it was not.
 - ii. Please provide all documentation showing the reasons for not conducting such investigations.
 - iii. Please break down the total number of such allegations by month, and division.
- e. Did PG&E accept any of these allegations as true without conducting an investigation? If so, how many? (Please break down by month.)

- i. For each such allegation PG&E accepted as true, what was PG&E's basis of accepting each allegation?

RESPONSE 11481.01: As detailed in PG&E's response to Question 11481.02 below, PG&E has retained Guidepost to conduct a non-privileged investigation into late ticket under-reporting issues. As part of its work, Guidepost will be reviewing whether there were allegations of falsifying information on USA tickets made by PG&E's Quality Management Department, including but not limited to the Asset Management Team, between January 1, 2012 and 2017, as well as any PG&E investigations in response to such allegations. PG&E will supplement its response to this data request after Guidepost has issued its final report.

RESPONSE 11481.01 Supp01: Additional information regarding the issues raised in Question 11481.01 was provided to the CPUC in connection with the Guidepost Report (provided to SED on May 2, 2018), describing the actions that L&M employees have taken to cause late tickets to appear as timely.

QUESTION 11481.02: Please confirm that there were falsified USA tickets by PG&E between January 2012 and the date of this data request in 2017 (falsified tickets). If this is confirmed.

- a. How many of these falsified tickets were there during this period? Please provide a breakdown of such falsified tickets by month and division.
- b. How many of these falsified tickets would have become late if they had not been falsified?
 - i. Please provide a breakdown of such falsified tickets by month and division.
- c. Please list all of the ways in which such tickets were falsified. (Eg-Phasing a ticket.)

RESPONSE 11481.02: As conveyed to SED via telephone conversations on November 8 and November 13, 2017, PG&E recently obtained input from its locate and mark (L&M) personnel regarding what appear to be instances of intentional under-reporting of late tickets during the specified time period. PG&E obtained this information as part of discussions related to implementation of improvements to its Irthnet database. These improvements are designed to close gaps that can result in a late ticket appearing to be on time for recordkeeping purposes, when in fact the ticket was still in process past its required due date and should have been identified as late (so called "field late" tickets, as described in PG&E's Response 10707.08 Supp02, delivered to SED on June 6, 2017). These Irthnet improvements became operational on November 17, 2017.

The information obtained from PG&E's L&M personnel was obtained informally and preliminarily, and has not yet been confirmed. Depending on the outcome of the investigation, PG&E believes it may be sufficient to constitute potential "falsification of records" or "other instances of deception" under the Commission's Gas and Electric Safety Citation Program (D.16-09-055). Given the apparent overlap between a self-report on this issue and SED's ongoing L&M preliminary investigation, PG&E contacted SED in part to obtain guidance on whether a self-report would be appropriate or whether PG&E should provide the information on potential falsification to SED as part of the L&M preliminary investigation. PG&E's understanding is that SED recommended providing the information in a data request response as part of the L&M preliminary investigation.

PG&E plans to review the information it has received of intentional under-reporting of late tickets as part of the investigation currently being conducted by Guidepost. PG&E has retained Guidepost to conduct a non-privileged investigation of the late ticket under-reporting issues as part of PG&E's ongoing Gas Operations Special Attention Review (SAR) on L&M issues, which began in May 2017. See attachment "[Index 11481-02_L&M SAR Initiative Slide](#)"

[Decks_CONF.zip](#)” for SAR slide decks pertaining to this project; see attachment “[Index 11481-02_L&M SAR Action Plan 11-1-2017.pdf](#)” for the most recent SAR action plan.

- Note, attachment “[Index 11481-02_L&M SAR Initiative 5-10-2017_CONF.pdf](#)” is designated confidential because it contains Third-Party information subject to non-disclosure or confidentiality agreements on pages 9-13. This information is outlined in red in the attachment.
- Note, attachment “[Index 11481-02_L&M SAR Initiative 6-13-2017_CONF.pdf](#)” is designated confidential because it contains Third-Party information subject to non-disclosure or confidentiality agreements on pages 15, 16, and 21-25. This information is outlined in red in the attachment.

Guidepost’s final report is expected in the First Quarter of 2018.

PG&E has invited SED to participate in weekly investigation update calls led by Guidepost, in which PG&E’s court-appointed Monitor also participates. PG&E welcomes SED’s participation in these calls.

- a. PG&E intends to develop this information as part of the Guidepost investigation and will supplement its response to this data request after Guidepost has issued its final report.
- b. Please see PG&E’s response to Q2a above.
- c. Please see PG&E’s response to Q2a above.

RESPONSE 11481.02 Supp01: The Guidepost Report (provided to the CPUC on May 2, 2018), describing the actions that L&M employees have taken to cause late tickets to appear as timely, provides information regarding the data at issue in Question 11481.04.

QUESTION 11481.05: Please provide the performance evaluations of Mr. Joel Dickson during his time as Director Gas Operations Compliance Programs (Director).

RESPONSE 11481.05: Joel Dickson was the Director of Gas Operations Compliance Programs from November 12, 2013 to March 19, 2017. PG&E is still collecting the evaluations for these years and will provide them as soon as possible.

RESPONSE 11481.05 Supp01: PG&E has compiled the requested performance evaluations for Mr. Joel Dickson for the time period in which he was the Director of Gas Operation Compliance Programs. Copies of the password encrypted files with the end of year performance review for the years 2013 through 2017 are attached in “[Index 11481-05_Joel Dickson PerfEva_Encrypt_CONF.zip](#).” See below for a list of files in the aforementioned zip file:

- [“Index 11481-05_Joel Dickson 2013 PerfEva_Encrypt_CONF.pdf”](#)
- [“Index 11481-05_Joel Dickson 2014 PerfEva_Encrypt_CONF.pdf”](#)
- [“Index 11481-05_Joel Dickson 2015 PerfEva_Encrypt_CONF.pdf”](#)
- [“Index 11481-05_Joel Dickson 2016 PerfEva_Encrypt_CONF.pdf”](#)
- [“Index 11481-05_Joel Dickson 2017 PerfEva_Encrypt_CONF.pdf”](#)

To obtain the passwords to open the files please contact either Janet Lee Redmond, PG&E HR Regulatory Case Manager at 415-706-9743 or Gabe Trevino, HR Business Analyst, at 415-973-3902.

Note, attachment “[Index 11481-05_Joel Dickson 2013 PerfEva_Encrypt_CONF.pdf](#)” is designated confidential because it contains personal information on each page of the file. The confidential information is outlined red in the attachment.

Note, attachment "[*Index 11481-05_Joel Dickson 2014 PerfEva_Encrypt_CONF.pdf*](#)" is designated confidential because it contains personal information on each page of the file. The confidential information is outlined red in the attachment.

Note, attachment "[*Index 11481-05_Joel Dickson 2015 PerfEva_Encrypt_CONF.pdf*](#)" is designated confidential because it contains personal information on each page of the file. The confidential information is outlined red in the attachment.

Note, attachment "[*Index 11481-05_Joel Dickson 2016 PerfEva_Encrypt_CONF.pdf*](#)" is designated confidential because it contains personal information on each page of the file. The confidential information is outlined red in the attachment.

Note, attachment "[*Index 11481-05_Joel Dickson 2017 PerfEva_Encrypt_CONF.pdf*](#)" is designated confidential because it contains personal information on each page of the file. The confidential information is outlined red in the attachment.

QUESTION 11481.06: Please identify each performance evaluation of Mr. Joel Dickson during his time as Director that included a goal of zero late tickets.

RESPONSE 11481.06: PG&E is still collecting this information and will provide it as soon as possible.

RESPONSE 11481.06 Supp01: See attachments provided in Response 11481.05 Supp01 for a complete listing of performance goals and corresponding evaluations.

QUESTION 11481.07: Was the goal of zero late tickets in Mr. Dickson's performance evaluations as Director in any way linked to financial incentives or penalties? If so, how?

RESPONSE 11481.07: PG&E is still collecting this information and will provide it as soon as possible.

RESPONSE 11481.07 Supp01: All of Mr. Dickson's goals are collectively assessed in Mr. Dickson's performance evaluation, to arrive at an overall Goal and Competency Rating, which is linked to salary increases and financial incentives. See attachment "[*Index 11481-07_Goal and Competency Rating - Quick Guide.pdf*](#)" for the criteria used to determine Goal and Competency ratings. Management employees, such as Mr. Dickson, received a performance review at least twice a year from 2013 through 2017.

Under PG&E's compensation programs and policies, an individual's compensation is not specifically based on performance against a single goal. An employee's annual salary increase (if any) is based, in part, on the employee's overall performance rating, with employees who receive the lowest ratings generally receiving zero increase in salary and those with the highest rating a larger increase.

In addition, the overall end of year performance rating influences the employee's annual Short-Term Incentive Plan (STIP) payment. Based on their end of year performance rating, each employee is assigned an Individual Performance Modifier (IPM). The IPM ranges from 0% to 150%, with employees who receive the lowest performance rating receiving zero STIP payment and those with the highest performance rating eligible to receive a STIP payment equal to 150% of their calculated STIP amount. The overall performance rating may also influence an employees' award of stock options through the Long-Term Incentive Stock Plan.

An employee may also receive one-time rewards and recognitions. PG&E is not aware of any such awards being made to Mr. Dickson on the basis of late ticket performance.

EXHIBIT 45

Application: 15-09-001
(U 39 M)
Exhibit No.: (PG&E-43)
Date: October 3, 2016
Witness(es): John Lowe

PACIFIC GAS AND ELECTRIC COMPANY
2017 GENERAL RATE CASE
LATE FILED EXHIBIT ON EXECUTIVE COMPENSATION AND SAFETY
EXHIBIT (PG&E-43)



**PACIFIC GAS AND ELECTRIC COMPANY
LATE FILED EXHIBIT ON
EXECUTIVE COMPENSATION AND SAFETY**

A. Introduction

This late filed exhibit provides additional documentation and explanation of Pacific Gas and Electric Company's (PG&E or the Company) executive compensation plans and programs in accordance with Administrative Law Judge (ALJ) Stephen C. Roscow's request during the September 1, 2016 evidentiary hearing.¹

In the Assigned Commissioner's Scoping Memo, the California Public Utilities Commission (Commission) President Michael Picker stated that "this proceeding will document and review how PG&E finances safety efforts, particularly how the Commission evaluates compensation of PG&E's executive leadership around questions of safety."² In order to advance that objective, the purpose of this exhibit is to further document (i) the structure of compensation for PG&E's executives, including the role that safety plays in PG&E's at-risk compensation, (ii) how safety metrics included in that compensation are established and evaluated, and (iii) what portions of executive compensation are included in PG&E's 2017 General Rate Case (GRC) forecast.

In accordance with the ALJ's request, PG&E worked with the Commission's Safety and Enforcement Division (SED) to determine the documentation that should be included in this exhibit as well as the organization of the report. The SED asked that PG&E include a section in this testimony pertaining to Section 321.1 of the Public Utilities Code.

Finally, as directed by the ALJ, a draft of this exhibit was circulated on September 23, 2016, to all parties, as well as staff of the Energy Division and SED. SED staff, The Utility Reform Network (TURN), Collaborative Approaches to Utility Safety Enforcement (CAUSE) and the National Diversity

¹ See Transcript (Tr.) Vol. 12, 972:14 – 974:14.

² Scoping Memo, p. 7.

Coalition (NDC) provided comments on the draft which have been reflected in this final version.³

B. Procedural Background for This Late Filed Exhibit

On September 15, 2015, PG&E filed its GRC Application. Among other things, PG&E's Application discussed the Company's compensation plans and programs generally. PG&E also addressed particular programs such as the Short-Term Incentive Plan (STIP), which include specific safety components that apply both to executive and non-executive employees. Some parties offered testimony on PG&E's STIP metrics or on executive compensation generally. In its GRC Application, PG&E sought rate recovery of STIP for non-executive employees only. PG&E did not seek rate recovery of STIP for executive employees or the costs of its Long-Term Incentive Plan (LTIP) for any Company employees.

As mentioned in the Introduction, on December 1, 2015, Commissioner Picker issued the Scoping Memo, addressing the scope of the proceeding and other procedural matters. The Scoping Memo stated that "this proceeding will document and review how PG&E finances safety efforts, particularly how the Commission evaluates compensation of PG&E's executive leadership around questions of safety."⁴

On August 3, 2016, PG&E and the other settling parties filed a Joint Motion for Adoption of Settlement Agreement that settled all issues in the case with the exception of two contested issues.

On August 30, 2016, Commissioner Picker and ALJ Roscow held a workshop to discuss, among other things, "[h]ow does the Settlement comply with the intent of the Scoping Memo that 'this proceeding will document and

³ CAUSE has asked PG&E to include the following statement with this testimony: "CAUSE observes that Exhibits A, C and D disclose elements of discretion, subjectivity, and limits on data quality that were not apparent in earlier testimony. Since the metrics influence employee compensation, CAUSE is concerned that this discretion and subjectivity could adversely affect how management analyzes data regarding safety risks and how comprehensively these risks are communicated to the Board. These concerns do not qualify CAUSE's support for the settlement. However, CAUSE asks that the Commission, in assessing and mitigating the effect of approving the settlement on safety, avoid a determination that the current executive compensation scheme provides the appropriate incentive to promote safety, so that the issue can be examined without prejudice in future proceedings."

⁴ Scoping Memo, p. 7.

1 review how PG&E finances safety efforts, particularly how the Commission
 2 evaluates compensation of PG&E's executive leadership around questions of
 3 safety?" At the workshop, PG&E addressed the Commissioner and ALJ's
 4 safety and compensation-related questions. PG&E also provided a 5-page
 5 written presentation, which discussed the structure of executive compensation
 6 generally, as well as the role that safety plays.⁵

7 On September 1, 2016, the Commission held an evidentiary hearing on
 8 various settlement items. With respect to the Commission's stated intent that
 9 this "proceeding will document and review how PG&E financed the safety
 10 efforts, particularly how the Commission evaluates compensation of PG&E's
 11 executive leadership around questions of safety," the Commission noted that the
 12 workshop "went a long way" toward enhancing that documentation.⁶ The
 13 Commission also noted, however, that the record would benefit from additional
 14 material with respect to executive compensation.⁷ Therefore, the Commission
 15 ordered PG&E and the settling parties to jointly prepare a late filed exhibit
 16 providing that documentation and to work with the Commission's SED on the
 17 details of the organization of the exhibit.⁸ As the ALJ instructed, PG&E has
 18 attempted to keep this document factual and avoid argument in explaining the
 19 way the Company's executive compensation programs work.⁹

20 On September 3, 2016, ALJ Roscow issued a ruling admitting PG&E's
 21 August 30, 2016 Workshop materials into the evidentiary record as
 22 Exhibit (PG&E-40).

23 **C. Overview of Executive Compensation**

24 A general overview of the structure of PG&E's executive compensation can
 25 be found in PG&E's August 30, 2016 Workshop materials entitled, "Pacific Gas
 26 and Electric Company Executive Compensation."¹⁰ Generally, PG&E's

5 This document is included as Attachment A. It was entered into the evidentiary record as Exhibit (PG&E-40) by ALJ Roscow's September 3, 2016 email ruling.

6 Tr. Vol. 12, 973:5-12.

7 Tr. Vol. 12, 973:12-17.

8 Tr. Vol. 12, 973:18 to 974:5.

9 The record reflects disagreement among parties over the extent to which PG&E safety metrics serve as effective incentives to increase management focus on safety.

10 This document is included as Attachment A.

executive compensation consists of two distinct categories—“foundational” and “at-risk” compensation.

1. Foundational Compensation

As defined by PG&E, foundational compensation includes an employee’s base pay, as well as pension and benefits.¹¹ This is the portion of an employee’s compensation designed to provide a stable income, as well as health, wellness and retirement benefits.¹² Foundation pay, by design, is not meant to be at-risk.¹³ For executive employees, the foundational piece constitutes about 40 percent of their overall compensation.¹⁴ Most of the costs of foundational compensation for all PG&E employees (including executives) are included in PG&E’s 2017 GRC revenue requirement.¹⁵

2. At-Risk Compensation

As defined by PG&E, at-risk compensation is designed to be conditioned on one or more aspects of the employee’s and/or the Company’s level of performance against set goals.¹⁶ For executive employees, there are two main at-risk components of compensation—the STIP and the LTIP.¹⁷ Together, these at-risk components of compensation constitute about 60 percent of compensation for executives.¹⁸ Costs of at-risk compensation for executives are shareholder funded and are not included in PG&E’s 2017 GRC revenue requirement.¹⁹

¹¹ See Attachment A, p. 2.

¹² *Ibid.*

¹³ See Attachment A, p. 2; Tr. Vol. 11, 98:12-20.

¹⁴ See Attachment A, p. 3.

¹⁵ *Ibid.*

¹⁶ See Attachment A, p. 2; *See generally*, Tr. Vol. 11, 98:21 to 101:10.

¹⁷ *Ibid.*

¹⁸ See Attachment A, p. 3.

¹⁹ *Ibid.*

1 **a. STIP**

2 STIP is PG&E's variable pay program tied to annual company
3 performance.²⁰ As described in PG&E's Opening Testimony, STIP is
4 comprised of Financial, Customer, and Safety metrics.²¹ Weight given
5 to safety measures now constitutes 50 percent of the total STIP
6 program.²² It consists of nine individual, public and employee safety
7 measures.²³ The other 50 percent of PG&E's STIP is made up of a
8 financial metric that constitutes 25 percent of the total program, and
9 two customer measures that together comprise another 25 percent of
10 the program.²⁴

11 **1) How STIP Safety Metrics Are Established and Evaluated**

12 STIP metrics are established each calendar year (Plan Year) by
13 the Compensation Committee of the PG&E Corporation Board of
14 Directors (Compensation Committee).²⁵ To be included as a STIP
15 metric, the metric must be benchmarkable and auditable.²⁶

16 The process begins with PG&E's Integrated Planning process,
17 through which lines of business identify safety issues and potential

20 At the August 30, 2016 Workshop, PG&E stated that there were approximately 6,000 non-executive, STIP-eligible employees consisting of non-represented employees. (See Tr. Vol. 11, 126:1-12.) The number of non-executive, STIP-eligible employees is closer to 10,000 and also includes some employees represented by the Engineers and Scientists of California and the International Brotherhood of Electrical Workers, Local 1245.

21 Exhibit (PG&E-8), Human Resources, pages 3-11 through 3-18.

22 *Ibid.*; See Attachment A, p. 4. See also Attachment B for a chart showing the measures included in the Safety metric over time and PG&E's performance relative to target from those measures. Please note that over time, some measures have been added or removed from the program; in addition, some measures could reasonably be categorized in more than one way. CAUSE, for example, would consider the System Average Interruption Duration Index (SAIDI) reliability metric to be a Safety measure, while PG&E currently includes it within its Customer metric. Attachment C provides STIP Scorecards from 2010-2016, which show the individual measures, their weighting and categorization for each year.

23 See Attachment A, p. 5 for a list and description of PG&E's current safety metrics included in STIP.

24 See Attachment D, p. 5-6, provided to NDC in discovery (DR_NDC 002-Q10Atch01) and also included PG&E's workpapers Exhibit (PG&E-8), WP 3-11 through 3-16.

25 Exhibit (PG&E-8), Human Resources, p. 3-12, lines 3-5.

26 Tr. Vol. 11, 105:2-12.

metrics to the Company's senior leadership.²⁷ The Company sets specific goals for the metrics, which are based on historical performance, benchmarking data, and other relevant information.

Typically, the Company's senior leadership makes recommendations on which safety metrics should be included in the STIP in the first quarter of each year. (Many metrics beyond those ultimately included in the STIP become part of the Business Plan Review (BPR) process and are monitored by the Company's senior leadership on a monthly basis.) The STIP metric recommendations move along parallel tracks to the Nuclear, Operations, and Safety (NOS) Committee and to the Compensation Committee of the PG&E Corporation Board. The NOS Committee reviews the metrics and provides feedback to the Compensation Committee about the metrics that should be included in the STIP. Ultimately, the Compensation Committee makes final decisions about which metrics will be included in the STIP for all executives.

The Company evaluates its performance against the goals each month, and the annual result is used as the basis for the STIP payout. Goals for the following year are established using the same process described above.²⁸ PG&E has provided STIP Scorecards for each plan year 2010 through 2016 as Attachment C to this exhibit. Each Scorecard provides key pieces of information about the metrics that make up the program for the year, including the weighting of each metric; the threshold, target and maximum payout target performance goals; the results (i.e., PG&E's actual performance for the metric); and the overall STIP score for the year.

2) How Safety Affects STIP Payout

As discussed above, STIP costs for executive employees are shareholder funded and are not included in PG&E's 2017 GRC revenue requirement forecast. However, the same safety metrics

²⁷ See Tr. Vol. 11, 105:2 to 107:3 for a general overview of the metric setting and review process.

²⁸ Tr. Vol. 11, 110:8 to 111:10.

1 apply to executive and non-executive employees. With respect to
 2 safety, both an executive and non-executive employee's STIP
 3 payout is affected by the Company's STIP score (i.e., Company
 4 performance against established safety metrics). The Company's
 5 final STIP performance score is determined by evaluating
 6 achievement of business performance measures based on the
 7 rating scales and standards established at the beginning of each
 8 Plan Year. The STIP Score can range from 0 percent to
 9 200 percent of target each year. Before the final STIP score is
 10 calculated, the Compensation Committee reviews and approves the
 11 results. Notwithstanding the Company performance score, the
 12 Compensation Committee has ultimate discretion when approving
 13 STIP each year for all employees, other than those holding a
 14 President or CEO position. For example, in 2011, the
 15 Compensation Committee of the Board exercised its discretion and
 16 reduced executives' 2010 STIP payout to 0 percent, and the
 17 appropriate full Boards exercised the same discretion and reduced
 18 the 2010 payout to 0 percent for the President and CEO as a result
 19 of the San Bruno accident.²⁹

20 Additionally, both an executive and non-executive employee's
 21 STIP payout is impacted by the individual employee's performance
 22 on competencies and individual goals.³⁰ In addition to affecting the
 23 employee's STIP payout, individual performance can also affect the
 24 amount of an employee's annual base pay or "merit" increase and,
 25 therefore, the amount of the employee's base pay for the following
 26 year.

27 **b. LTIP**

28 LTIP is PG&E's long-term variable pay program. LTIP consists of
 29 two components—Performance-based shares (Performance Shares)
 30 and Restricted Stock Units (RSU). Performance Shares pay out in a
 31 range from zero to 200 percent based predominantly on how well

²⁹ See Attachment A, p. 3; Tr. Vol. 11, 99:28 to 100:6.

³⁰ See Tr. Vol. 11, 124:12-27.

PG&E's stock performs compared to a comparator group over a 3-year period. While LTIP performance is tied primarily to long-term company value, it also includes a 5 percent safety metric.³¹ While the safety metric accounts for only 5 percent of LTIP, long-term company value, the primary driver of LTIP performance, can also be affected by safety issues.³² For example, following the San Bruno accident, for the respective 3-year periods corresponding to 2012-2014 payouts, PG&E's stock underperformed the comparator group, resulting in a zero payout of Performance Shares in those years.³³ Performance Shares paid out at 35 percent and 50 percent respectively in 2015 and 2016—significantly below target.³⁴

As requested by SED, this exhibit includes additional documentation of how the LTIP Performance Share payout is calculated. Specifically, PG&E has provided documentation of the actual calculation of Performance Share payouts for each year 2011-2016.³⁵ For each year, that documentation shows the companies in the Performance Comparator Group, the 3-year performance for each company, PG&E's performance by percentile compared to the Performance Comparator Group, the payout schedule by ranking, and PG&E's actual payout based on its performance. Also attached to this exhibit is a graph, showing PG&E's stock performance compared to the Performance Comparator Group from September 2009 through July 2016.³⁶

Unlike Performance Shares, RSUs pay out each year notwithstanding the Company's performance against the Performance Comparator Group. However, the value of those shares is also affected by the performance of the Company's stock.

³¹ See Attachment A, p. 2, 3.

³² See Tr. Vol. 11, 100:7-19.

³³ See Attachment A, p. 3.

³⁴ *Ibid.* Attachment E includes documentation of the Performance Share payout for each year, 2011-2016.

³⁵ See Attachment A, p. 3.

³⁶ See Attachment F for a graph showing PG&E's stock performance compared to the comparator group from September 2009 through July 2016.

D. Public Utilities Code Section 321.1

In pertinent part, Section 321.1 of the California Public Utilities Code states:

- (a) It is the intent of the Legislature that the commission assess the consequences of its decisions, including economic effects, and assess and mitigate the impacts of its decision on customer, public, and employee safety, as part of each ratemaking, rulemaking, or other proceeding, and that this be accomplished using existing resources and within existing commission structures. ...
- (b) The commission shall take all necessary and appropriate actions to assess the economic effects of its decisions and to assess and mitigate the impacts of its decisions on customer, public, and employee safety.

At the August 30, 2016 Workshop, Commissioner Picker and ALJ Roscow asked PG&E's panel of witnesses a question on a similar point regarding how the Settlement Agreement would affect PG&E's operations.³⁷ PG&E explained that the Settlement Agreement is expected to enable the Company to continue to improve safety performance and that the level of funding should be sufficient for PG&E to achieve its safety goals.³⁸ Despite the reductions in some operational areas made by the Settlement Agreement, PG&E would be authorized funding above historic levels in nearly all safety-related Major Work Categories.³⁹ (Those that are not above historic levels are either new areas of work or areas for which a historic comparison is not appropriate.)⁴⁰

PG&E's performance expectation is made explicit in the Settlement Agreement itself in Section 3.2.8.2. It states:

PG&E agrees that this Agreement should enable PG&E to comply with its obligations under Public Utilities Code Section 451 to "furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment and facilities...as are necessary to promote the safety, health, comfort and convenience of its patrons, employees, and the public."

³⁷ Tr. Vol. 12, pp. 74-78.

³⁸ Tr. Vol. 12, 78:13-21.

³⁹ Exhibit (PG&E-38), pp. 15-16, 18-20, and 22.

⁴⁰ See Exhibit (PG&E-38), pages 16 (Other Support) and 18 (MWC Capacity Programs).

Overall 2010 STIP Score: 0.864

2010 STIP Measures	Weight	2010 Performance Scales			2010 Results	2010 STIP Score
		Threshold 0.500	Target 1.000	Maximum 2.000		
1. Earnings from Operations (\$m)	50.0%				1,330.5	0.944
2. Customer Satisfaction and Brand Health Index	15.0%	77.4	77.7	78.3	74.6	0.000
3. Reliable Energy Delivery Index	15.0%	0.500	1.000	2.000	0.902	0.902
System Average Interruption Frequency Index (SAIFI)	(35%)	1.122	1.066	1.002	1.108	0.627
Customer Average Interruption Duration Index (CAIDI)	(35%)	119.70	113.80	109.60	117.77	0.663
Gas System Integrity Work	(30%)	0.980	1.000	NA	1.501	1.501
4. Safety Index	10.0%	0.500	1.000	2.000	1.000	1.000*
OSHA Recordable Rate	(75%)	2.143	2.025	1.786	1.839	1.779
Motor Vehicle Incident Rate	(25%)	2.51	2.37	2.09	2.39	0.915
5. Premier Survey Employee Index	5.0%	67.7	68.7	70.7	69.3	1.300
6. Environmental Leadership Index	5.0%	0.500	1.000	2.000	1.842	1.842
Notice of Violation (NOV) Rate	(50%)	2.25	1.68	1.35	1.10	2.000
Energy Use Reduction	(16.66%)	3.5	4.0	6.0	4.3	1.150
Water Use Reduction	(16.66%)	3.5	4.0	6.0	7.1	2.000
Solid Waste Diversion	(16.66%)	4.0	6.0	8.0	7.8	1.900
Overall 2010 STIP Score	100.0%					0.864

*As a result of the two on-the-job fatalities in 2010 and in line with the formula for this measure, the Safety Index score was capped at 1.0.



STIP 2011 Scorecard

2011 STIP Measures	Weight	2011 STIP Annual Performance Scales			2011 Scorecard	
		Threshold 0.5	Target 1.0	Maximum 2.0	Year End	
					Results	Score
1. Earnings from Operations ⁽¹⁾	50.00%					0.695
2. Operational Excellence Index	25.00%	0.5	1.0	2.0		0.891
<i>Electric Reliable Energy Delivery</i>						1.436
System Average Interruption Frequency Index (SAIFI)	20.00%	1.108	1.052	0.997	0.967	
Customer Average Interruption Duration Index (CAIDI)	20.00%	117.8	111.9	107.7	113.4	
<i>Gas Reliable Energy Delivery</i>						1.582
Gas Transmission and Distribution Leak Survey Quality	10.00%	2.34	1.87	0.93	1.34	
Gas Emergency Response Time	10.00%	96.5	97.0	98.0	97.6	
<i>Safety Performance ⁽²⁾</i>						0.000
Occupational Safety and Health Act (OSHA) Recordables Rate	30.00%	1.747	1.600	1.416	1.621	
Motor Vehicle Incident (MVI) Rate	10.00%	2.27	2.15	1.91	2.10	
3. Customer Satisfaction and Brand Health Index	15.00%	75.0	75.3	76.1	73.0	0.000
4. Employee Engagement Index	5.00%	68.59	69.59	71.59	67.23	0.000
5. Environmental Leadership Index	5.00%	0.5	1.0	2.0		0.730
<i>Environmental Compliance</i>						0.000
Notice of Violations (NOVs)	50.00%	8	7	4	10	
<i>Operational Footprint</i>						1.460
Administrative Waste Diversion	16.67%	53.0	55.0	60.0	59.5	
Energy Use Reduction	16.67%	3.2	4.2	7.2	4.8	
Water Use Reduction	16.67%	4.7	5.7	8.7	6.0	
Overall 2011 STIP Score						0.607

- (1) Our EFO target is not publicly reported but is consistent with the guidance range originally provided for 2011 EPS from operations of \$3.65 to \$3.80. The publicly disclosed lowered guidance range for 2011 EPS from operations is \$3.45 to \$3.60. Unbudgeted items impacting comparability (such as changes in accounting methods) will be excluded.
- (2) The Safety Performance component was given a zero score due to the company's overall safety performance in 2011. While there was improvement in our performance in the MVI rate and OSHA recordables rate, we missed the mark in the most important areas of employee safety with three employee fatalities in 2011.

The Compensation Committee of the PG&E Corporation Board of Directors has complete discretion to determine and pay all STIP awards to officers and non-officer employees.

2012 STIP Performance Targets & Results

2012 STIP Measures	Weight	2012 STIP Year-End Performance Targets			2012 Year-End	
		Threshold	Target	Maximum	Results	Score
Safety	40%					1.316
Institute of Nuclear Power Operations (INPO) Performance						
Unit 1	4%	2 nd Quartile Midpoint	1 st Quartile Minimum	99.0 or 1 st Decile		1.506
Unit 2	4%	2 nd Quartile Midpoint	1 st Quartile Minimum	99.0 or 1 st Decile		2.000
Transmission & Distribution (T&D) Wires Down	4%	2,728	2,687	2,604	3054	0.000
911 Emergency Response	4%	74.5%	77.0%	87.8%	84.1%	1.656
Leak Repair Performance	4%	90% by Dec. 31	100% by Dec. 31	100% by Oct. 31	100% by Oct 31	2.000
Gas Emergency Response						
Within 30 minutes	2%	60% in 4 th Quarter	75% in 4 th Quarter	75% in 3 rd & 4 th Quarters	85.3% in 3 rd & 4 th Quarters	2.000
Within 60 minutes	2%	98% in 4 th Quarter	99% in 4 th Quarter	99% in 3 rd & 4 th Quarters	99.2% in 3 rd & 4 th Quarters	2.000
Lost Workday Case Rate	8%	0.251	0.240	0.221	0.319	0.000
Preventable Motor Vehicle Incident (MVI) Rate	8%	1.994	1.952	1.889	1.787	2.000
Customer	30%					1.547
Customer Satisfaction Score	10%	73.7	74.1	75.1	74.5	1.400
System Average Interruption Duration Index (SAIDI)	10%	137.7	133.1	126.5	131.5	1.242
Gas Asset Mapping	10%	35	30	20	20	2.000
Financial	30%					1.272
Earnings from Operations (SM) ⁽¹⁾						
2012 STIP Score						1.372

(1) Our EFO target is not publicly reported but is consistent with the guidance range provided for 2012 EPS from operations of \$3.10 to \$3.30. Unbudgeted items impacting comparability (such as changes in accounting methods) will be excluded.



STIP 2013 Scorecard

2013 STIP Measures		Weight	2013 STIP Year-End Performance Targets			2013 Year-End Results	
			Threshold 0.5	Target 1.0	Maximum 2.0	Results	Score
Safety		40%					0.295
Public Safety	Institute of Nuclear Power Operations (INPO) Performance						
	Unit 1	4%	2 nd Quartile Median	1 st Quartile Minimum	99.0 or 1 st Decile		0.000
	Unit 2	4%	2 nd Quartile Midpoint	1 st Quartile Minimum	96.7 or 1 st Decile		0.000
	Transmission & Distribution (T&D) Wires Down ⁽¹⁾	4%	2,998	2,938	2,778	2,400	2.000
	911 Emergency Response	4%	86.2%	88.3%	91.2%	92.2%	2.000
	Leak Repair Performance ⁽¹⁾	4%	1,500	1,000	500	151	2.000
	Gas Emergency Response	4%	23.50	22.00	20.00	21.26	1.370
Employee Safety	Lost Workday Case Rate ⁽¹⁾	8%	0.296	0.240	0.223	0.326	0.000
	Serious Preventable Motor Vehicle Incident (SPMVI) Rate	8%	0.300	0.280	0.250	0.381	0.000
Customer		35%					0.408
Customer Satisfaction Score		10%	74.8	75.2	76.0	75.4	1.250
Gas & Electric Dig-ins Reduction		5%	4.11	3.90	3.41	4.46	0.000
System Average Interruption Duration Index (SAIDI) ⁽¹⁾		10%	128.9	121.6	115.5	116.8	1.789
Gas Asset Mapping Duration		5%	100.00	90.00	60.00	89.0	1.033
Execute Gas Pipeline Safety Work Index		5%	0.50	1.00	2.00	1.04	1.040
Financial		25%					0.413
Earnings from Operations (\$M) ⁽²⁾							
2013 STIP Score						1.116	

(1) Our EFO target is not publicly reported but is consistent with the guidance range provided for 2013 EPS from operations of \$2.55 to \$2.75. Unbudgeted items impacting comparability (such as changes in accounting methods) will be excluded.

The Compensation Committee of the PG&E Corporation Board of Directors has complete discretion to determine and pay all STIP awards to officers and non-officer employees. This includes discretion to reduce the final score on any and all measures downward to zero.



2014 YEAR END - STIP Scorecard

2014 STIP Measures	Weight	STIP Performance Targets			Results		
		Threshold 0.5	Target 1.0	Maximum 2.0	Results	Quartile	Unweighted Score
Safety	40%						0.266
Transmission & Distribution (T&D) Wires Down	4%	2,700	2,400	2,250	2,615		0.642
911 Emergency Response	4%	92.2%	93.6%	95.0%	94.09%		1.350
Gas Emergency Response	4%	21.30	21.00	20.00	19.95		2.000
Gas Dig-ins Reduction	4%	2.74	2.60	2.47	2.42		2.000
DCPP Performance Indicator – Unit 1	4%	90.000	94.000	98.000	84.220		0.000
DCPP Performance Indicator – Unit 2	4%	83.000	88.000	93.000	84.430		0.643
Lost Workday Case Rate	8%	0.310	0.271	0.245	0.376		0.000
Serious Preventable Motor Vehicle Incident (SPMVI) Rate	8%	0.235	0.221	0.214	0.274		0.000
Customer	35%						0.598
Customer Satisfaction Score	10%	75.5	75.7	76.0	76.5		2.000
In-Line Inspection (ILI) Inspection and Upgrade Index	5%	0.500	1.000	2.000	1.560		1.560
Execute Gas Pipeline Safety Work Index	5%	0.500	1.000	2.000	0.920		0.920
System Average Interruption Duration Index (SAIDI)	10%	116.80	115.00	108.50	110.21		1.737
Gas Asset Mapping Duration	5%	34	32	30	28.93		2.000
Financial	25%						0.488
Earnings from Operations (\$M)							0.488
2014 STIP Score	100.00%						1.352

Our EFO target is not publicly reported. Unbudgeted items impacting comparability (such as changes in accounting methods) will be excluded.

The Compensation Committee of the PG&E Corporation Board of Directors has complete discretion to determine and pay all STIP awards to officers and non-officer employees. This includes discretion to reduce the final score on any and all measures downward to zero.

PG&E (43)



2015 Year-End STIP Update

Key Points

We were successful in hitting our year-end targets for **six of our eleven** Short-term Incentive Plan (STIP) measures. As a result of our performance, the overall PG&E 2015 STIP score is 1.217. A detailed interpretation of the STIP 2015 Scorecard follows with an explanation of our final results.

STIP 2015 Scorecard

2015 STIP Measures	Weight	STIP Performance Targets			Results			
		Threshold 0.5	Target 1.0	Maximum 2.0	Results	Quartile	Unweighted Score	Weighted Score
Safety	50%							0.568
DCPP Reliability and Safety Indicator – Unit 1	4%	91.200	94.200	97.200	99.44		2.000	0.080
DCPP Reliability and Safety Indicator – Unit 2	4%	91.200	94.200	97.200	99.83		2.000	0.080
Gas In-Line Inspection (ILI) and Upgrade Index	6%	0.500	1.000	2.000	1.52		1.520	0.091
Gas Dig-ins Reduction	5%	2.30	2.06	1.94	2.11		0.896	0.045
Gas Emergency Response	5%	21.50	21.00	20.00	20.33		1.670	0.084
Transmission & Distribution (T&D) Wires Down	5%	2,615	2,540	2,400	2,572.0		0.787	0.039
911 Emergency Response	5%	94.1%	95.0%	96.0%	97.14%		2.000	0.100
Lost Workday Case Rate 0.25 may be added for zero serious incidents	8%	0.376	0.330	0.305	0.000		0.000	0.000
Serious Preventable Motor Vehicle Incident (SPMVI) Rate	8%	0.274	0.239	0.218	0.266		0.614	0.049
Customer	25%							0.200
Customer Satisfaction Score	15%	76.7	77.2	77.7	75.5		0.000	0.000
System Average Interruption Duration Index (SAIDI)	10%	110.20	106.60	102.60	96.33		2.000	0.200
Financial	25%							0.449
Earnings from Operations (\$M)	25%							0.449
Overall YTD 2015 STIP Score	100.00%							1.217

Our EFO target is not publicly reported. Unbudgeted items impacting comparability (such as changes in accounting methods) will be excluded.

The Compensation Committee of the PG&E Corporation Board of Directors has complete discretion to determine and pay all STIP awards to officers and non-officer employees. This includes discretion to reduce the final score on any and all measures downward to zero.

2016 STIP Performance Targets

(PG&E-43)

Weight	2016 STIP Measure	2016 STIP Performance Targets		
		Threshold	Target	Maximum
50%	Safety	0.5	1.0	2.0
	<i>Public Safety</i>			
	<i>Nuclear Operations</i>			
	Diablo Canyon Power Plant Reliability and Safety Indicator			
4%	DCPP Unit 1 Score	94.20	98.70	100.00
4%	DCPP Unit 2 Score	94.20	98.70	100.00
	<i>Electric Operations</i>			
5%	Transmission & Distribution (T&D) Wires Down	3,000	2,572	2,400
5%	911 Emergency Response	95.0%	97.5%	98.5%
	<i>Gas Operations</i>			
6%	Gas In-Line Inspection and Upgrade Index	0.500	1.000	2.000
5%	Gas Dig-ins Reduction	2.18	2.03	1.96
	<i>Definition: exclusions adjusted slightly to align with benchmarks</i>			
5%	Gas Emergency Response	22.0	21.0	20.0
	<i>Employee Safety</i>			
6%	Lost Workday (LWD) Case Rate	0.353	0.320	0.275
6%	Serious Preventable Motor Vehicle Incident (SPMVI) Rate	0.252	0.239	0.226
4%	Timely Reporting of Injuries <i>New metric for 2016</i>	64.0%	67.1%	70.2%
25%	Customer			
15%	Customer Satisfaction Score	75.5	75.7	76.3
10%	System Average Interruption Duration Index (SAIDI)	101.10	96.30	93.90
25%	Financial			
25%	Earnings from Operations (EFO) (\$M)	--	--	--

Changes from 2015 highlighted in red.

- (1) Scores are evenly distributed (linear) between the points on the scales above, except EFO which utilizes the performance scale
- (2) Our EFO target is not publicly reported but is consistent with the guidance range for 2016 EPS from operations. Unbudgeted items impacting comparability (such as changes in accounting methods) will be excluded.

EXHIBIT 46



2017 Year-End STIP Update

Key Points

We were successful in hitting year-end targets for eight of our thirteen Short-Term Incentive Plan (STIP) measures. As a result of our performance, the overall PG&E 2017 STIP score is **0.959**. A detailed interpretation of the STIP 2017 Scorecard follows, along with an explanation of our final results.

For further details on how STIP works and how to calculate STIP, refer to the [STIP intranet site](#).

STIP 2017 Scorecard

2017 STIP Measures	Weight	STIP Performance Targets ⁽¹⁾			Results		
		Threshold 0.5	Target 1.0	Maximum 2.0	Results	Unweighted Score	Weighted Score
Safety	50%						0.667
DCPP Reliability and Safety Indicator – Unit 1	4%	85.3	90.5	95.8	97.0	2.000	0.080
DCPP Reliability and Safety Indicator – Unit 2	4%	85.3	87.6	90.0	90.0	2.000	0.080
Electric Overhead Conductor Index	5%	0.500	1.000	2.000	1.142	1.142	0.057
911 Emergency Response	5%	95.0%	97.5%	98.5%	96.6%	0.820	0.041
Gas In-Line Inspection (ILI) and Upgrade Index	6%	0.5	1.0	2.0	1.9	1.900	0.114
Gas Dig-ins Reduction	5%	2.02	1.92	1.82	1.89	1.300	0.065
Gas Emergency Response	5%	22.0	21.0	20.0	20.4	1.600	0.080
SIF Corrective Action Index	6%	0.5	1.0	2.0	2.0	2.000	0.120
Serious Preventable Motor Vehicle Incident (SPMVI) Rate	6%	0.252	0.239	0.224	0.287	0.000	0.000
Timely Reporting of Injuries	4%	67.3%	71.3%	75.3%	69.3%	0.750	0.030
Customer	25%						0.000
Customer Satisfaction Score	15%	75.9	76.4	77.9	75.6	0.000	0.000
System Average Interruption Duration Index (SAIDI)	10%	110.2	107.0	104.7	114.0	0.000	0.000
Financial	25%						0.292
Earnings from Operations (\$M) ⁽²⁾	25%					1.169	0.292
Overall YTD 2017 STIP Score	100.00%						0.959

Our EFO target is not publicly reported. Unbudgeted items impacting comparability (such as changes in accounting methods) will be excluded.

The Compensation Committee of the PG&E Corporation Board of Directors has complete discretion to determine and pay all STIP awards to officers and non-officer employees. This includes discretion to reduce the final score on any and all measures downward to zero.

Detailed Interpretation of STIP 2017 Scorecard

Safety – 50 percent of total STIP score

Public Safety

Nuclear Operations

- *Diablo Canyon Power Plant Reliability and Safety Indicator:* The year-end score as reported to Institute of Nuclear Power Operations (INPO) for PG&E's Diablo Canyon Power Plant Units 1 and 2 is based on twelve performance indicators for nuclear power generation, including unit capability, radiation exposure and safety accident rate.

Performance: Unit 1 exceeded the year-end stretch goal, resulting in [REDACTED] performance due to refueling outage duration. Unit 2 met the year-end stretch goal, achieving [REDACTED] performance.

Gas Operations

- *In-Line Inspection (ILI) and Upgrade Index:* PG&E's ability to complete planned in-line inspections and pipeline retrofit projects. Includes two equally weighted components: In-Line Inspections and In-Line Upgrades.

Performance: Year-end Index score exceeded the year-end target primarily due to ILI upgrade project bundling efforts with the strength test program and three inspection projects successfully pulled forward from 2018. Performance was driven by inspecting 309 miles (versus 242 miles target) and upgrading 154 miles (versus 132 miles target). No benchmark.

- *Gas Dig-Ins Reduction:* The total number of third-party dig-ins to PG&E gas assets per 1,000 Underground Service Alert (USA) tickets. A dig-in refers to any damage (impact or exposure) that result in a repair or replacement of an underground facility as a result of an excavation.

Performance: Year-end rate slightly exceeded the year-end target. Performance was achieved through active engagement with customers, local government, and contractors in damage prevention, including the Dig-in Reduction Team, Public Awareness, and Project Satisfaction Survey teams. [REDACTED] performance.

- *Gas Emergency Response:* The average response time that a Gas Service Representative (GSR) or qualified first responder takes to respond to the site of an immediate response gas emergency order.

Performance: Year-end results exceeded the target. Gas Service Representatives respond to all gas odor calls as "Priority 0, Immediate Response." [REDACTED] performance.

Electric Operations

- *Electric Overhead Conductor Index:* Tracks work that supports the safe, reliable operation of the overhead electric system. The index is comprised of three equally weighted components: (1) Electric Distribution Infrared Inspections, (2) Electric Distribution Conductor Upgrades, and (3) Transmission and Distribution (T&D) Vegetation Management Public Safety and Reliability (PS&R) program.

Performance: Year-end Index score exceeded the year-end target. Performance was driven by completing infrared inspection work and vegetation management work ahead of plan. Overhead conductor replacement performance was below target due primarily to resource reprioritization in the fourth quarter for October 2017 wildfire response. No benchmark.

- **911 Emergency Response:** The percentage of time that PG&E staff relieve first responders at the site of a potential PG&E electric hazard within 60 minutes.

Performance: Did not meet the year-end target due to significant increase in first quarter storm-related calls and an overall 48 percent increase in 2017 response requests compared to the three-year average. [REDACTED] performance.

Employee Safety

- **Serious Injuries and Fatalities (SIF) Corrective Action Index:** PG&E's response to SIF events by measuring the quality and timely completion of planned actions. Consists of two equally weighted components: (1) Quality of Corrective Actions, and (2) Timely Completion of Corrective Actions.

Performance: Year-end results exceeded year-end stretch performance. Performance was driven by focused attention on corrective actions and steady improvement throughout the year. No benchmark.

- **Serious Preventable Motor Vehicle Incident (SPMVI) Rate:** The total number of serious preventable motor vehicle incidents that the driver could have reasonably avoided, per one million miles driven.

Performance: Did not meet the year-end target. Result is mainly due to rear-ending and striking stationary objects, which accounted for 56 percent of total SPMVIs in 2017. No benchmark.

- **Timely Reporting of Injuries:** Percentage of work-related injuries reported to the 24/7 Nurse Report Line within one day of the incident.

Performance: Did not meet the year-end target, but exceeded the threshold and outperformed 2016 results. Performance was driven by increased focus on reporting. No benchmark

Customer – 25 percent of total STIP score

- **Customer Satisfaction Score (CSS):** The overall satisfaction of customers with the products and services offered by PG&E, as measured through an ongoing quarterly survey.

Performance: Did not meet the year-end threshold goal. Declined primarily due to customer dissatisfaction with pricing changes and high winter bills. [REDACTED] performance.

- **System Average Interruption Duration Index (SAIDI):** The total time the average customer is without electric power during a given time period (measured in number of minutes). Includes all planned and unplanned sustained outages.

Performance: Did not meet the year-end threshold goal. Performance was driven by a high number of significant weather impacts, including effects of late-winter weather events, record precipitation, record summer heat events, and wildfires. As measured by frequency, the system average number of interruptions was the second-best year on record. Second quartile performance.

Financial – 25 percent of total STIP score

- **Earnings from Operations (EFO):** Net income excluding items impacting comparability, which represent income or expenses associated with events or circumstances considered unusual and not part of ongoing core operations. The measurement is non-GAAP.

- *Performance:* The 2017 earnings from operations target is not publicly reported.

The Compensation Committee of the PG&E Corporation Board of Directors has complete discretion to determine and pay all STIP awards to officers and non-officer employees. This includes discretion to reduce the final score on any and all measures downward to zero. Payments advanced under the STIP are subject to the PG&E Corporation and Pacific Gas and Electric Company Executive Incentive Compensation Recoupment Policy.

EXHIBIT 47

-----X

En Banc Meeting

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TRANSCRIBED FROM VIDEO STREAM

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DATED September 24th, 2015

REPORTED BY: BENJAMIN GERALD

1 trying to contact the contractor to do some scheduling
2 around marking and locating the lines. The contractor
3 wasn't replying. So all the communication that needed
4 to happen didn't happen. The contractor proceeded to,
5 you know, dig even though they didn't have the pipelines
6 marked, and the incident happened.

7 I would say that this is quite an unusual
8 incident in the sense that the contractor did call 811,
9 and in 99 percent of cases where the contractor calls
10 811, there is no incident that takes place. But I think
11 for me it highlights again the importance of
12 communications and handling exception cases. Situations
13 where somebody who's supposed to do something isn't
14 doing what they're supposed to be doing. They're
15 supposed to return the phone call, but they didn't,
16 right? And having a system in place that's robust
17 enough where you can catch these exceptions that they
18 don't lead to incidents like that.

19 And, you know, I also wanted to include a
20 dig-in in this presentation, because it is the single
21 most important driver for incidents on the gas side.
22 We've been working a lot with the legislation to enhance
23 how we do dig-in prevention in California, but every
24 time I talk about safety and utilities, I always want to
25 make a statement about dig-in and the importance of

1 calling 811 and the importance of all the stakeholders
2 really working together because that is the, sort of,
3 easiest area, I think, in a way to go after, because it
4 is in our control. It will also have the biggest number
5 of reduction of actual incidents that could lead to
6 serious safety situations.

7 And then, just to finish off, I wanted to use a
8 positive example of something that I think was actually
9 a very good lesson learned, and that was a response to
10 the Napa earthquake that happened last year. It was a
11 6.0 magnitude earthquake, and Safety and Enforcement
12 Division closely monitored PG&E's response to the event.
13 It affected both electric and gas facilities at PG&E,
14 and the community generally had a very positive response
15 to how PG&E act in the situation and coordinated with
16 first responders. PG&E implemented their emergency
17 procedures that seemed to have worked well. They
18 responded by repairing a huge number of leaks, and I
19 think there were over 300 leaks that they had to repair
20 in the area. They handled almost 6,000 customer
21 requests in just a couple of days of people calling in
22 saying that they smelled gas, or you know, that they're
23 out of power. And I think there were a lot of positive
24 things that came out of this incident in terms of what
25 kind of things work well in emergency response, and how

EXHIBIT 48

To: Walker, Steven[S1Wr@pge.com]; Gas Ops GTDO Compliance Programs - Direct Reports[GasOpsGTDOComplianceProgramsManagersandSuperintendents@pge.com]; Gas Ops GTDO Locate and Mark Supervisors[GasOpsGTDOLocateandMarkSupervisors@exchange.pge.com]
Cc: [REDACTED]
From: Dickson, Joel
Sent: Mon 5/4/2015 7:42:27 AM (UTC-07:00)
Subject: RE: L&M Daily Late Ticket Count

Team, I appreciate our focus on eliminating the late tickets. Certainly Friday was better than Monday of last week. But I want to reinforce my expectation that the only number we should see in the late ticket column is zero. Please redouble your efforts to ensure our locators our making positive contact with contractors if we believe we will miss the 48 hour window. If help is needed Sabrina Lynch and her GSS team are there to support you. We must be laser focused on eliminating late tickets and continue our efforts to use positive contact and other support as control points. Please call with questions. J

From: Walker, Steven
Sent: Monday, May 04, 2015 7:08 AM
To: Gas Ops GTDO Compliance Programs - Direct Reports; Gas Ops GTDO Locate and Mark Supervisors
Cc: Dickson, Joel
Subject: L&M Daily Late Ticket Count

Good Morning All -

Please see the attached for the detailed analysis of Friday’s late tickets. There are currently a multitude of phased tickets which we are still trying to manage to completion.

Summary

Friday's total for Late Tickets system wide is: **9**.

The current total for Tickets > 48 Hours Past Due is: **4**

See charts below for Divisional Breakdown

TICKETS >48Hours PA

Division	4/27/15	4/28/15	4/29/15	4/30/15	5/1/15	Weekly Totals	Division	
Central Coast	2	0	1	0	0	3	Central Coast	
DeAnza	1	1	2	0	0	4	DeAnza	
Diablo	0	0	0	0	0	0	Diablo	
East Bay	1	1	0	0	0	2	East Bay	
Fresno	0	0	0	0	2	2	Fresno	
Humboldt	37	6	9	6	2	60	Humboldt	
Kern	29	0	1	2	0	32	Kern	
Los Padres	2	1	0	0	0	3	Los Padres	
Mission	0	1	0	0	0	1	Mission	

North Bay	2	0	0	0	0	2
North Valley	0	0	0	0	0	0
Peninsula	0	0	0	2	4	6
Sacramento	0	0	0	1	0	1
San Francisco	1	1	2	0	0	4
Sierra	0	0	1	0	1	2
San Jose	1	4	0	0	0	5
Sonoma	2	0	4	0	0	6
Stockton	11	1	0	0	0	12
Yosemite	17	3	22	6	0	48
					1	0
Totals	106	19	42	17	9	193

North Bay	
North Valley	
Peninsula	
Sacramento	
San Francisco	
Sierra	
San Jose	
Sonoma	
Stockton	
Yosemite	
Totals	

Thanks,

Steven Walker

Gas Operations Administrator
 (Direct) 415.695.3527
 (Mobile) 415.635.4497
s1wr@pge.com
 2180 Harrison st.
 San Francisco, CA 94110

EXHIBIT 49

To: Gas Ops GTDO Locate and Mark - Supervisors North[GasOpsGTDOLocateandMarkSupervisorsNorth@pge.com]; [REDACTED]
Cc: Walker, Steven[S1Wr@pge.com]
From: Carroll, Jeffery
Sent: Thur 7/23/2015 7:46:49 AM (UTC-07:00)
Subject: FW: Late tickets

North L&M Supervisors:

First & foremost: THANK YOU for your diligence in accomplishing ZERO Late Tickets for almost two weeks! This is outstanding!

Please NOTE:

I cannot stress enough the importance of Katherin's message (below). There have been two late tickets in the last two days – and as I have shared with you – because we are at ZERO, ANY Late Ticket gets intense focus. Trust me, NONE of you want to be in the position of explaining why a single ticket went late.

Steven is NOT the “Final Check” for Late tickets. It is unacceptable to have him chasing these at the last minute.

Please ensure that ALL of the other layers are in place and being exercised: 1) The Locator working the folders; 2) Your Clerk keeping eyes on the tickets and alerting the locator – or contacting the excavator; 3) The Sr Compliance Rep viewing and owning the performance of the group; 4) You, the supervisor (or filling for supervisor) viewing and owning the performance of the group.

The ultimate goal, as we progress through our staffing increase, is to shorten the time a ticket is open. We should begin to see a decrease in phased tickets as we are able to work tickets and close them well before the 48 hr window. I know this seems like a dream right now – but should be our ultimate goal. Please begin to lead toward that goal.

Keep up the solid performance!

Thanks!

Jeff

From: Mack, Katherin L
Sent: Wednesday, July 22, 2015 8:27 AM
To: Gas Ops GTDO Locate and Mark - Supervisors South; Gas Ops GTDO Locate and Mark - Supervisors North
Cc: Walker, Steven; Carroll, Jeffery
Subject: Late tickets

Team

Daily, Steven is receiving notifications of tickets due in 15 minutes resulting in him reaching out to your seniors to resolve. Yesterday alone he received 25 notifications of tickets due in 15 minutes. One ticket went late as it was due at 6:00 am that number would have been much higher without him making phone calls to your teams. I received a phone call from Steven at 4:30 trying to reach someone for a potential late ticket. I reached out to a supervisor to handle the situation. Are you receiving your notifications? Is your Senior and clerical team receiving notifications?

Most of all what this says is your senior, your clerical and yourself are not taking the time to do end of the day reviews of your folders. As you all know this takes only a few minutes to do. You all have a folder for all tickets sort by due and ensure positive contact has been made for tickets due after hours or early morning. I need your help! Steven will be reaching out to each one of your Seniors to look at the folder they are using.

Katherin Mack
Locate & Mark Superintendent South
PG&E Gas Operations T&D Compliance Programs
Cell: (209)-406-8248

EXHIBIT 50

To: Curtis, Dawn[DECn@pge.com]
From: Higgins, John
Sent: Fri 10/26/2012 6:52:52 AM (UTC-07:00)
Subject: RE: Late Tickets

...and you're doing a great job. If the ticket's late, it's late...as long as we've reached out to the contractor, you've done your best with the meager resources we've given you!! Thanks again Dawn...

From: Curtis, Dawn
Sent: Friday, October 26, 2012 6:52 AM
To: Higgins, John
Subject: RE: Late Tickets

John,

I am borrowing 1 Surveyor from [REDACTED] group for the whole month of November and am able to use 1 T & D Apprentice Fitter for at least 2 days a week out of the Oakland yard. We are doing our best to keep our heads above water.

Dawn Curtis
East Bay
Gas Compliance Supervisor
510-719-6726

From: Higgins, John
Sent: Friday, October 26, 2012 6:47 AM
To: Curtis, Dawn; [REDACTED]
Cc: [REDACTED]
Subject: RE: Late Tickets

Dawn,

I agree that this is no way to run a Company. We need to get some additional help, and it is in progress. We still have some steps to complete before the locators are on the property. A few questions: Do we have the ability to use anyone from the leak survey group, as Lorene Harden indicated some of them were cross-trained to locate? Do we have any people from the crews that are cross-trained to locate? With all of the people who have left, I've got to believe some of them are capable. In the meantime, we have agreement with 1245 to add resources on a temporary basis, and are working to get this done.

Thanks,

John

From: Curtis, Dawn
Sent: Thursday, October 25, 2012 12:47 PM
To: [REDACTED]
Cc: Higgins, John; [REDACTED]
Subject: Late Tickets

[REDACTED]

Last week we had 11 late tickets, these tickets were late due to the fact that we had more tickets than we had employees to get them marked, we had over 170 tickets in the Oakland Folders with only 3 locators to get those tickets marked. I have been asking for extra help for months now and if we don't get help soon we are just going to end up with more late tickets, unhappy contractors and possibly more dig-ins. My 3 locators have been working OT to try and keep up with the massive amount of tickets that got called into the Oakland area, they are getting wore out. When 1 of these 3 locators is sick or takes a day off we are left with 2 locators for all of Oakland. There is a need here for experienced locators to help us out, we had 2 GC guys take bids here to be Fieldman but all the Locate & Mark classes are full and I have them on a waiting list for a possible class in December. We are in a desperate state here in Oakland.

Dawn Curtis
East Bay
Gas Compliance Supervisor
510-719-6726

EXHIBIT 51



Damage Prevention

SPECIAL ATTENTION REVIEW

NOVEMBER 22, 2013

Damage Ratio Slow to Improve

PERFORMANCE

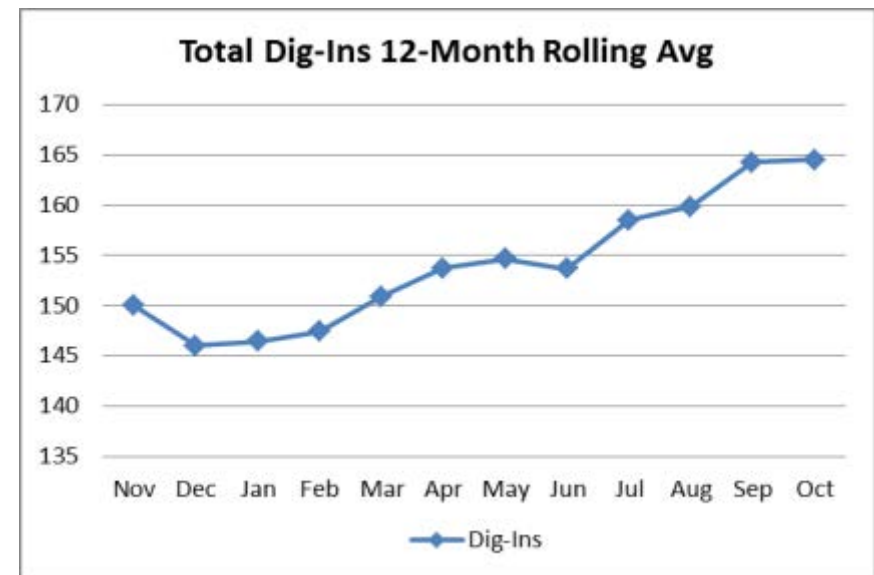
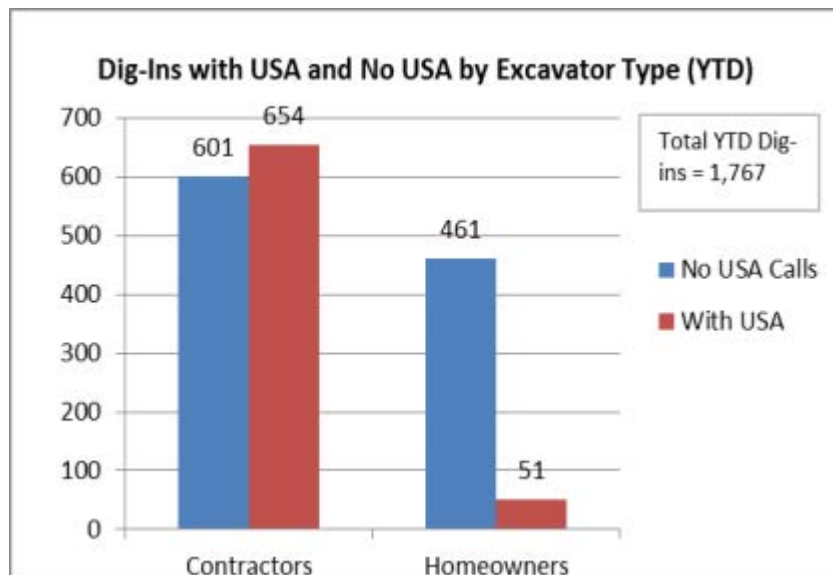
Results

Month		
Actual	Target	Score
411	389	074

YTD		
Actual	Target	Score
443	389	000

EOY		
Forecast	Target	Score
443	389	000

- Improvement in Damage Ratio minimal.
- Leading cause (“no calls”) continues to average 59% of total damages
- Over 71% of our damages are due to contractor excavation
- 48% of those “no calls” are coming from contractors
- About 25% of dig-ins are excavations by hand



- **This is an external program designed to reduce “dig-ins” and other potential damage-inducing activities by appropriately identifying and dealing with commercial excavating entities which have “dug-in” or otherwise damaged – or threatened to damage - PG&E underground assets and/or which have repeatedly demonstrated poor excavating habits, such as non-compliance with Government Code 4216 (the California “One Call” law).**
- **To execute this program, a decision matrix, based on defensible criteria, would be employed. Possible sanctions or other actions would be implemented to correct the culture or behavior of “habitual offenders.”**

Process Flow – Evaluation of Offenders

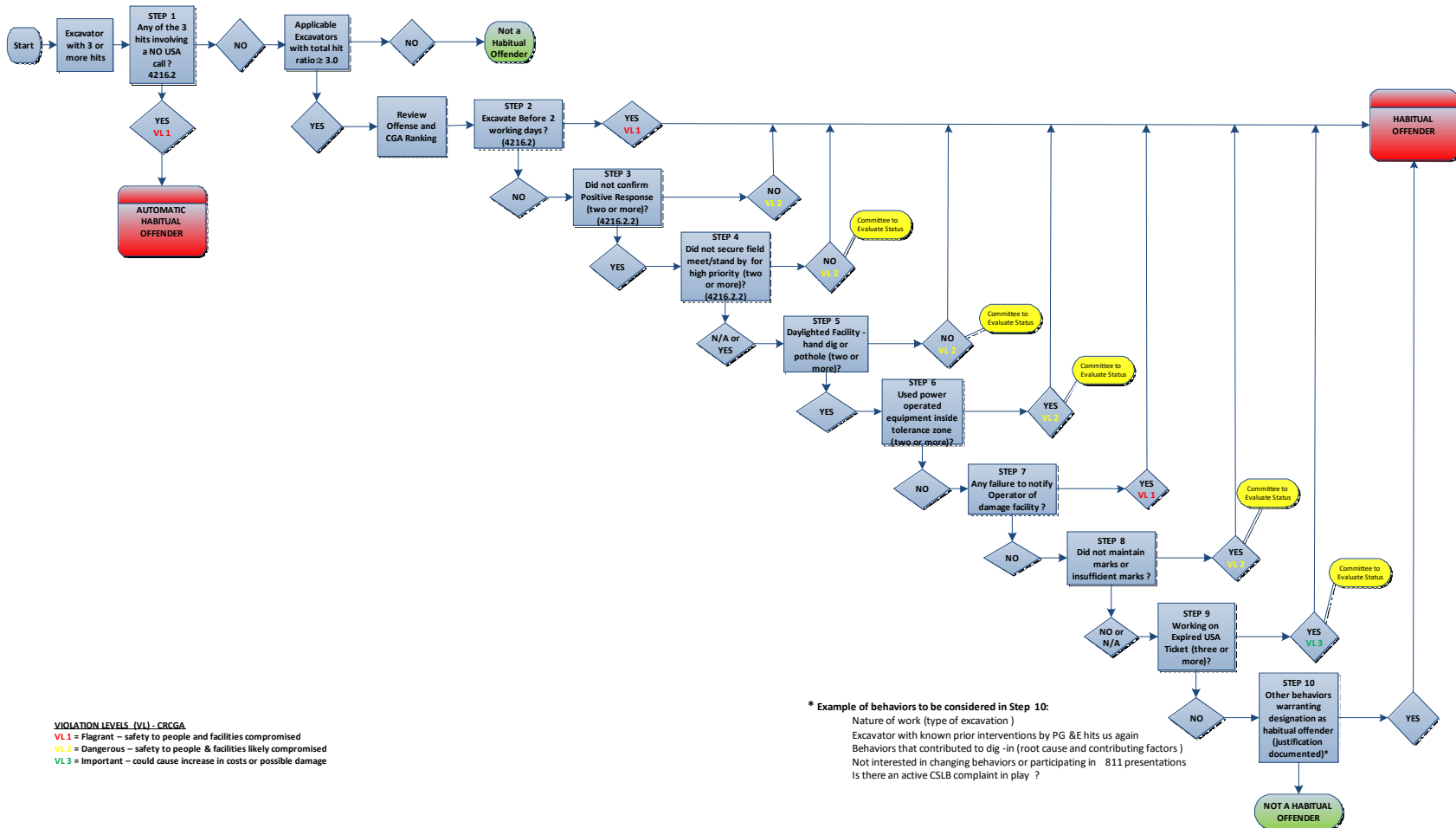
DRAFT - For discussion and review

Version 3

Habitual Offender Program

Work Flow Process for Identifying the Habitual Offenders and Risk Rank based on CARCGA

Most recent 12 month period data



AFFECTED PUBLIC

- 2 Gas safety bill inserts to all customers
- 4 bill inserts to new gas customers
- 2 Gas safety e-Campaigns to e-Bill customers
- Mailer to residents and business located within 1,000 feet of un-odorized segments of transmission lines
- Right of Way Mailing to businesses and residents located within 1,000 feet of transmission lines
- Storage & Compressor Station Mailing to businesses and residents located within 1,000 feet of storage facilities or compressor stations
- Gas Gathering Mailing to businesses and residents located within 1,000 feet of gathering lines
- Homeowner Association Campaign
- Asian Language Media Campaign
- Industry Sponsor of Sonoma Race/Shell 811 NasCar
- e-Campaign to school officials
- 811 Day National Industry Media Campaign
- Industry sponsor of JJ Harrison-Rodeo Clown

EXCAVATORS

- Emergency responder resource packet fire agencies, law enforcement agencies, 911 Centers and emergency management contacts
- Emergency Responder training, drills, mailings
- Fire Department Instructors Conference – co-hosted booth as member of Pipeline Operators Safety Partnership

EMERGENCY RESPONDERS

- Emergency responder resource packet fire agencies, law enforcement agencies, 911 Centers and emergency management contacts
- Emergency Responder training, drills, mailings
- Fire Department Instructors Conference – co-hosted booth as member of Pipeline Operators Safety Partnership

PUBLIC OFFICIALS

- Public Official Newsletter

SAFETY OUTREACH BY STAKEHOLDER AUDIENCE

Metrics	September Touch Points	YTD Touch Points
Affected Public-ROW mailing	327,908	327,908
Affected Public-LDC bill inserts, e-campaigns	190,956	4,720,339*
Excavator-web hits, meetings, culver materials	693	214,487
Schools-web hits, culver materials	1,294	375,918
Emergency Responders		144

***Does not include media 811 impressions or reach*



Gold Shovel Standards and Ambassador Programs

Gold Shovel Standards Program: This is an external program, where an established set of standards must be met as a prerequisite for a contractor to do work for PG&E for excavation-related tasks subject to the requirements of Government Code 4216 (the California “One Call” law).

- This new program is designed to reduce “dig-ins” and other potential damage-inducing activities, thus protecting PG&E’s underground gas and electric infrastructure. Through this program, contractors who wish to do excavation-related work for PG&E must meet and adhere to several prerequisite terms and conditions for safe excavation. The prerequisites are largely predicated on the requirements of Government Code 4216, CalOSHA contractor safety standards and Common Ground Alliance best practices.
- A contractor which has been identified as a current “habitual offender” in the Habitual Offender Program cannot, by definition, be worthy of a “Gold Shovel.”
- By establishing and executing this program, PG&E will set the bar for the industry, cause other operators similarly situated to follow PG&E’s lead, promote the interest of legislators and government executives, and, most importantly, enhance public safety and protect the environment. As this program gains momentum, it can potentially evolve into industry-wide best practices, and the maintenance and governance of the Gold Shovel standards could similarly evolve to an industry-level forum.

Ambassador Program: This is an internal development program designed to reduce “dig-ins” and other potential damage-inducing activities by leveraging each and every PG&E employee – all 22,000 – as a potential promoter of the Damage Prevention and Public Awareness efforts, and, specifically, to enable those employees to:

- Acquire basic awareness, knowledge, appreciation, and insight regarding the California One-Call laws;
- Speak intelligently and with authority as to the One-Call laws;
- Recognize circumstances when the One-Call laws are (or may have been) violated; and
- Understand the need to timely address or report problems to the appropriate elements within the company.

This is an external program designed to reduce “dig-ins” and other potential damage-inducing activities by homeowners. The goal is to inspire HOAs to include in their charters, by-laws, or rules terms and provisions which require compliance with Government Code 4216.

When a HOA incorporates appropriate terms in its charter, by-laws, or regulations, an individual home-owner that fails to comport with such terms is subject to sanctions administered by the HOA. It is in the best interest of the HOA, and thus the HOA is highly motivated, to enforce such terms for the safety and security of all in the neighborhood.

Over time, the momentum for HOAs to incorporate appropriate terms in charters, by-laws, or rules will likely grow. The leaders and individual members of these accepting HOAs, who tend to be relatively influential taxpayers, may serve to steer legislative/regulatory initiatives applicable to homeowners. Simply, HOAs can be catalysts and conduits for terminating the homeowner exemption.

- Efforts to gain support for more specific enforcement legislation has stalled
- Proposed legislation's current state is a request for more data
- Given this, we have conducted many meetings to discuss enforcement with:
 - California State Licensing Board
 - Cal-OSHA
 - CPUC
- We've had significant success in the last 45 days

- **CSLB**

- Filed 14 complaints, with 12 contractors reaching out to us for resolution
- CSLB published an article in their summer 2013 Newsletter to the contractor community regarding One-Call laws. Distributed to over 85,000 contractors.
- Video Testimonial developed emphasizing the importance of calling 811.
- Significant uptick in USA tickets generated by the 14 companies complaints were filed against.

- **Cal/OSHA**

- Met with Chief Enforcement Officer to discuss 811 regulation and the need for their support. They have pledged their support in two ways: contractor outreach and enforcement.

- **CPUC**

- Senator Hill will stat workshops with stakeholders regarding damage prevention legislation.

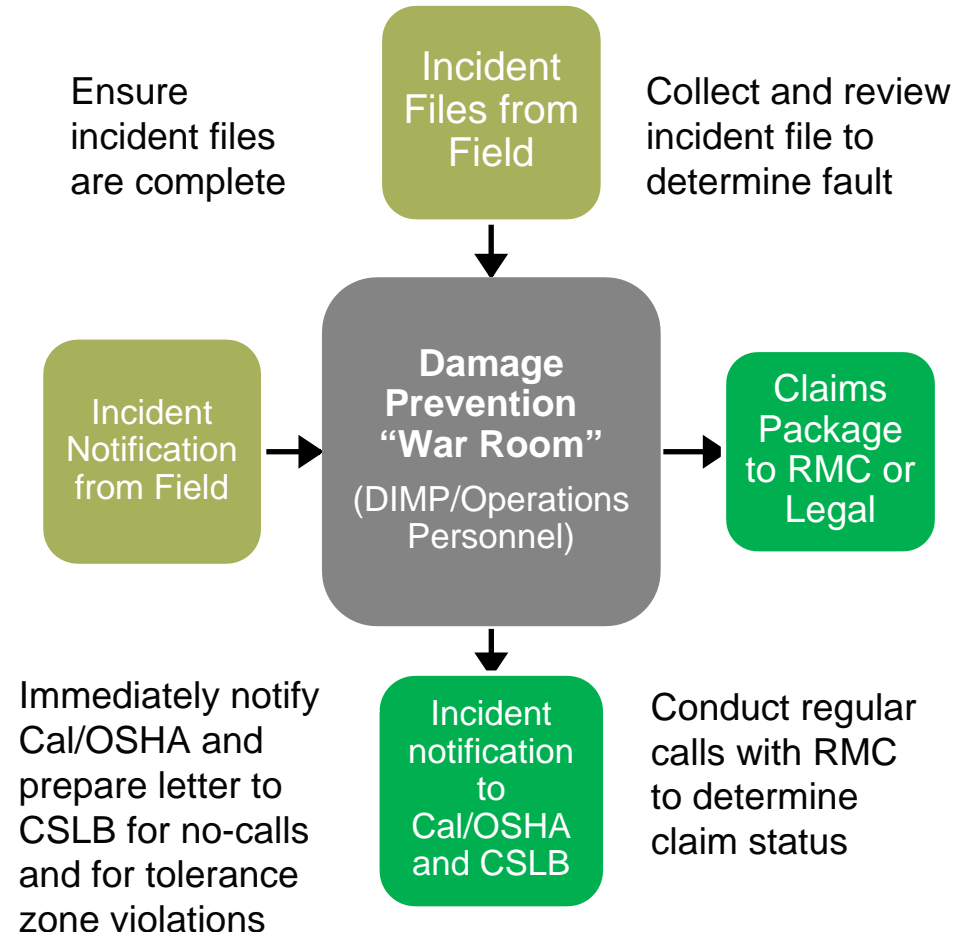
Establishment of a Damage Prevention “War Room”

Engaging Cal/OSHA and California State Licensing Board around 811 “No Calls”

- Making “real-time” outreach to Cal/OSHA when confirmed “no-call damages” occur
- Requesting investigation by licensing board into incidents, with request for enforcement

Streamlining the Claims Process

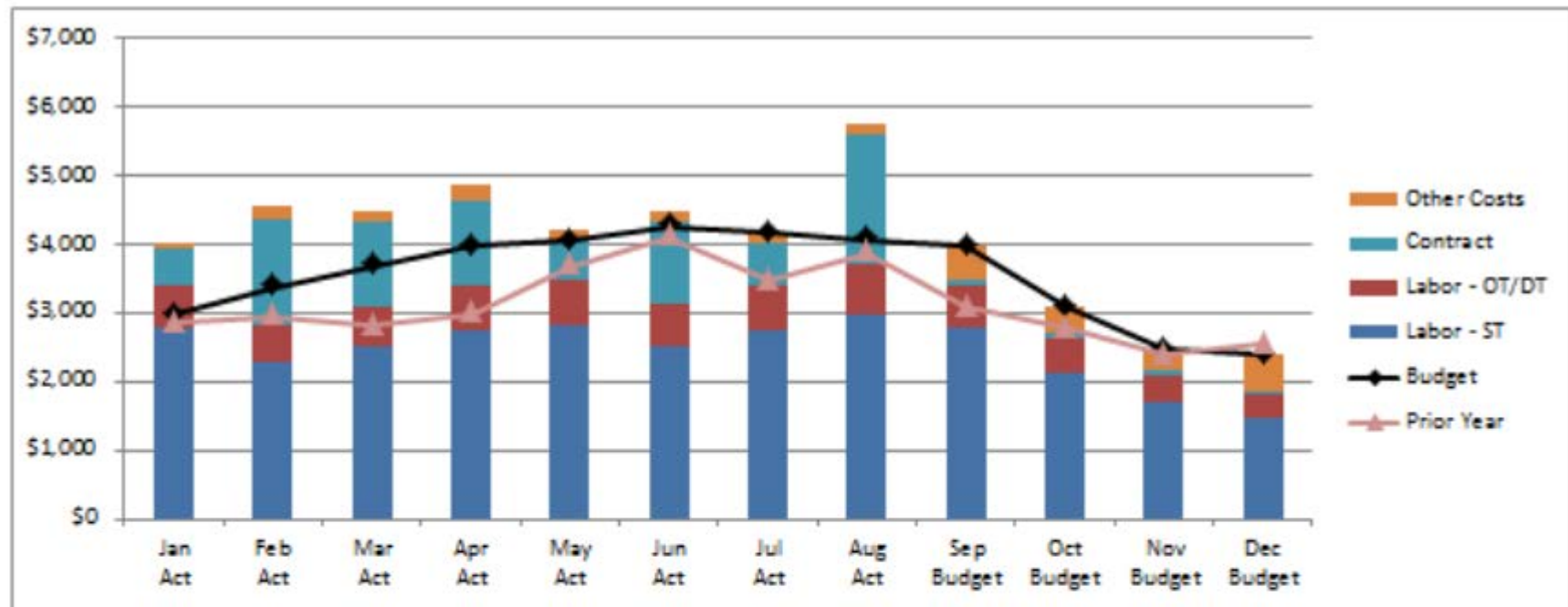
- Reviewing each submittal in the “War Room” to eliminate delays, improve billing accuracy, identify excavators with multiple claims
- Eliminate non-value-added steps, such as “gas loss calculations for small pipe
- Fast-track high-value damages to Law



Asset Management	Standards & Policies	Operations	Law	Customer Care	Corporate Affairs
Damage Prevention Process					
<p>Deploy Tablets to Locators</p> <p>Improve Construction Mapping Practices</p>	<p>Clarify Work Procedures</p> <p>Improve Field Audits</p> <p>Deploy Caution Tape</p> <p>Improve Training Quality</p> <p>CGA Best Practices Gap Analysis</p> <p>Standardize Tooling</p> <p>Revisit Gas Service Design</p>	<p>Reduce Employee "Churn"</p> <p>Establish Repeat Offender Program</p> <p>Increase Use of "Standby" Personnel</p> <p>Accelerate Claims Processing</p> <p>Develop Locate/Mark Labor Strategy</p> <p>Establish "Damage Prevention War Room"</p>	<p>Standardized Claims Package</p> <p>Accelerate Legal Involvement in Large Claims</p> <p>2013 Recovery Rate improved to 95%</p>	<p>Support Deployment of Enhanced Public Awareness Program</p>	<p>Support Legislation Regarding Violators</p> <p>Pursue "USA Before Permit" Concept</p> <p>Deploy Enhanced Public Awareness Program</p> <p>Engage Cal/OSHA and CSLB Directly over no-call damages and tolerance-zone violations</p>

Note: **Bold** indicates 2013 priority initiatives; **GREEN** indicates complete; **BLUE** indicates in progress;

Financial Results Require Improvement



	YTD			Annual			Run Rate
	Actual	Budget	Variance	Budget	Forecast	Variance	
Distribution							
DF/ Locate & Mark	\$26,355	\$24,604	(\$1,752)	\$33,423	\$37,400	(\$3,977)	\$39,533
DFE Standby	\$1,792	\$835	(\$956)	\$1,259	\$1,400	(\$141)	\$2,687
# Not Assigned	\$1,202	\$759	(\$443)	\$1,140	\$1,400	(\$260)	\$1,803
Total Distribution	\$29,349	\$26,198	(\$3,151)	\$35,821	\$40,200	(\$4,379)	\$44,023
Transmission							
DF/ Locate & Mark	\$1,951	\$1,513	(\$437)	\$2,380	\$2,750	(\$370)	\$2,926
DFE Standby	\$5,149	\$2,738	(\$2,411)	\$4,123	\$5,500	(\$1,377)	\$7,724
Total Transmission	\$7,100	\$4,251	(\$2,849)	\$6,503	\$8,250	(\$1,747)	\$10,650
	\$36,449	\$30,449	(\$6,000)	\$42,324	\$48,450	(\$6,126)	\$54,673

1. Drive a significant increase in productivity and reduction in unit cost

Working with IBEW on a revised “Line of Progression” for this and most other workers in Gas Operations
Assigned strongest supervisor to standardize management of field resources

2. Publish New Damage Prevention Manual

Clarifies and simplifies procedures
Provides a great reference document

3. Eliminate entire backlog of damage claims

Revised process “fast-tracks” large claims to legal
Establishment of a “Damage Prevention War Room” gives us a two-week turnaround



4. Improve construction practices

Require “post-construction locate” of all plastic pipe

5. Develop plan to identify and locate “un-locatable” facilities

Deploy “un-locatable pipe strike team” so that locators can focus on production work

6. Drive changes at USA North

We need 24/7 coverage as well as charge-per-ticket approach

- Review “standby” program, particularly around GT work (underway)
- Productivity Review for each yard (75% complete)
- Payroll verification (ongoing)
- Ticket count review (complete)
- Insourcing of Locate and Mark Work (75% complete)

EXHIBIT 52

From: Kubota, Jodie
Attendees: Whitmer, Vincent E; Burrows, Jennifer L; Kubota, Jodie; [REDACTED]
Location: 6121 Bollinger Canyon Rd. San Ramon CR Z-3462
Subject: Late Ticket QM Review
Start Time: Tue 5/24/2016 3:30:00 PM (UTC-07:00)
End Time: Tue 5/24/2016 4:30:00 PM (UTC-07:00)
Required Attendees: Whitmer, Vincent E
Optional Attendees: Burrows, Jennifer L; Kubota, Jodie; [REDACTED]

Requested by:
Jesus Soto

Participants:
Jesus Soto
Vince Whitmer
Jennifer Burrows (optional)
Jodie Kubota (optional)

Purpose:
* Review the late ticket QM analysis.

Materials:
Vince to bring examples and other supporting info

Organized by:
Jodie Kubota
408-505-3590

EXHIBIT 53

From: [REDACTED]
Required Attendees: Soto Jr., Jesus; Jue, Donnie; Abercrombie, Shonda; Amparano, Dominick; Walker, Steven; Gas Ops GTDO Locate and Mark Supervisors; Kubota, Jodie; Carroll, Jeff
Optional Attendees: Sigler, Cheryl; Narte, Frank; DeJarnette, Mike; Humphrey III, Donnie; Mayfield, Adam; [REDACTED]; Murphy, Scott; McCallan, Tamara
Location: Participant Dial-In: 1-800-603-7556, Conf Code: 3201 7169, Jesus will host
Subject: AGA Peer Review Follow Up with L&M Leadership
Categories: Conference Call
Start Date/Time: Fri 3/31/2017 10:30:00 AM
End Date/Time: Fri 3/31/2017 11:00:00 AM

Please do not forward this meeting invite. If you feel that someone has been omitted from the original invite list, please contact Cheryl Sigler at 925.244.3945.

Requested by:
Jesus Soto

Participants:
Gas Ops GTDO Locate and Mark Supervisors
Shonda Abercrombie
Dominick Amparano
Jeff Carroll
Donnie Jue
Jodie Kubota
Jesus Soto
Steven Walker

Purpose:
Discuss the AGA Peer Review session and Late Tickets for Locate & Mark

Materials:
None at this time

Dial-In:
Participant Dial-In: 1-800-603-7556, Conf Code: 3201 7169, Jesus will host

Organized by:
[REDACTED] | Pacific Gas and Electric Company | Assistant to the SVP-Gas Operations | O [REDACTED] | F [REDACTED] | [REDACTED]

EXHIBIT 54

Late Ticket Logic

Meeting with SED

June 1, 2018

Late ticket logic: Agenda

- Ticket structure
- Challenges
- Approach
- Examples

Late ticket logic: Ticket structure and Challenges

- Ticket structure
 - Ticket is issued with a system due time
 - Locator selects a response from a pre-determined list
 - Response time is recorded
 - Locator may enter notes
- Challenges
 - Nearly four million tickets over a five-year period
 - More than one response may be entered
 - Responses may or may not indicate that the ticket was resolved
 - System due time typically remains unchanged
 - Varying amount of information provided in notes

Late ticket logic: Approach

- Approach
 - Sufficient response approach
 - ◆ Sufficient response
 - *Facility Marked, No Conflict, No Remark Required*
 - ◆ Insufficient response
 - *Inclement Weather, Expired Ticket*
 - ◆ Sufficient response, provided additional information is present
 - *Respond to a Phased Ticket, Field Meet Requested, No Response from Excavator*
 - Positive contact required to establish new start time
 - *Notification of New Start Time*

Ex. 1: Proper *Notification of New Start Time* - TIMELY

- Taken time: 1/23/15 1:20 PM
- Due time: 1/27/15 5:00 PM
- Response 1: *Field Meet Requested*, 1/27/15 12:47 PM
 - Note: None provided.
- Response 2: *Notification of New Start Time*, 1/27/15 1:26 PM
 - Note: NEW START DATE/TIME COMMUNICATED TO EXCAVATOR. SPOKE WITH [REDACTED]. WAITING ON PERMIT SO ANYTIME THIS WEEK IS FINE. CHECK IF MARKS ARE STILL VALID.
 - Accepted new start time: 1/30/15 3:26 PM
- Response 3: *Facility Marked*, 1/29/15 11:55 AM
 - Note: PLACED FLAGS.; MARKED SECONDARY ELECTRIC. -; MARKED GAS MAIN.; MARKED GAS SERVICE.; MARKED BRANCH SERVICE; PLACED OFFSETS.; PAINTED.; PHOTOS TAKEN

Ex. 2: *Notification of New Start Time* without terms - LATE

- Taken time: 2/21/13 12:41 PM
- Due time: 2/25/13 5:00 PM
- Response 1: *Notification of New Start Time*, 2/25/13 11:54 AM
 - Note: CALLER [REDACTED] CALLED ME THIS MORNING AT ABOUT 5:59 AM ON 2-25-13, AND HE TOLD ME THAT HE WAS GOING TO BE IN TRAINING ALL DAY AND THAT MAYBE WE CAN SET-UP FLD. MEET FOR TUES. THE 26TH. I CALLED HIM BK. AT 6:50 AM ON SAME DATE TO LET HIM KNOW THAT I RECEIVED HIS MESSAGE, AND TO CALL ME WHEN HE GETS A CHANCE TO SET-UP FLD. MEET.
 - Attempted new start time: 2/26/13 11:54 AM
- Response 2: *Canceled Ticket*, 2/28/13 8:07 AM
 - Note: ** CANCELED TICKET ** CALLER [REDACTED] CALLED ME BK. AT 8:05 AM ON 2-28-13, AND HE TOLD ME JOB IS CANCELED.

Ex. 3: *Notification of New Start Time* without contact - LATE

- Taken time: 3/2/15 4:20 PM
- Due time: 3/5/15 7:00 AM
- Response 1: *Notification of New Start Time*, 3/5/15 6:22 AM
 - Note: None provided
 - Attempted new start time: 3/5/15 6:22 PM
- Response 2: *Notification of New Start Time*, 3/5/15 6:43 AM
 - Note: THE EXCAVATORS VOICEMAIL BOX WAS NOT SET UP FOR A VOICEMAIL. CALLED TWICE
 - Attempted new start time: 3/5/15 6:43 PM
- Response 2: *Facility Marked*, 3/5/15 8:33 AM
 - Note: MARKED PRIMARY ELECTRIC.; MARKED SECONDARY ELECTRIC. -; PAINTED.; PHOTOS TAKEN

Ex. 4: Proper *Respond to a Phased Ticket* - TIMELY

- Taken time: 2/1/13 8:07 AM
- Due time: 2/5/13 5:00 PM
- Response 1: *Respond to a Phased Ticket*, 2/2/13 2:24 PM
 - Note: HAVE TO GET MAPS OF NEW PIPE.ARB JUST WENT THRU AND REPLACED
- Response 2: *Respond to a Phased Ticket*, 2/5/13 2:24 PM
 - Note: CONTACT NAME:SPOKE TO [REDACTED] TO LET HIM KNOW I WILL BE WORKING TO STAY AHEAD OF JOB.
- Response 3: *Facility Marked*, 2/8/13 3:42 PM
 - Note: MARKED GAS MAIN.; MARKED GAS SERVICE.; PAINTED.; PLACED OFFSETS.; PHOTOS TAKEN

Ex. 5: *Respond to a Phased Ticket* without terms - LATE

- Taken time: 11/6/13 9:49 PM
- Due time: 11/11/13 7:00 AM
- Response 1: *Respond to a Phased Ticket*, 11/8/13 3:52 PM
 - Note: WILL WORK AHEAD OF CREW TO MARK FACILITIES.
- Response 2: *Facility Marked*, 11/14/13 11:03 AM
 - Note: MARKED GAS MAIN.; MARKED GAS SERVICE.; PAINTED.; PHOTOS TAKEN. MARKED SVC TEES PER [REDACTED].

Ex. 6: *Respond to a Phased Ticket* without work/contact - LATE

- Taken time: 1/2/13 11:50 AM
- Due time: 1/4/13 5:00 PM
- Response 1: *Respond to a Phased Ticket*, 1/4/13 9:25 PM
 - Note: HEAVY CONSTRUCTION UNABLE TO LOCATE LEFT MESSAGE TO CUST.
- Response 2: *No Conflict*, 1/9/13 2:32 PM
 - Note: DIRECT CONTACT WITH EXCAVATOR.

Ex. 7: Insufficient response before due time - LATE

- Taken time: 6/9/15 9:15 PM
- Due time: 6/11/15 5:00 PM
- Response 1: *Inclement Weather*, 6/10/15 11:31 AM
 - Note: CANNOT COMPLETE TICKET DUE TO INCLEMENT WEATHER. WILL COMPLETE TICKET AS SOON AS WEATHER PERMITS.
- Response 2: *Facility Marked*, 6/17/15 11:58 AM
 - Note: MARKED PRIMARY ELECTRIC.; MARKED SECONDARY ELECTRIC. -; MARKED GAS MAIN.; MARKED GAS SERVICE.; PLACED FLAGS.; PLACED OFFSETS.; PAINTED.; PHOTOS TAKEN. NO SIGNAL ON STREETLIGHT CROSSING ON NORTH SIDE OF JOB MUST HAND DIG TO VERIFY FIRST, PICKING UP PRIMARY ON W SIDE OF JOB IN STREET AND OTHER ELECTRIC SIGNAL IN JT WITH GAS MAIN, PRIMARY ON E SIDE OF JOB WAS WITH WEAKER SIGNAL IN DIRT, HAND DIG TO VERIFY LOCATION. LOCATED GAS MAIN CROSSING OUTSIDE OF DELINEATIONS NEAR STAIRS AND TRANSFORMER ON NORTH SIDE OF JOB MARKED OUT TO SHOW DIRECTION. MARKED OUT .75 INCH STEEL SERVICE AND PRIMARY ELECTRIC NEAR STAIRS BEHIND BUSHES ON SOUTH SIDE OF JOB.

Ex. 8: Sufficient response followed by late response - TIMELY

- Taken time: 1/3/14 9:16 PM
- Due time: 1/8/14 8:00 AM
- Response 1: *Facility Marked*, 1/7/14 2:32 PM
 - Note: MARKED GAS MAIN.; MARKED GAS SERVICE.; MARKED SECONDARY ELECTRIC. -; PLACED FLAGS.; PLACED OFFSETS.; PAINTED.
- Response 2: *Expired Ticket*, 2/3/14 6:53 AM
 - Note: None provided.

Ex. 9: Insufficient responses entered before due time - LATE

- Taken time: 5/10/16 12:23 PM
- Due time: 5/13/16 8:00 AM
- Response 1: *No Response from Excavator, 5/13/16 7:12 AM*
 - Note: MESSAGE LEFT WITH EXCAVATOR. [REDACTED]
NO RESPONSE
- Response 2: *Notification of New Start Time, 5/13/16 7:24 AM*
 - Note: NEW START DATE/TIME NEGOTIATED WITH EXCAVATOR.
SEE NEW START TIME ABOVE.

EXHIBIT 55

PGE Past Due Ticket Listing

Statement of Work 201706080010

Contents

Development.....	3
General Information	3
Parameters.....	3
Sort	3
Columns	3
Report Logic	4

Request

PGE has requested for irth to modify the current Past Due Ticket Listing Report.

Customer Version

UtiliSphere Full Web

Development

General Information

Irth Solutions will create a new custom report for PGE. The report will be called: Past Due Ticket Listing

This report will be pointed to the production database and **will** be displayed under the Custom report category.

Parameters

Irth Solutions will add the following parameters to this custom report:

- Date Type
 - o Due Date Time
 - o Create Date Time
- Date From
- Date To
- One Call Center
 - o Multiple Select
- Registration Code
 - o Multiple Select
- Ticket Type Category
 - o Multiple Select
- Folder
 - o Multiple Select
- First Version Only
 - o Checkbox
- Exclude Weekends in number of days Past Due
 - o Checkbox

Sort

Irth Solutions will sort this report by the Ticket ID in Ascending order.

Columns

Irth Solutions will add the following columns to this report:

- Ticket ID
- Code

- Facility
- Date Time
- Locate Time
- Past Due
 - o Calculation of how long the item is Past Due
- Locator/Folder

Report Logic

irth Solutions will add the following logic to this custom report:

1. This report will include tickets that have no response and are past the due date time.
2. This report will include tickets that have an ongoing response and are past the due date time.
3. This report will include tickets that have a completed response but that completed response was after the due date time.

Note: As long as 3 attempts were made to contact the excavator prior to the due date and the ticket has a complete response, the ticket will not display in this report.

Document Version

Date of Change	Version	Description	User
6/22/2017	1	Initial SOW	



Price

Cost: \$5,670

Price expires on 6/30/2017

Terms

50% due upon signature and 50% due 30 days after delivery.

Delivery Date

The Delivery Date to test for this custom work will be on or before 8/31/2017.

Customer will have 30 days to provide written notice of any issues. After 30 days the SOW will be considered accepted.

Disclaimer

By executing this document below, parties, irth Solutions LLC. and customer have read, understand, and agree to the Scope of Work and it's in entirety throughout this document. Any change to the Scope of Work will result in additional fees as well as extend the delivery time frame.

IRTH Solut

By: _____

Name: _____

Title: _____

Date: _____

6-28-17

(Date)

PGE

By: _____

(Signature)

Donnie Jue

(Name typed or printed)

Director, Compliance Programs

(Title)

6/28/2017

(Date)

EXHIBIT 56

Locate & Mark IrthNet Enhancements

Gas T&D Operations

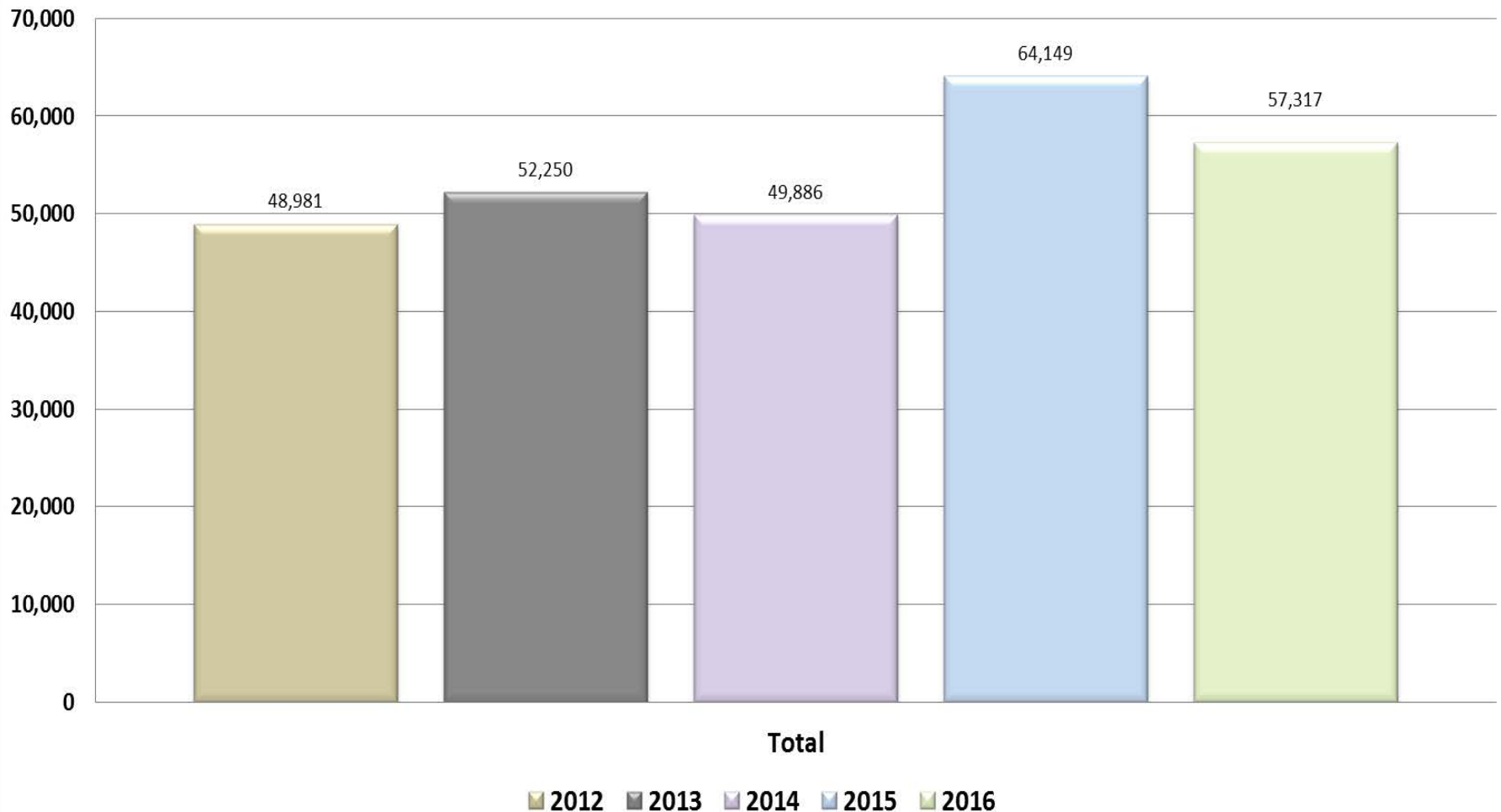
November 14, 2017



Together, Building
a Better California

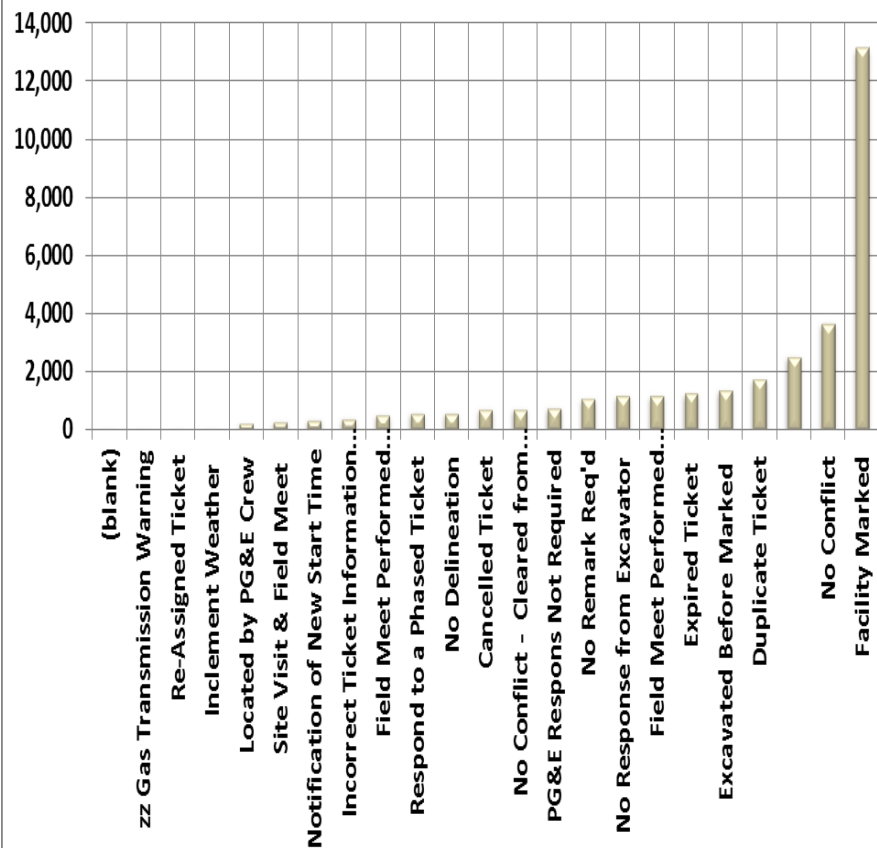
New Late Ticket Reporting 2012 - 2016

L&M, Historical 2012-2016, Late Tickets

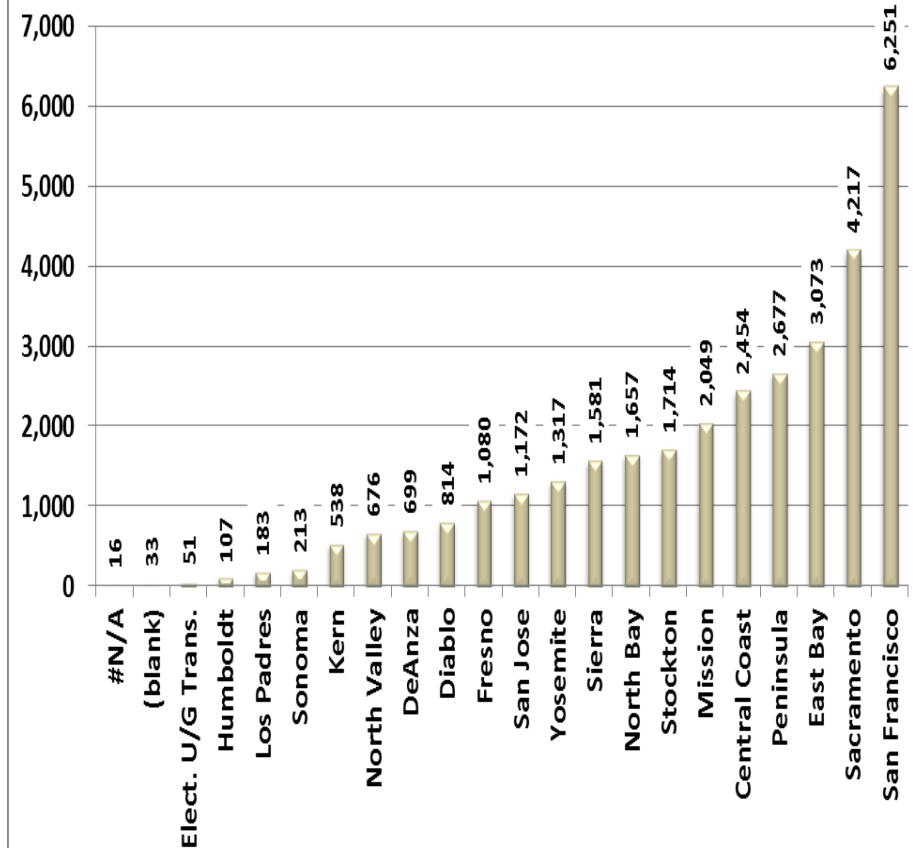


New Late Ticket Reporting 2017

L&M Late Ticket - Last Responses

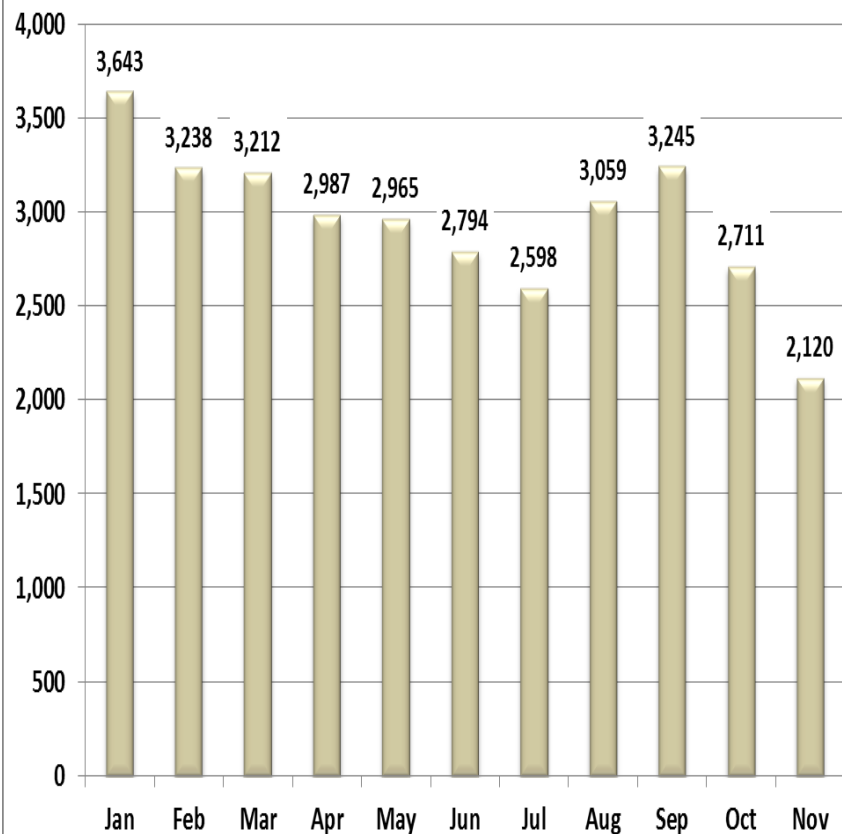


L&M Late Tickets - Division Counts

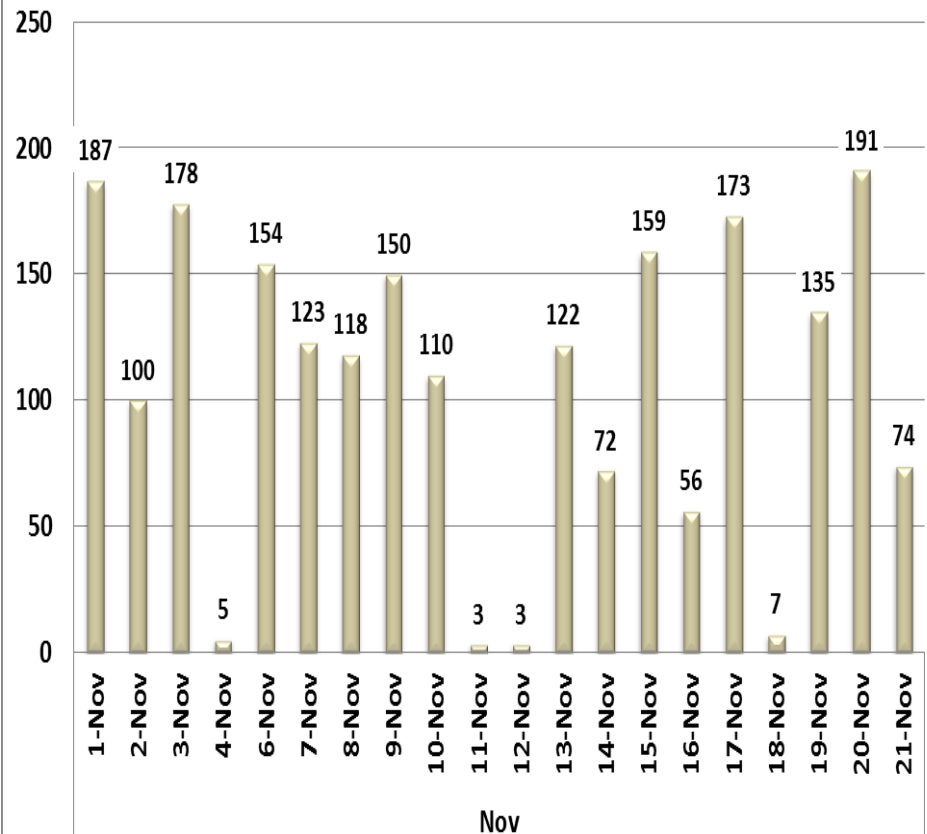


New Late Ticket Reporting 2017

L&M Late Ticket - Monthly Counts



L&M Late Ticket - November's Daily Trend





Options Removed

Registration Code: PGEMIL (USAN) Facility Type:

Ticket Folder: Trans. Milpitas Folder

Address: [REDACTED]

Locator: Walker, Steven Response: Notification of New Start Time

Locate Time: 10 / 26 / 2017 12 : 55 : 04 Units of Work: 0.0

New Start Time: 10 / 26 / 2017 12 : 55 : 04 Method of Contact: Voicemail

☒ Area Premarked? Name: Phone:

☐ Un-Locatable? ☐ Heavy Equipment?

Facility Types: ☐ GT ☐ GD ☐ ET ☐ ED ☐ FIBER PM #:

Arrived Time: 10 / 26 / 2017 12 : 55 : 04 Weather: dry Surface: asphalt

Gas Footage: Electric Footage:

Line Number: MP:

☐ Critical Facility? Standby? ☐ Yes ☐ No (Required)

Method Used: Conductive

Conductive Type: Valve

Direct connection is the required method to locate. All options must be exhausted before using inductive method to locate.

Save Cancel

Registration Code: PGEMIL (USAN) Facility Type:

Ticket Folder: Trans. Milpitas Folder

Address: [REDACTED]

Locator: Walker, Steven Response: Inclement Weather

Locate Time: 10 / 26 / 2017 12 : 55 : 04 Units of Work: 0.0

New Start Time: 10 / 26 / 2017 12 : 55 : 04 Method of Contact: Voicemail

☒ Area Premarked? Name: Phone:

☐ Un-Locatable? ☐ Heavy Equipment?

Facility Types: ☐ GT ☐ GD ☐ ET ☐ ED ☐ FIBER PM #:

Arrived Time: 10 / 26 / 2017 12 : 55 : 04 Weather: dry Surface: asphalt

Gas Footage: Electric Footage:

Line Number: MP:

☐ Critical Facility? Standby? ☐ Yes ☐ No (Required)

Method Used: Conductive

Conductive Type: Valve

Direct connection is the required method to locate. All options must be exhausted before using inductive method to locate.

Save Cancel

Phased Ticket Requirements

1. NEW! If you select the **Ongoing Response** option from the **Action** drop-down, and response **Respond to a Phased Ticket**, answer the three new questions shown here:

Ongoing Response

Response (required)
Respond to a Phased Ticket

Locate Time (must be in the past)

Unit of Work (numbers only)
0

☒ Area Premarked?

Are you On-Site? (You must be On-Site)
(Select ...)

Have you provided marks? (You must provide marks)
(Select ...)

Have you had positive contact with the excavator to review the Phasing Plan?
(You must review the Phasing Plan with the excavator)
(Select ...)

☐ Un-Locatable?

☐ Heavy Equipment?

Facility Types

Save Cancel



Phased Ticket Requirements

8. When you have completed logging the response, click the **Save** button.

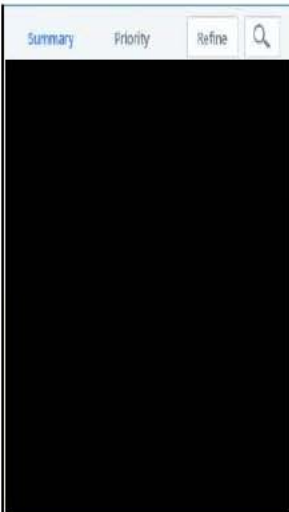




9. When you complete a Work Item click the **End Work** button.



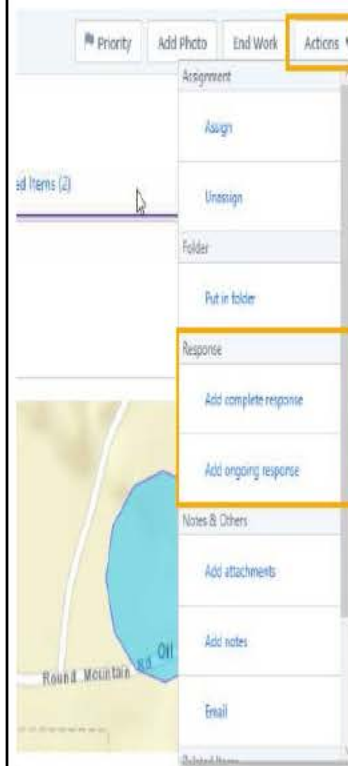
The Work Item disappears from the list after this step.

Start & End Work Requirement

Step	Action
1.	<p>From the Summary or Priority view, click the Work Item to select it.</p> 
2.	<p>Click the Start Work button.</p> 
3.	<p>Click the Yes button on the pop-up window.</p> 

1. When work is started on a Work Item, the **End Work** button appears and the response options are enabled on the Actions drop-down menu.

When you are ready to log a response on the Work Item, click the **Action** drop-down menu and select the appropriate option in the **Response** section of the menu.



Start & End Work Requirement

- | Step | Action |
|------|--|
| 5. | When you select a response, different fields appear in the Create Response dialogue box. Scroll down to see all answers. All fields marked as required must be completed to save a response. |

CHINA GRADE LOOP

Complete Response

Ticket ID: 322204
 Registration code: PGEFD (USAN)
 Address: CHINA GRADE LOOP AND TANKER RD

Locator
 Support, irth Solutions

Response (required)
 RESPONDING TO COMPLETE A PHASED TICKET

☒ Send Positive Response to Excavator?

Locate Time (must be in the past)

Unit of Work (numbers only)
 0

☒ Area Premarked?

☐ Un-Locatable?

☐ Heavy Equipment?

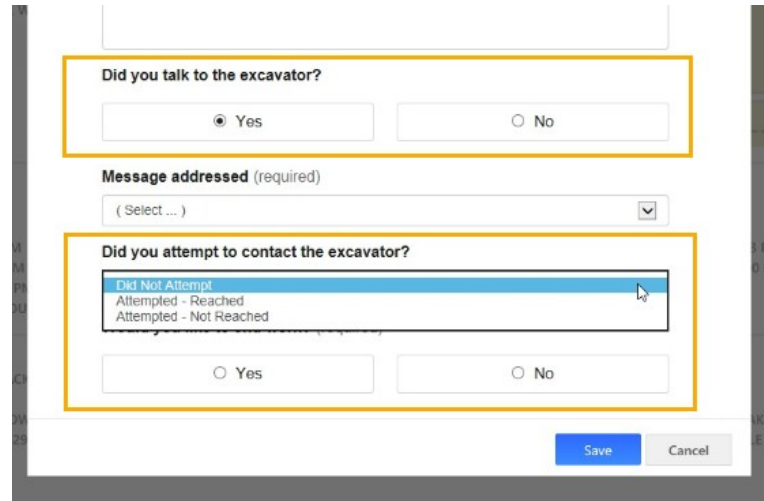
Facility Types
☐ GT ☐ GD ☐ FT

Save Cancel

Start & End Work Requirement

6.

NEW! In addition to fields required by the system, you must also complete the questions regarding contact with excavator. Respond the Yes or No questions and select the appropriate answer to the question.

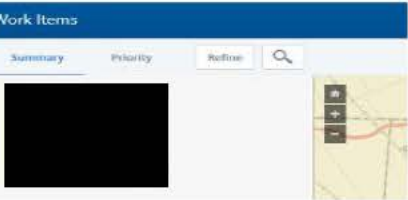
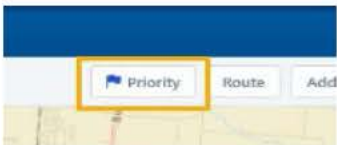




The screenshot shows a web form with the following elements:



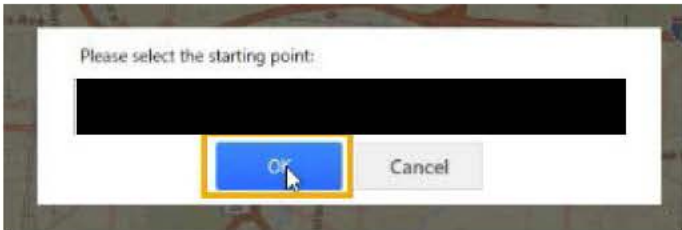
- A text input field at the top.
- A section titled "Did you talk to the excavator?" with two radio buttons: "Yes" (selected) and "No". This section is highlighted with a yellow border.
- A section titled "Message addressed (required)" with a dropdown menu showing "(Select ...)" and a checkmark icon.
- A section titled "Did you attempt to contact the excavator?" with a dropdown menu showing three options: "Did Not Attempt" (highlighted), "Attempted - Reached", and "Attempted - Not Reached". This section is highlighted with a yellow border.
- Below the dropdown menu are two radio buttons: "Yes" and "No".
- At the bottom right are "Save" and "Cancel" buttons.



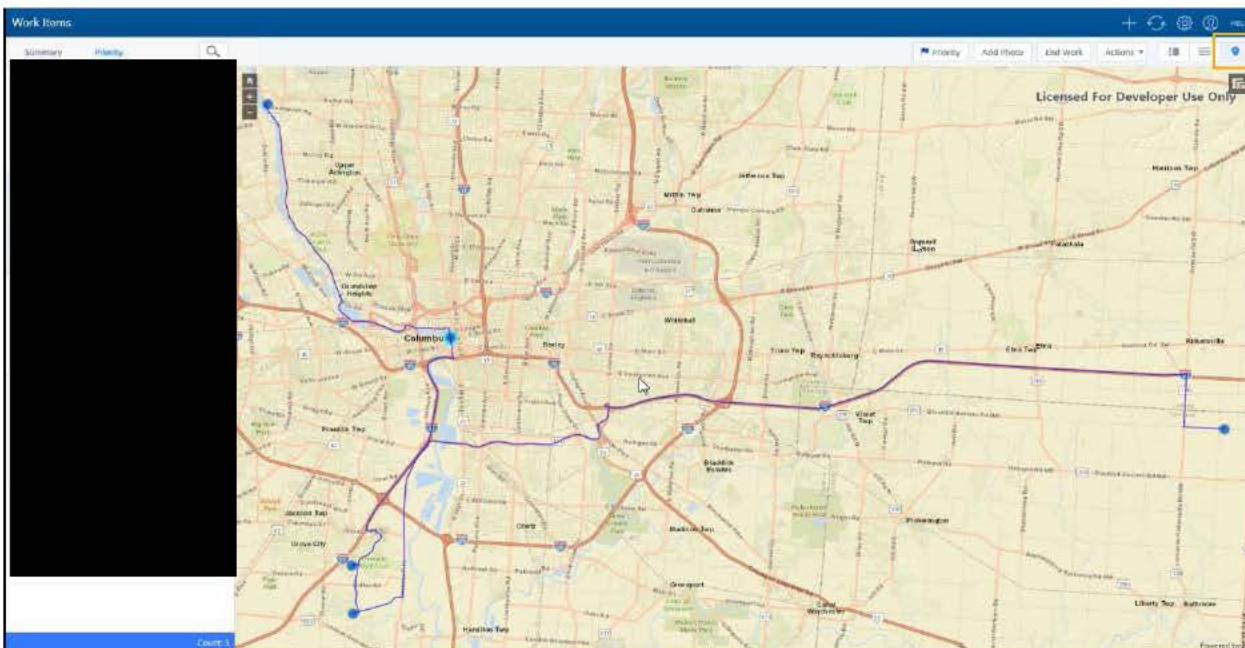
Ticket Routing

Step	Action
1.	<p>From the Summary view, click the top priority item to select it.</p> 
2.	<p>Click the Priority button on the upper right side of the screen.</p>  <p>The Priority flag and the Priority number is added next to the Work Item:</p>  <p>Repeat steps 1 and 2 until all priorities have been marked.</p> <p>You need to prioritize at least 3 items in order to build a route.</p> <p>Note: You may reorder priorities by grabbing the Work Item, drag it and drop it in the desired order. Grab the Work Item tab shown to the left of each item (rectangle of gray dots as highlighted below):</p> 
3.	<p>Navigate to the Priority tab from the Summary tab.</p>

Ticket Routing

Step	Action
4.	<p>To display the route, for all prioritized Work Items, click the Route button.</p> 
5.	<p>Select the starting point from the drop down on the pop-up window. The drop down shows locations of all your prioritized Work Items to select from.</p> 
6.	<p>Click the OK button to continue.</p> 



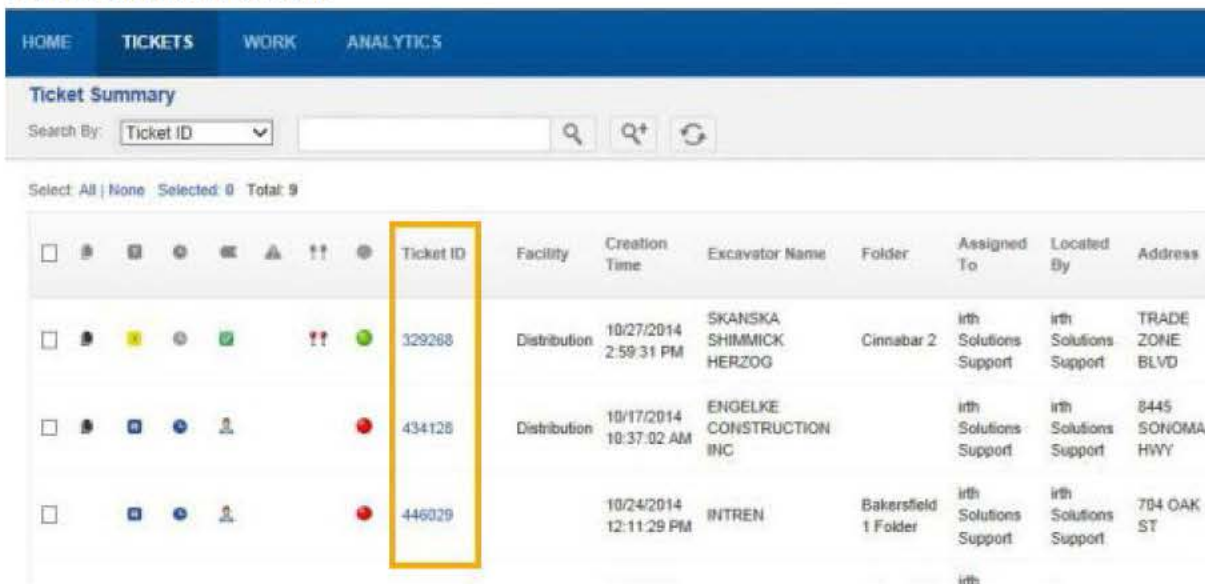
Ticket Routing

Step	Action
7.	<p>The route is optimized for all open Work Items assigned to you including Priorities and Standbys. The Route button disappears until new Work Items are assigned.</p> <p>If additional items are prioritized, click the Route button again to incorporate them to the route.</p> <p>Click on the Map icon to see the route.</p>  <p>Notes:</p> <p>There is no limit to the number of items you may have on the list.</p> <p>As Work Items are closed, they disappear from the list.</p>
8.	End of procedure.

Map of Users Location

Breadcrumbs

Use this procedure to access and review (activity details) for a Work Ticket.

Step	Action																																
1.	<p>From your IRTH desktop application, click the Tickets option at the top left corner of the screen.</p> 																																
2.	<p>Select the Ticket Summary view.</p> 																																
3.	<p>Select ticket from the list.</p>  <table><thead><tr><th>Ticket ID</th><th>Facility</th><th>Creation Time</th><th>Excavator Name</th><th>Folder</th><th>Assigned To</th><th>Located By</th><th>Address</th></tr></thead><tbody><tr><td>329268</td><td>Distribution</td><td>10/27/2014 2:59:31 PM</td><td>SKANSKA SHIMMICK HERZOG</td><td>Cinnabar 2</td><td>irth Solutions Support</td><td>irth Solutions Support</td><td>TRADE ZONE BLVD</td></tr><tr><td>434128</td><td>Distribution</td><td>10/17/2014 10:37:02 AM</td><td>ENGELKE CONSTRUCTION INC</td><td></td><td>irth Solutions Support</td><td>irth Solutions Support</td><td>8445 SONOMA HWY</td></tr><tr><td>446029</td><td></td><td>10/24/2014 12:11:29 PM</td><td>INTREN</td><td>Bakersfield 1 Folder</td><td>irth Solutions Support</td><td>irth Solutions Support</td><td>704 OAK ST</td></tr></tbody></table>	Ticket ID	Facility	Creation Time	Excavator Name	Folder	Assigned To	Located By	Address	329268	Distribution	10/27/2014 2:59:31 PM	SKANSKA SHIMMICK HERZOG	Cinnabar 2	irth Solutions Support	irth Solutions Support	TRADE ZONE BLVD	434128	Distribution	10/17/2014 10:37:02 AM	ENGELKE CONSTRUCTION INC		irth Solutions Support	irth Solutions Support	8445 SONOMA HWY	446029		10/24/2014 12:11:29 PM	INTREN	Bakersfield 1 Folder	irth Solutions Support	irth Solutions Support	704 OAK ST
Ticket ID	Facility	Creation Time	Excavator Name	Folder	Assigned To	Located By	Address																										
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446029		10/24/2014 12:11:29 PM	INTREN	Bakersfield 1 Folder	irth Solutions Support	irth Solutions Support	704 OAK ST																										

Map of Users Location

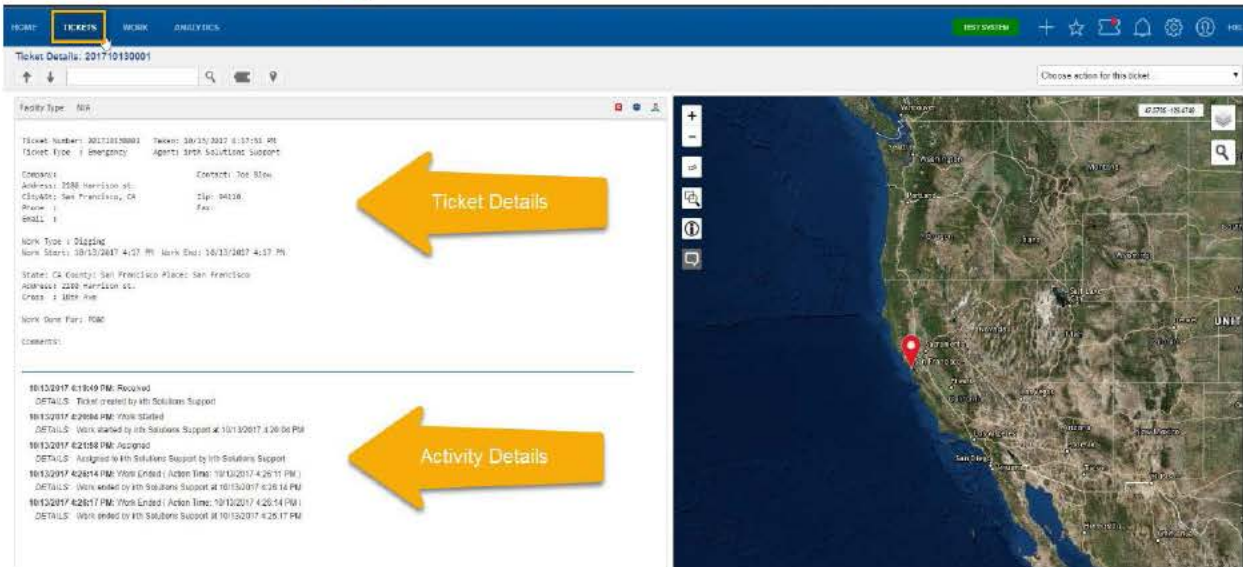




Step	Action
4.	<p>Information for the selected Ticket is organized in three panes:</p> <ol style="list-style-type: none"> 1. Ticket information – top left. 2. Activity details – bottom left includes lat/long for each recorded activity. 3. Map – right allows you to zoom in and select different map layers. 4. Select the Activity layer 
5.	<p>These icons are shown on the map to represent each activity:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Work Started</p> </div> <div style="text-align: center;">  <p>Work Ended</p> </div> <div style="text-align: center;">  <p>Response</p> </div> <div style="text-align: center;">  <p>Photo</p> </div> </div>
6.	<p>End of procedure.</p>

Photo Upload Enhancement

This enhancement allows the user the ability upload multiple photos from the camera without having to select the add photo action for each photo. Once all of the photos are captured, the user can select a specific photo thumbnail to delete if needed, prior to uploading the photos. After the photos are uploaded, the user can select a photo and add notes to the image.

- Image 1 is a photo that was successfully captured.
- The user can take as many photos needed before hitting the “check mark” in the lower right corner.
- User can perform a image review of all the photo’s after the “check mark” has been selected. User can select and delete any photos prior to uploading. Then select “confirm” to upload images.



Ticket “Auto Close” Function

Based on further review and feedback from the field we are placing a “HOLD” on the “Auto Close” feature to close a ticket if 3 attempts are made to the excavator without a response.

The team will review the functionality and develop a process/procedure on how it should be used and when before this feature is turned on.

“Go Live” Date and Time

Irth enhancements will “Go Live” on Friday night at 9:00pm. As with any technology upgrades there may be unanticipated issues that arise as a result of these enhancements. If you experience any issues please contact your Supervisor or Steven Walker with details of the problem.

Steven Walker
Gas Systems Administrator
Cell: 415-635-4497
Lan ID: S1Wr

Standby Resource Process

Standby Resource Process

1. Monitor Utilisphere Folder Daily
 - a. Look at notes on the field meet ticket and USA ticket
 - b. Check for scope of work
 - c. Make sure there is a "Critical Facility" in the work area.
 - i. If No, call contractor and advise standby is not needed.
 - ii. If Yes, Move to Step 2.
2. Call contractors to determine their needs while reviewing the calendar, map and field meet item.
 - a. If Contacted:
 - i. Attempt to minimize exposure to critical facilities when possible.
 - ii. Phase 1 – Target anything more than **2 Days long**
 - b. Negotiate scope and duration.
 - i. Remove resource from availability on calendar.
 - ii. Assign in IRTM to the standby inspector.
 - c. If scheduling after 5 pm for next day, send e-mail to standby inspector to notify of assignment, and request confirmation.
 - d. Color code for calendar as follows
 - i. **GRAY** unscheduled,
 - ii. **RED** Transmission,
 - iii. **GREEN** Dist. / Fiber Optic.
 - iv. **PURPLE** cancelled standby
 - e. OT for assigning standby
 - i. Contact L & M Supervisor and include Date, Time, Location, Duration of Standby, ask for all available resources and include deadline of request.
 - f. Schedule a time to meet excavator onsite when necessary.
 - i. Possible Use of Senior/Supervisor in area for scheduled and/or unscheduled field meets.

Standby Resource Process

- g. No contact:
 - i. Leave message for contractor: Your Name, Ticket number, your phone number, etc.
 - ii. Note Standby Item as of when you called and what number.
 - iii. 2nd attempt – this can be another call or possibly an email/text: Note Standby Item.
 - iv. Still no contact – assign to the Senior GCR in area for them to follow-up, if no response, Senior will close and move to DiRT team.
 - v. Send an email to the Senior GCR and copy their Supervisor.
- 3. If we move an inspector to another Region, send your request to standbyreq@eeintl.com.
 - a. Include the following:
 - i. Inspector's Name
 - ii. Work Location
 - iii. Duration
- 4. Timecard Approvals:
 - a. Contractor is to send timecard in by COB Friday of each week.
 - i. Send to EEI, and each Specialist who they worked for.
 - b. Resource Specialist is to review and approve timecards by 10:00AM each Monday.
 - i. If approved, include the following: Subject Line – "Timecard (Inspectors Name) (First Day of time period).
Example – "Timecard [REDACTED] – 7/31/17"
 - ii. Forward to union@eeintl.com also add any other Specialists who they worked for, Jason Gambill, and StandbyInspectorTimekeeping@pge.com

Stand-by Governance

Standby Governance Roll-Out Plan						
Division		Specialist		Contact Number		Planned Transition Date
Sierra/North Valley						Tuesday, December 05, 2017
Humboldt/Sonoma						Tuesday, December 12, 2017
Vacaville/Sacramento						Tuesday, December 12, 2017
Yosemite						Tuesday, January 09, 2018
Stockton						Tuesday, January 09, 2018
Fresno						Tuesday, January 09, 2018
Kern						Tuesday, January 09, 2018
East Bay						Tuesday, January 16, 2018
Mission						Tuesday, January 16, 2018
Diablo						Tuesday, January 16, 2018
North Bay						Tuesday, January 16, 2018
San Francisco						Tuesday, January 16, 2018
Central Coast						Tuesday, January 23, 2018
San Jose						Tuesday, January 23, 2018
De Anza						Tuesday, January 23, 2018
Peninsula						Tuesday, January 23, 2018
Los Padres						Tuesday, January 23, 2018

Field Meet Update

Field Meet Update

A minor update has been made to the “Field Meet Item Form”. Please see the below screen shot for the following updates:

Modify Field Meet

Required Only

Full Form

Meeting Date and Time (required)

11/17/2017 07:00 PM

Field Meet Performed With Who? (required)

Andrew

Phone Number? (required)

(989)359-2630

Standby Required? (required)

☒ Yes

☐ No

Excavator agrees to provide operator qualified Inspector to perform and document Field Meet/Standby (required)

☒ Yes

☐ No

L&M/Standby Inspector to Perform Standby (required)

☐ Yes

☒ No

Save

Close

This does NOT create a standby Item in Irth.

This does NOT create a standby item in Irth.

This is the ONLY option that will create a Standby Item in Irth.

Field Meet Update

Note – There have been additional responses added to this section. Here is an explanation of each selection and when to use it.

☐ “Standby Required?”

- o Has it been determined by the field meeting that a standby will be needed per PG&E procedural requirements? Yes or No?

- o If “Yes” is selected, then select ONLY 1 of the other “Yes” options.

- o If “No” is selected, then enter “No” for all other options.

- o Note – this will NOT create a standby Item in Irth.

☐ “Excavator agrees to provide operator qualified Inspector to perform and document Field Meet/Standby.”

- o This selection is intended to address PG&E Jobs (Eg. PG&E Crew or Contractor for PG&E) where they will be providing their own standby.

- o We will need to make sure to document the conversation we had with the excavator confirming they will be providing an Operator Qualified person to perform and document the field meet AND the Standby.

Enter these notes in the “Comments” section.

- o Note - selecting this option will NOT create a standby item in Irth.

☐ “L&M/Standby Inspector to Perform Standby”

- o This selection is for all jobs that will need to be assigned to a standby inspector/locator thru Locate & Mark.

- o This option MUST be used for ALL 3rd party excavations when standby is required.

- o This is the **ONLY** option that will create a standby Item that can/will be assigned by the clerks/Standby Governance Team.

Questions

EXHIBIT 57

L&M GAP Training

Guidance, Application, and Practices



Agenda

Day 1

- Intro / Safety
- Daily Work Plan
- Theory (In Class)
- Getac Josh
- Workshops (In Field)

Day 2

- Intro / Safety
- California Government Code 4216 (In Class)
- PG&E Ticket Responses (In Class)
- Field Meet Item Review (In Class)
- Workshops (In Field)

L&M References:

- Code of Federal Regulations:
 - 49 CFR 192.605
 - 49 CFR 192.614
- California Government Code 4216
- Procedures
 - TD-5811P-1100, 1200, 1300
- Field Training Guide (FTG)
- M60

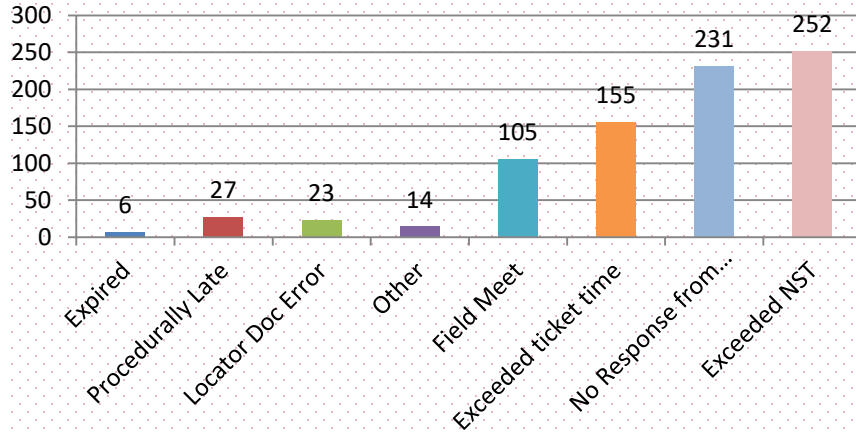
United Contractors recent meeting and feed back of PG&E Locate and Mark Department

ISSUE #5 – PLEASE HIGHLIGHT AREAS WHERE THE WORKING RELATIONSHIP WITH PG&E COULD BE IMPROVED

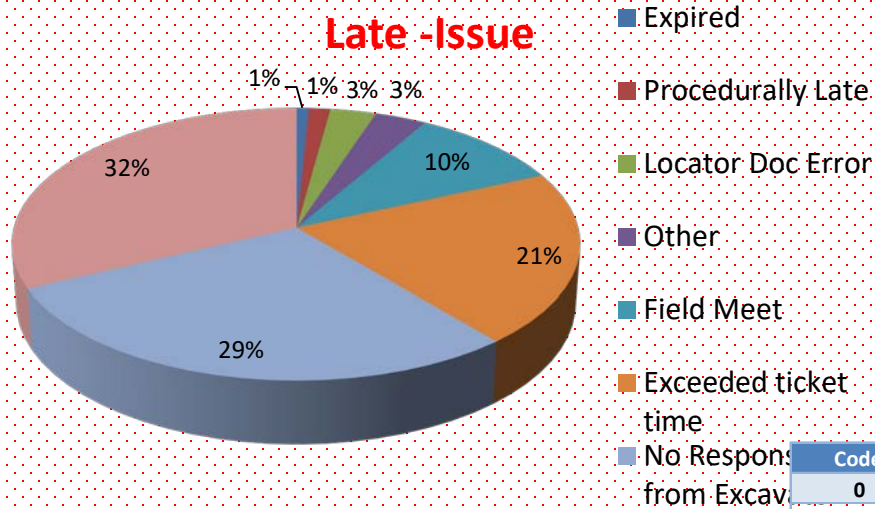
- PG&E should better manage the “queue” of L/M requests – numerous instances of L/M reporting at last minute
- San Francisco response times could be improved
- Some L/M staff seem to “interpret” Government Code 4216 to benefit them causing extra field meets to occur
- Occasional instances where confusion resulted over whether a line was or was not abandoned
- Stop trying to bully and quote practices as law, or give excuses
- All areas
- DIRT team members should not treat contractors as guilty until proven innocent – they need to be more neutral and focus on fact-finding
- L/M unit still seems understaffed – when contact is made a field meet is requested by PG&E to “buy” more time

Late Ticket Report

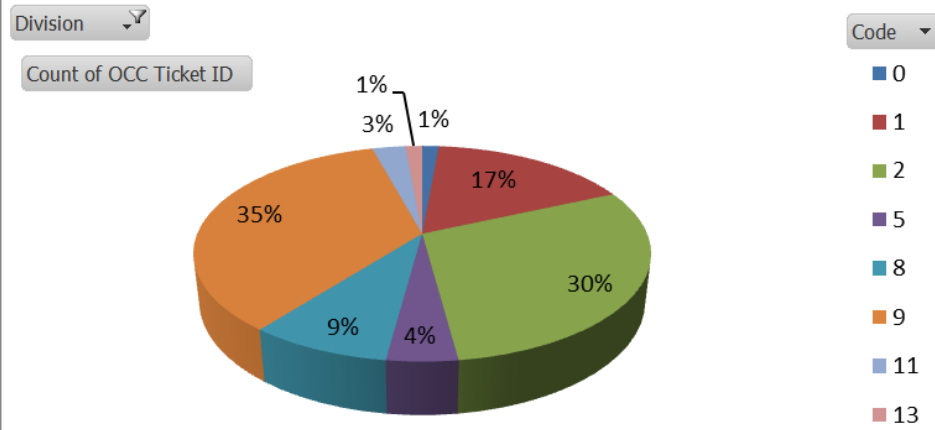
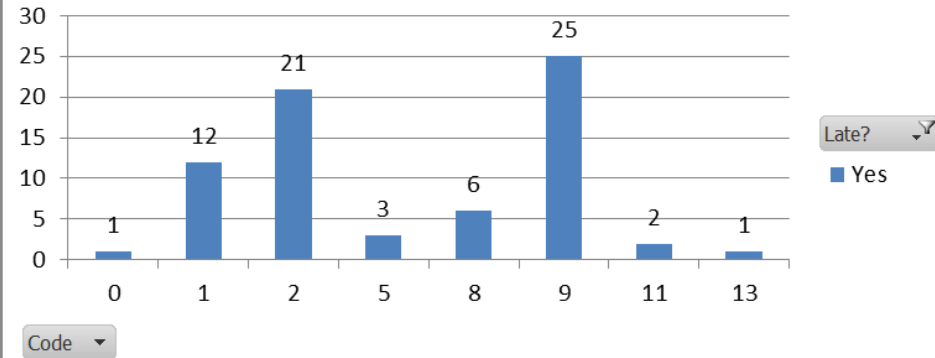
Late - Issue Type



Late - Issue



Stockton - Late Tickets

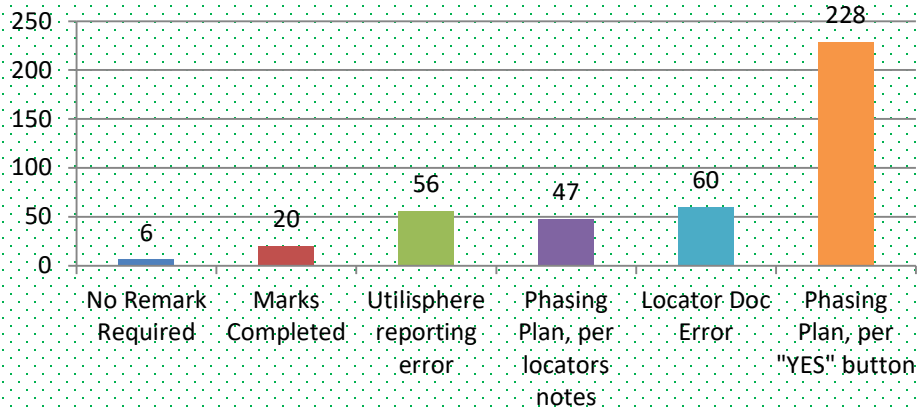


Code	Reason	Code	Reason
0	Other	8	No Response from Excavator
1	Exceeded ticket time	9	Field Meet
2	Exceeded NST	10	No Remark Required (Not Late)
3	Utilisphere reporting error (Not Late)	11	No Delineations (?)
4	Locator Doc Error (Not Late)	12	Expired
5	Locator Doc Error (Late)	13	Procedurally Late
6	Phasing Plan, per "YES" button (Not Late)	14	Marks Completed (Not Late)
7	Phasing Plan, per locators notes (Not Late)		

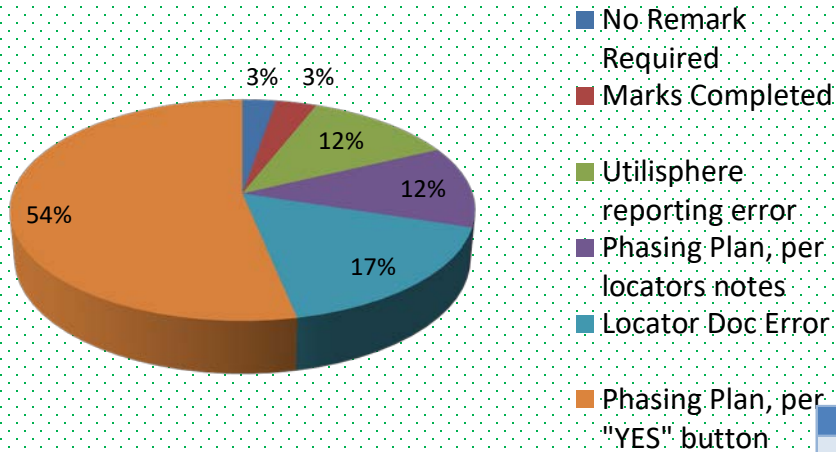


Late Ticket Report

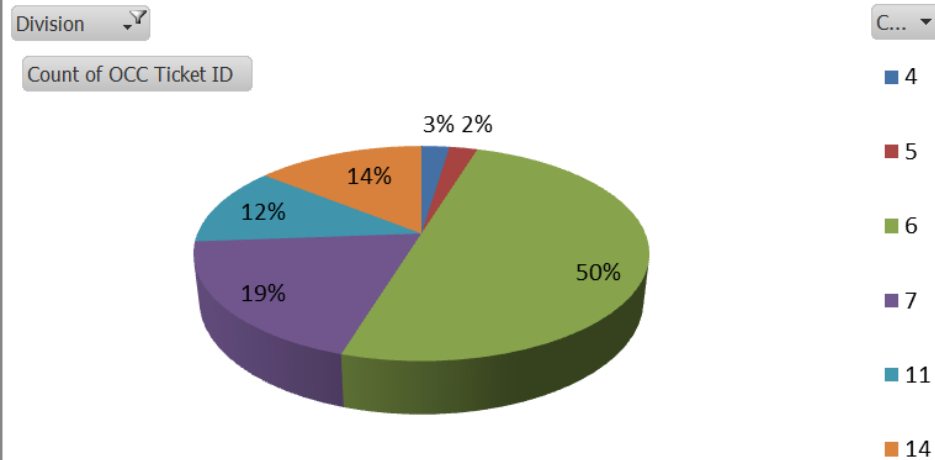
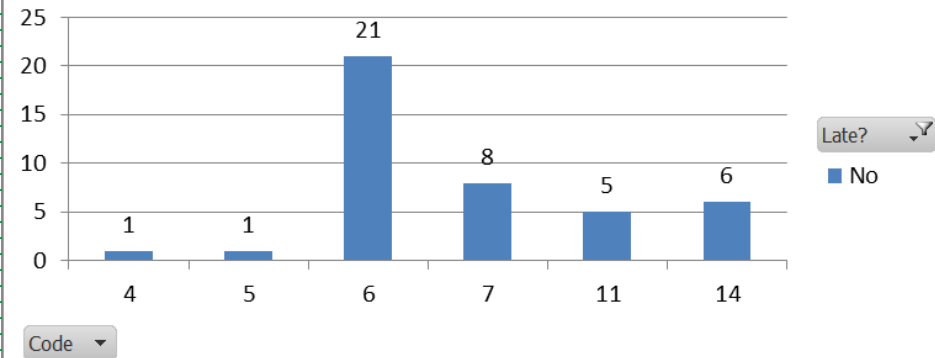
Not Late - Issue Type



Not Late - Issue



Stockton - Not Late



Code	Reason	Code	Reason
0	Other	8	No Response from Excavator
1	Exceeded ticket time	9	Field Meet
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6	Phasing Plan, per "YES" button (Not Late)	14	Marks Completed (Not Late)
7	Phasing Plan, per locators notes (Not Late)		



Daily Work Plan

Feb 15th - 139 Tickets Closed / 69 non-priority (50%) / 45 Two-days Out (32%)

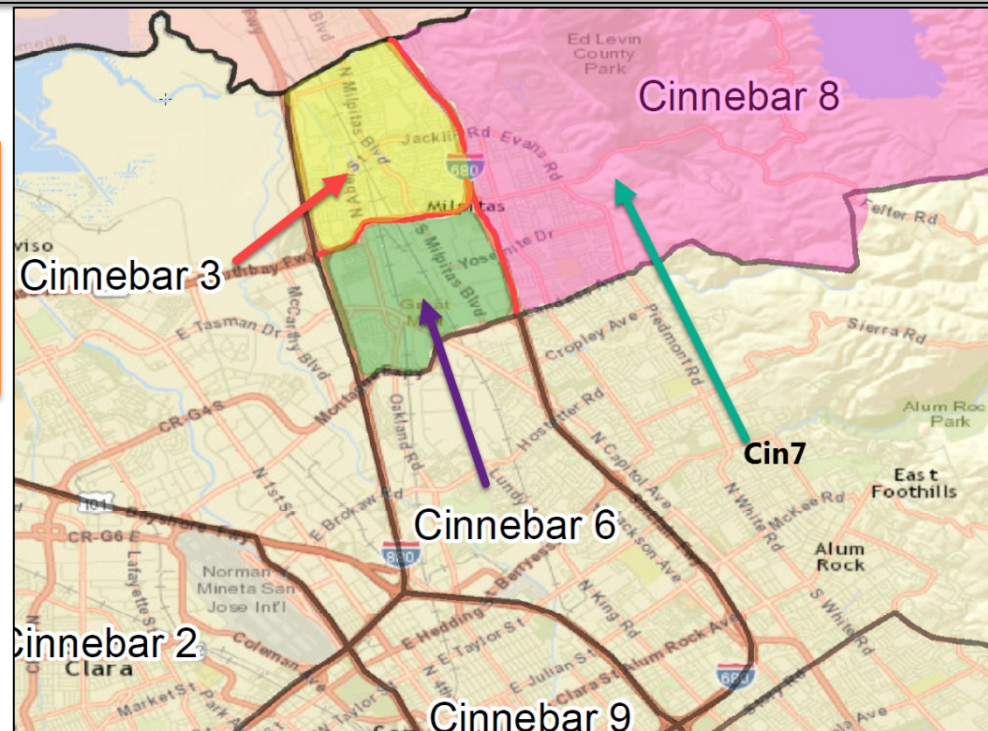
Ticket ID	Excavator Name	Done for	Work Type	Creation Time	Due Time	Last Response	Locate Time
W8044009	GOLDEN STATE UTILITY COMPANY	AT&T	DIRECTIONAL BORING TO INSTALL COMMUN	2/13/2018 15:10	2/16/2018 9:00	NO RESPONSE FROM EXCAVATOR	2/15/2018 15:24
X80460081	SAME	SAME	INSTALLING FENCE	2/15/2018 11:47	2/25/2018 3:00	NO CONFLICT - CLEARED FROM OFFICE	2/15/2018 14:05
X80460081	JOHNSONS TREE CARE INC	P/O DENNY	STUMP GRINDING	2/15/2018 11:49	2/21/2018 8:00	NO CONFLICT	2/15/2018 16:57
W8046006	PRISM ENGINEERING	CABLECOM	DIRECTIONAL BORING TO INSTALL UNDERG	2/15/2018 13:19	2/21/2018 8:00	FACILITY MARKED	2/15/2018 14:05
W8046000	AMM FENCING	P/O SUTTON	HAND DIG TO INSTALL FENCE	2/15/2018 8:18	2/21/2018 8:00	NO DELINEATION	2/15/2018 14:08
W8046001	AMM FENCING	P/O COTTER	HAND DIG TO INSTALL FENCE	2/15/2018 8:21	2/21/2018 8:00	NO DELINEATION	2/15/2018 12:44
W8046001	AMM FENCING	P/O GARLIK	HAND DIG TO INSTALL FENCE	2/15/2018 8:23	2/21/2018 8:00	NO DELINEATION	2/15/2018 12:38
W8046001	AMM FENCING	P/O MCREYNOLDS	HAND DIG TO INSTALL FENCE	2/15/2018 8:25	2/21/2018 8:00	NO DELINEATION	2/15/2018 12:50
X80460136	SONNIKSON & STORDAHL	EBMUD	HAND DIG TO REPLACE WATER METER BOXE	2/15/2018 14:59	2/20/2018 17:01	DUPLICATE TICKET	2/15/2018 15:57
X80460139	SONNIKSON & STORDAHL	EBMUD	HAND DIG TO REPLACE WATER METER BOXE	2/15/2018 15:02	2/20/2018 17:01	DUPLICATE TICKET	2/15/2018 15:59
X80460006	KING TRENCHLESS	SAME	SEWER LATERAL	2/15/2018 6:54	2/20/2018 17:01	NO CONFLICT	2/15/2018 16:30
W8046001	P/O HERTZFELDT	SAME	HAND DIG TO INSTALL MAIL BOX	2/15/2018 8:31	2/20/2018 17:01	NO CONFLICT	2/15/2018 9:46
X80460052	NORTHERN DIRECTIONAL DRILLING, INC.	SAME	DIRECTIONAL BORE TO INSTALL COMM CON	2/15/2018 10:16	2/20/2018 17:01	BAD TIX INFO - RESUBMIT	2/15/2018 12:57
X80460055	MR. PAVERS	SAME	INSTALLING PAVERSTONES ON BACK PATIO	2/15/2018 10:24	2/20/2018 17:01	CANCELED TICKET	2/15/2018 15:08
X80460055	MR. PAVERS	SAME	INSTALLING PAVERSTONES ON BACK PATIO	2/15/2018 11:02	2/20/2018 17:01	CANCELED TICKET	2/15/2018 14:53
X80460072	CHRISPCO	NEXGEN BUILDERS	VERTICAL BORING , TO INSTALL MONS	2/15/2018 11:14	2/20/2018 17:01	FACILITY MARKED	2/15/2018 11:50
X80460103	EBMUD	EB MUD	EXCAVATING W BACKHOE TO REMOVE WAT	2/15/2018 13:18	2/20/2018 17:01	NO CONFLICT	2/15/2018 17:39
W8046006	UNDERGROUND ELECTRIC CONST CO.	PG&E	HAND DIG/BACKHOE TO INSTALL #7 VAULT	2/15/2018 14:04	2/20/2018 17:01	FACILITY MARKED	2/15/2018 16:47
W8046007	UNDERGROUND ELECTRIC CONST CO.	PG&E	HAND DIG/BACKHOE TO INSTALL #7 VAULT	2/15/2018 14:09	2/20/2018 17:01	FACILITY MARKED	2/15/2018 18:30
W8025013	DURAN & VENABLES	VANDAELE HOMES	GRADING	2/15/2018 14:09	2/20/2018 17:01	NO REMARK REQUIRED	2/15/2018 15:30
X80460166	STAR ROOTER & PLUMBING INC.	P/O UNKNOWN	DIG TO REPLACE THE SEWER LATERAL USING	2/15/2018 16:31	2/20/2018 17:01	FACILITY MARKED	2/15/2018 17:11
X80460170	EBMUD	SAME	BACKHOE TO REPAIR WATER SERVICE	2/15/2018 16:53	2/20/2018 17:01	FACILITY MARKED	2/15/2018 17:30
X80460043	LANDPLAN LANDSCAPING INC	SAME	REMOVING CONCRETE DRIVE AND DIGGING	2/15/2018 9:56	2/20/2018 17:01	NO DELINEATION	2/15/2018 11:01
X80460077	AMERICAN BUILT POOLS	P/O LAM	EXCAVATE TO BUILD POOL	2/15/2018 11:32	2/20/2018 17:01	NO CONFLICT - CLEARED FROM OFFICE	2/15/2018 11:36
X80460088	AMERICAN BUILTPOOLS	SAME	SWIMMING POOL	2/15/2018 12:20	2/20/2018 17:01	NO CONFLICT - CLEARED FROM OFFICE	2/15/2018 14:10
W8040005	GOLDEN STATE UTILITY	ZAYO	DIRECTIONAL BORING TO INST CON	2/15/2018 13:58	2/20/2018 17:01	NO REMARK REQUIRED	2/15/2018 15:03
W8046002	ARS RESCUE ROOTER	P/O ROBERTS	HAND DIG TO REPLACE SEWER LINE	2/15/2018 9:40	2/20/2018 9:00	FACILITY MARKED	2/15/2018 16:50
W8045002	P/O CHAYATANAN	SAME	HAND DIG/COMPACTOR TO REMOVE & REP	2/14/2018 9:39	2/20/2018 9:00	NO CONFLICT	2/15/2018 10:57
X80430064	PLFENCECOMPANY	SAME	INSTALLING A FENCE	2/12/2018 10:26	2/20/2018 8:00	NO DELINEATION	2/15/2018 13:43
W8046000	AMM FENCING	P/O GLEAVE	HAND DIG TO INSTALL FENCE	2/15/2018 8:14	2/20/2018 8:00	NO CONFLICT - CLEARED FROM OFFICE	2/15/2018 10:00
W8045002	J.R. PIERCE PLUMBING	SUMMERHILL HOMES	TRENCH TO INSTALL SEWER & WATER	2/14/2018 9:12	2/20/2018 7:00	NO CONFLICT	2/15/2018 11:17
W8045002	JR PIERCE PLUMBING	SUMMER HILL HOMES	TRENCH TO INSTALL SEWER, WATER LINE'S	2/14/2018 9:49	2/20/2018 7:00	NO CONFLICT	2/15/2018 11:16
X80460096	GEORGE REED INC.	UNITED CONSTRUCTION	GRADING FOR PARKING LOT	2/15/2018 12:56	2/20/2018 7:00	BAD TIX INFO - RESUBMIT	2/15/2018 14:20
W80320069	EVERGREEN COMPANY INC	SIGNATURE HOMES	LANDSCAPING	2/15/2018 13:43	2/19/2018 13:43	NO DELINEATION	2/15/2018 14:14
W7332011	BARRY'S BACKHOE SERVICE	HAYWARD UNIFIED SCH DIST	BKHO/EXC TO INST UTILS	2/15/2018 12:43	2/19/2018 12:42	NO REMARK REQUIRED	2/15/2018 15:05
W8043006	ROOTER HERO	P/O SOUZA	HAND DIG TO REPLACE SEWER LINE	2/15/2018 9:52	2/19/2018 9:52	PG&E RESPONSE NOT REQUIRED	2/15/2018 12:33
X72830075	DPI, INC.	SAME	INSTALL UNDERGROUND UTILITIES	2/15/2018 8:18	2/19/2018 8:18	FACILITY MARKED	2/15/2018 15:42
X73330003	MOUNTAIN CASCADE	DGC	DIG TO INSTALL UTILITIES	2/15/2018 8:13	2/19/2018 8:13	NO REMARK REQUIRED	2/15/2018 10:52
X80440156	DELTA BAY CONCRETE CUTTING	KERN AMERICA	SAW CUTTING ASPHALT & CONCRETE	2/13/2018 15:42	2/19/2018 8:00	FACILITY MARKED	2/15/2018 16:27
X80440156	DELTA BAY CONCRETE CUTTING	KERN AMERICA	SAW CUTTING ASPHALT & CONCRETE	2/13/2018 15:45	2/19/2018 8:00	FACILITY MARKED	2/15/2018 16:31
W8045008	DAVEY TREE	P/O VALENTINE	STUMP GRINDING	2/14/2018 14:44	2/19/2018 8:00	NO CONFLICT	2/15/2018 15:23
W8045002	JB FENCE	P/O SANCHEZ	HAND DIG FOR FENCE POST HOLES	2/14/2018 9:13	2/19/2018 7:30	NO DELINEATION	2/15/2018 14:38
W8046004	JB FENCE COMPANY	P/O DONNA JAY	HAND DIG/JACKHAMMER TO INSTALL FENC	2/15/2018 10:55	2/19/2018 7:30	NO CONFLICT	2/15/2018 14:19
X80440173	SAME	SAME	INSTALLING FENCE. DIGGING WITH AN AUG	2/13/2018 16:59	2/17/2018 9:00	NO CONFLICT	2/15/2018 16:10
W8045006	SW BUILDER	P/O TSAING	BOBCAT/EXCAVATOR TO INSTALL FOUNDAT	2/14/2018 13:09	2/17/2018 8:00	NO CONFLICT	2/15/2018 11:40
X80450181	J D PARTNERS CONCRETE	SAME	REMOVE AND REPLACE SIDEWALK. BACKHO	2/14/2018 17:12	2/17/2018 8:00	FACILITY MARKED	2/15/2018 13:18

Covering Down

Every folder must be constantly monitored, and accounted for. If somebody is out that day, another locator or senior must be monitoring, and responsible, for that folder that day. It is up to the Supervisor/Senior to make the determination of what that looks like. Some examples are:

- Neighboring locator monitors folder
- Neighboring locators split a folder
- Floating Locator fills in on folder
- Senior/Supervisor monitors and moves tickets to others

Whomever is covering down on the folder, it is their responsibility to report out on the tickets for that folder, and cover down on emergencies





Daily Plan

Auditing has shown that each and every yard requires a Daily Work Plan.

What is required:

- **Lead** identifies the “Priority” work for that division on the morning call.
- **Locators** work Priority tickets only, unless situational items are understood by lead.
- **Locators** reach out to Lead when complete with Priority tickets for folder leveling.

I FOLDERS	RECEIVED YESTERDAY	CLOSED YESTERDAY			BACK LOG						DUE			TOTAL OPEN (A+B+C)
		OFFICE	FIELD	TOTAL	RENEGOTIATED	FIELD VISIT	PHASED	Inclement Weather	No Response from Excavator	TOTAL	TODAY (A)	TOMORROW (B)	BEYOND (C)	
Cinnebar 1	27	0	1	1	1	0	0	0	0	1	11	23	9	43
Cinnebar 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cinnebar 3	5	2	6	8	0	0	0	0	0	0	0	1	4	5
Cinnebar 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cinnebar 5	31	6	20	26	1	0	0	0	0	1	4	20	7	31
Cinnebar 6	11	0	15	15	2	0	0	0	0	2	4	9	6	19
Cinnebar 7	33	0	11	11	3	0	0	0	0	3	3	24	17	44
Cinnebar 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cinnebar 9	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Cinnebar B1 Folder	0	0	13	13	0	0	0	0	0	0	0	0	0	0
Cinnebar B2 Folder	0	0	12	12	0	0	0	0	0	0	0	0	0	0
Cinnebar Break-In Folder	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Edenvale 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Edenvale 2	21	0	13	13	0	0	0	0	0	0	14	21	4	39
Edenvale 3	16	0	16	16	0	0	0	0	0	0	2	16	10	28
Edenvale 4	22	0	21	21	2	0	0	0	0	2	8	19	12	39
Edenvale 5	21	2	22	24	0	0	0	0	0	0	5	16	3	24
Edenvale 6	9	0	0	0	3	0	0	0	0	3	0	7	8	15
Edenvale B1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Edenvale B2	5	0	1	1	0	0	0	0	0	0	3	4	2	9
San Jose Field Meet	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Jose Standby	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	201	10	151	161	12	0	0	0	0	12	54	160	83	297


Lead will learn to track the daily numbers, knowing the average closed per locator and yard. Using these numbers, and how many tickets are coming due in the next 12, 24, 36, 48, & Beyond; the Lead will determine the “Priority” Level.



Daily Plan - Lead

The Lead is the person in your yard that is responsible for monitoring the yards tickets, and folder leveling. This may be your Supervisor, Senior, locator, etc. Whoever it is, for the purpose of this lesson, we will call them the “Lead.” It is their responsibility to determine the Priority Level before the morning call.

F1 Huddle Board

Late Tickets YTD	Training Coming Due		Field Meet Tickets		Completed Yest	Locators Yest	Staffing Exceptions	11	
3			Total Open	29	113	11	Kevin, Luna, Bill, Zac, 5 Vacancies, Garrett, Richelle, Beto		
			Unassigned	0					
Data From	Tickets Due In:		Average Tickets Closed per Locator		13.2	Priority Tickets (<8 hours)			
Tier 1	Today	91	5.0	5.0		<div> > Tomorrow AM</div>			
Irth Filter	Tomorrow AM	12	0.7	5.7					
Auto	Tomorrow PM	64	3.5	9.2					
Tier 1	Beyond	125							
Tier 1	Total	292	6.9	16.1					

In the above example, setting a priority level of everything up to end of day tomorrow would require everybody to work 9.2 hours. So, to ensure that all priority tickets are completed a priority level of “everything up to noon tomorrow” is set. No matter how uneven the folders are, those tickets should be completed in approximately 5.7 hours, leaving 2.3 hours to work on other tickets, and ensuring that no ticket will go unmarked.



Creating a Daily Plan

Late tickets alone are not a bad thing, but what comes with it: dig-ins, lost time, risk to public safety, etc. is the danger that we need to mitigate. It's not a 1-to-1 ratio of late ticket to damage, but on a long enough timeline, and a number of tickets, a damage will happen.

As Locate and Mark we need to create a foundational plan for all work groups to work from to keep folders managed, late tickets from happening, and bring an apples-to-apples comparison for where and when additional recourses are needed.

This is where teamwork and planning really show its strength and weaknesses.

If the team has a handle on the original priority tickets, then adjust the priority as needed.

OVERVIEW

Time	Task
7:00	Senior/Supervisor create daily work plan from current work load. Call out "Priority." (36hour)
7:15	Huddle Call: Locate Crew receive work plan, and inform group of "priority" work.
A.M.	Locate Crew works priority tickets only. Individuals that free up, reach out for folder leveling. Assisting locators choose from priory tickets in the assigned folder. Senior/Supervisor holds crew to expectation.
Midday	Locators with tickets coming due that day, attempt to negotiate a new start time for all P.M. tickets. Re-prioritize all P.M. and create optimal route. Senior/Supervisor creates EOT work plan as needed.
P.M.	Locate Crew works priority tickets only. Individuals that free up, reach out for folder leveling. Assisting locators choose from priory tickets in the assigned folder. Senior/Supervisor holds crew to expectation.
EOD	Locators with tickets coming due up to noon the next work day, attempt to negotiate a new start time for all A.M. tickets. Identify first ticket location for Huddle Call.



Folder Manager - Midday

Lead: Gets an overview of the priority tickets, next day tickets, and gets a count of locators working EOT.

FOLDERS	RECEIVED YESTERDAY	CLOSED YESTERDAY			BACK LOG					TOTAL	DUE			TOTAL OPEN (A+B+C)
		OFFICE	FIELD	TOTAL	RENEGOTIATED	FIELD VISIT	PHASED	Incident Weather	No Response from Excavator		TODAY (A)	TOMORROW (B)	BEYOND (C)	
Cinnaber 1	9	2	16	18	0	0	0	0	0	0	0	2	5	7
Cinnaber 2	1	0	0	0	0	0	0	0	0	0	0	1	0	1
Cinnaber 3	10	0	5	5	0	0	0	0	1	1	3	7	7	17
Cinnaber 4	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Cinnaber 5	9	2	6	8	7	0	0	0	0	7	12	8	12	32
Cinnaber 6	19	4	15	19	1	0	0	0	0	1	8	14	4	26
Cinnaber 7	13	0	20	20	1	0	0	0	1	2	23	13	8	44
Cinnaber 8	1	0	0	0	0	0	0	0	0	0	0	1	0	1
Cinnaber 9	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Cinnaber B1 Folder	4	1	30	31	0	0	0	0	0	0	0	0	0	0
Cinnaber B2 Folder	0	0	0	0	9	0	0	0	0	9	9	0	0	9
Cinnaber Break-In Folder	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Edenvale 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Edenvale 2	26	0	14	14	0	0	0	0	0	0	8	38	4	50
Edenvale 3	18	0	17	17	0	0	0	0	0	0	0	6	11	17
Edenvale 4	20	4	16	20	1	0	0	0	0	1	2	13	12	27
Edenvale 5	11	0	23	23	0	0	0	0	0	0	2	14	3	19
Edenvale 6	9	0	0	0	4	0	0	0	0	4	0	5	11	16
Edenvale B1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Edenvale B2	4	0	3	3	0	0	0	0	1	1	5	3	1	9
San Jose Field Meet	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Jose Standby	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	154	13	165	178	23	0	0	0	3	26	72	125	80	277

Locator: After lunch is a good time to take a look at your folder to identify how many priority tickets you have left for the day. As a knowledgeable locator of the area, you should be able to determine the amount of work. If the work is too much, or might be cutting things close, it is a good time to call all of the ticket coming due that day. If you are able to renegotiate a new start time, then take that ticket off your priority list. Re-prioritize your list according to the excavators that you could not change the start time (No response from excavators, and unwilling to change start time.) You should have a much more manageable folder.

If the excavator does not answer, document the attempt to contact as No Response From Excavator, so that other Supervisor/Senior/Assisting Locators understand that you have reached out, and are aware of the ticket coming due. This ticket is still a priority ticket, unless a New Start Time is negotiated, per 4216.3a1A.



Folder Manager - End of Day (EOD)

Lead: Will re-prioritize the locators to the folders/tickets needing attention.

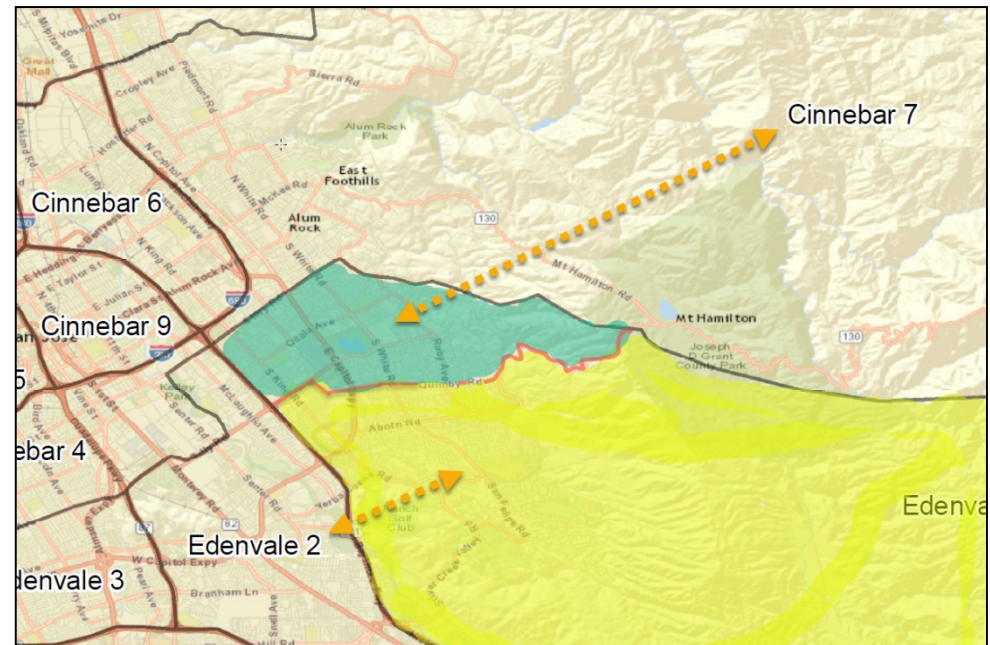


Locator: Needs to ensure to complete, negotiate a new start time, or document no response from excavator for all tickets due up to noon tomorrow.

If the excavator does not answer, document the attempt to contact as No Response From Excavator, so that other Supervisor/Senior/Assisting Locators understand that you have reached out, and are aware of the ticket coming due. This ticket is still a priority ticket, unless a New Start Time is negotiated, per 4216.3a1A.

The Cycle Continues

You come into work the next morning, and two locators called in sick. You're asked to cover down on one of the folders...



Good thing that all the AM tickets were taken care of. Now the Lead can maneuver locator(s) to your folder, and the locator has time to setup their day with their normal expected work load, and the new work load.

We hope & expect that other locators will assist with the folder, but somebody has to own that folder that day for : Emergencies, prioritizing work, calls to excavators, etc.

Locator Level (Heavy)

Likely to get Assistance

If your folder is the Heavy folder for the day, and you are expecting to get assistance from other locators. It is best practice to start working on your large/complicated priority tickets. This will allow you to put in the time and effort on the time consuming tickets, and the tickets that will probably require follow on activities like a field meet.

Assisting Locators will then be able to come in and take care of easier tickets, allowing them the ability to check their folder often for emergencies.

Handing off the difficult tickets to somebody trying to help you out, is the quickest way to never get assistance again.

Not going to get assistance

If everybody is swamped, and assistance isn't looking very likely, start your day with your easier tickets, and save your complicated tickets for the end of the day.

This could be a huge time saver near the end of the day because instead of needing to call 12 excavators for a new start time, you only need to call 1-2.

Situations will always be the call of the individuals folder. For instance in the summer I like to do my big jobs in the morning when it's colder, and my small job in the afternoon so I can get back to the AC. But always think bigger picture, and what needs to happen at the yard level today.

Locator Level (Light)

Likely to assist others

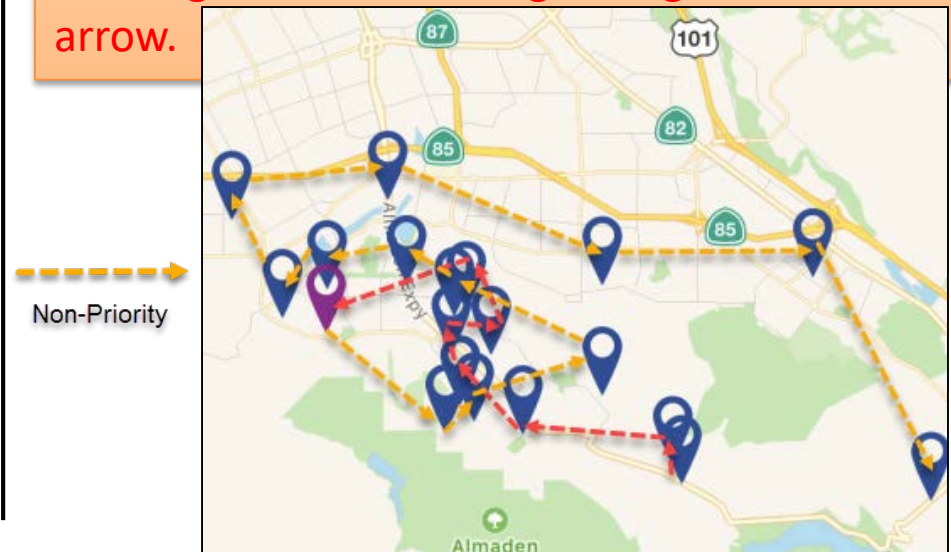
If after the huddle call, you look like you will be able to assist heavier folders, take the steps to prepare yourself to quickly jump over to help out others.



Others will not need assistance

If all folders are looking well managed, and the best thing for the team is for you to stay in your folder to get it further managed, Re-prioritize any upcoming work as needed, then work through the folder in the most effective routing as possible.

NOTE: Routing yourself in a clockwise manner will save you time at Stoplights. For you will be more likely to make right turns at a red light, versus waiting for a green left arrow.



Locator Level (Light)

NOTE: When assisting another folder (from the same division) it is best practice to move the tickets to your folder to work the ticket.

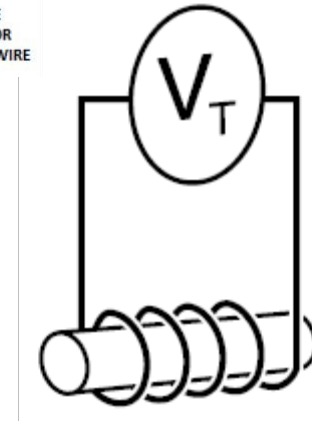
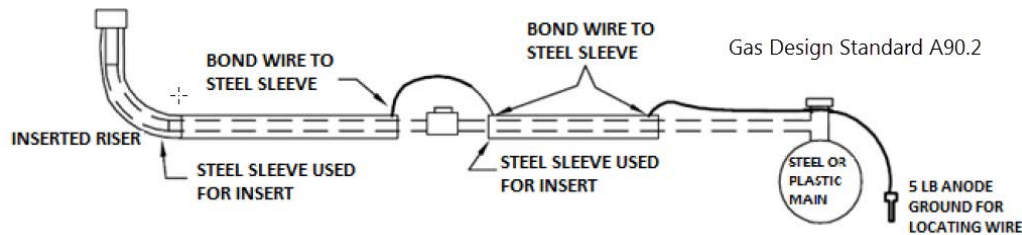
If your folder is an outlining area where you only have one or two neighbors, communicate with your neighbor early to let them know that you are light, and will be assisting their folder soon.

This enables you to not have to move to far from your folder (wasted time, or emergencies), and enables the other locator to move to a heavy folder not far from their folder.

Early communication builds the group dynamic, and allows a second locator to be familiar with a the folder. Ensure to communicate with the Lead and/or group message as well.

Locate Theory

As Locators there's all things that we know, see, or don't see. We know it happens but why. From here on out for the rest of the day, we are going to get into the nuts and bolts of locating.



Passive Locating

Up until now we have only been talking about 'active' locating, meaning that the locator is actively putting a known signal and frequency onto a facility. Locating without actively transmitting a signal onto a facility is known as 'passive.'

There are facilities underground that already have current moving at a set frequency. By knowing that frequency, it can aid in locating in troubleshooting situations.

Passive frequencies:

- Power60 – Electricity (US)
- 60Hz – Electricity (US)
- 50Hz – Electricity (Other Countries)*
- Radio – Grounded Facilities
- CP120 – Facilities with cathodic protection (gas, water, petroleum, etc.)

All Passive locates should be confirmed with preferred locating methods.

Power 60

60Hz – In the US electricity alternates through conductors in the grid at 60 times per second. Because we know this Power60 mode will find **some** conductors moving at 60Hz.

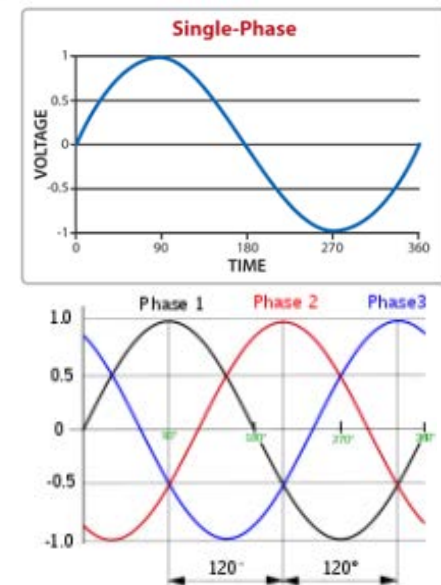
Your kitchen faucet is fed by a water pipe. That pipe has water in it right now, even though you are not using faucet. The pipe is charged with water, ready to use, but there is no flow.

The same can be said about electrical lines, the line has voltage ready to go, but until something needs it, it is sitting stagnant without any flow, or current. If there is no current, Power60 and/or 60Hz will not locate the line.

Experiment: Try to locate a street light in the day time on Power 60, nothing. If you take your non-contact voltage tester to the wire it will read that voltage is present, but you will have to wait until the night when the light turns on to get any signal on Power60.

Pitfalls of Power60 or 60Hz:

- Many other utilities (phone, cable, stop lights, etc.) operate off electricity, therefore, any signal that you get can be a different utility.
- If the electric facility is 3-phase, Power60/60Hz will have a difficult time .



Radio(RF)

Radio is a great Passive tool at finding deactivated metallic facilities and/or well balanced 3-phase primary lines not found by Power60/60Hz.

Radio waves are long waves that live in the atmosphere for a long time and at great distances, which eventually hit the earth to dissipate. These low frequencies are attracted and collect to long, well-grounded facilities in the earth which can then be Passively located on "Radio."

Pitfalls of Radio: many other facilities use low frequency radio signals



CP120 – Refers to the flow of current put out by a rectifier in cathodic protection situations.

PG&E Locators can use this passive mode to assist in locating steel lines. Larger lines usually need more cathodic protection, and therefore, create a stronger signal.

To the gas corrosion protection, rectifiers are the other half of anodes to the system. Just like our locating signal wants to do a loop back to the transmitter, the rectifier places an electrical current to the steel gas main. Where there is weaknesses in the protection, the electrical current passes through the weakness drawing the current back through the soil back to the sacrificial anode field. It attracts the corrosion to the anode.

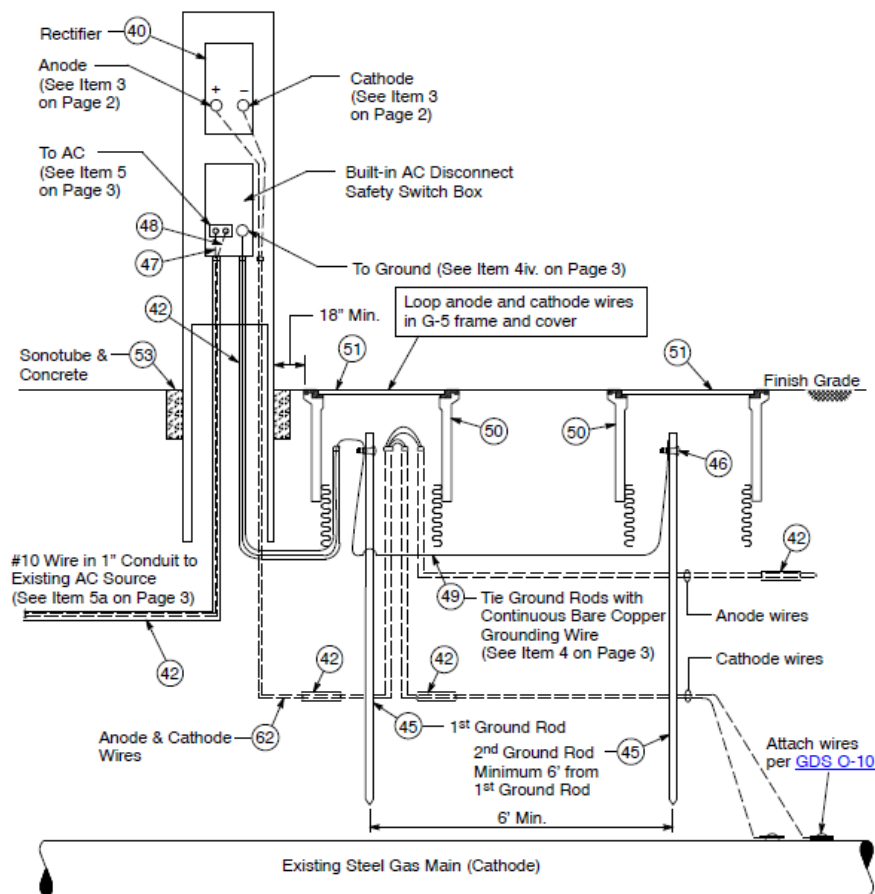
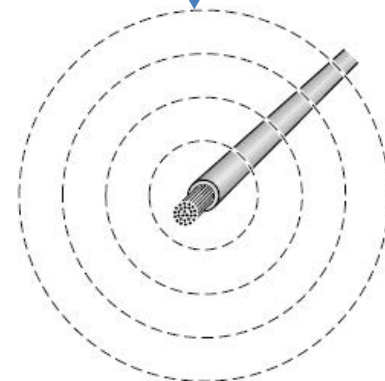
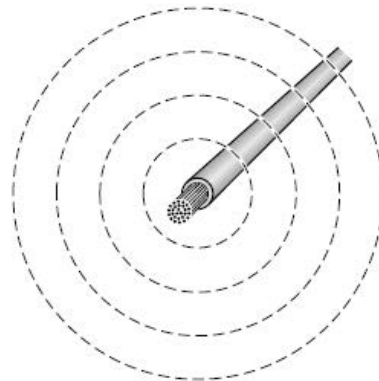
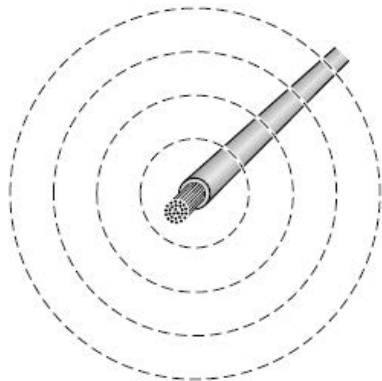
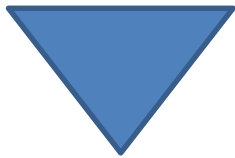
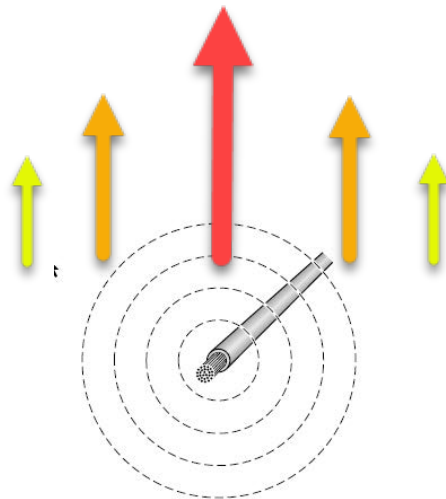
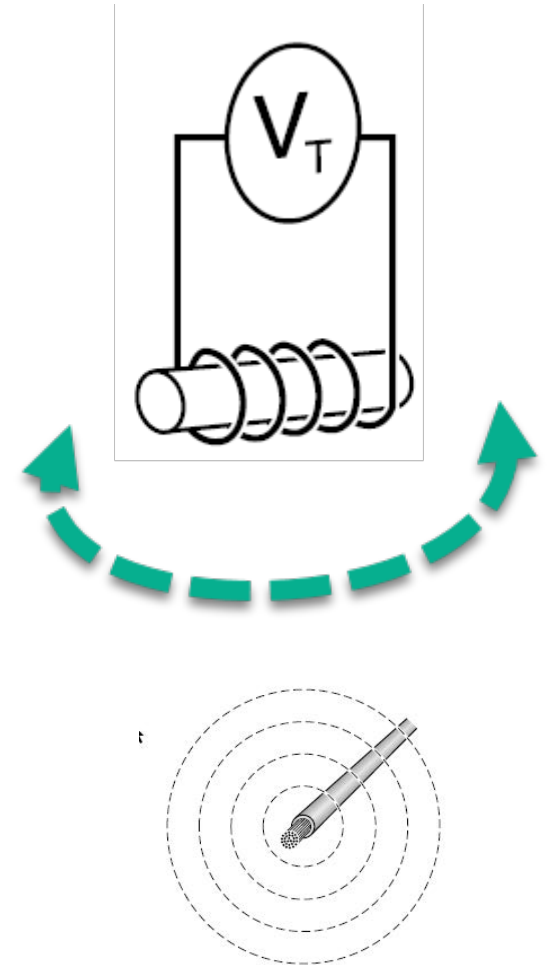
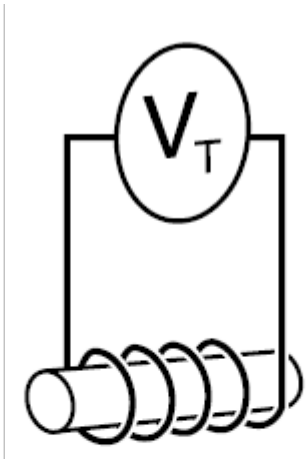


Figure 1
Pedestal-Mount Rectifier Installation

Receiver Anatomy Anatomy



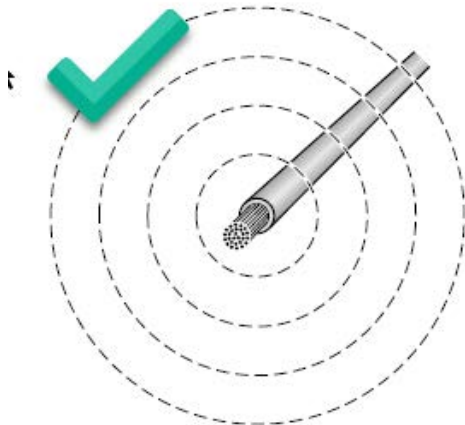
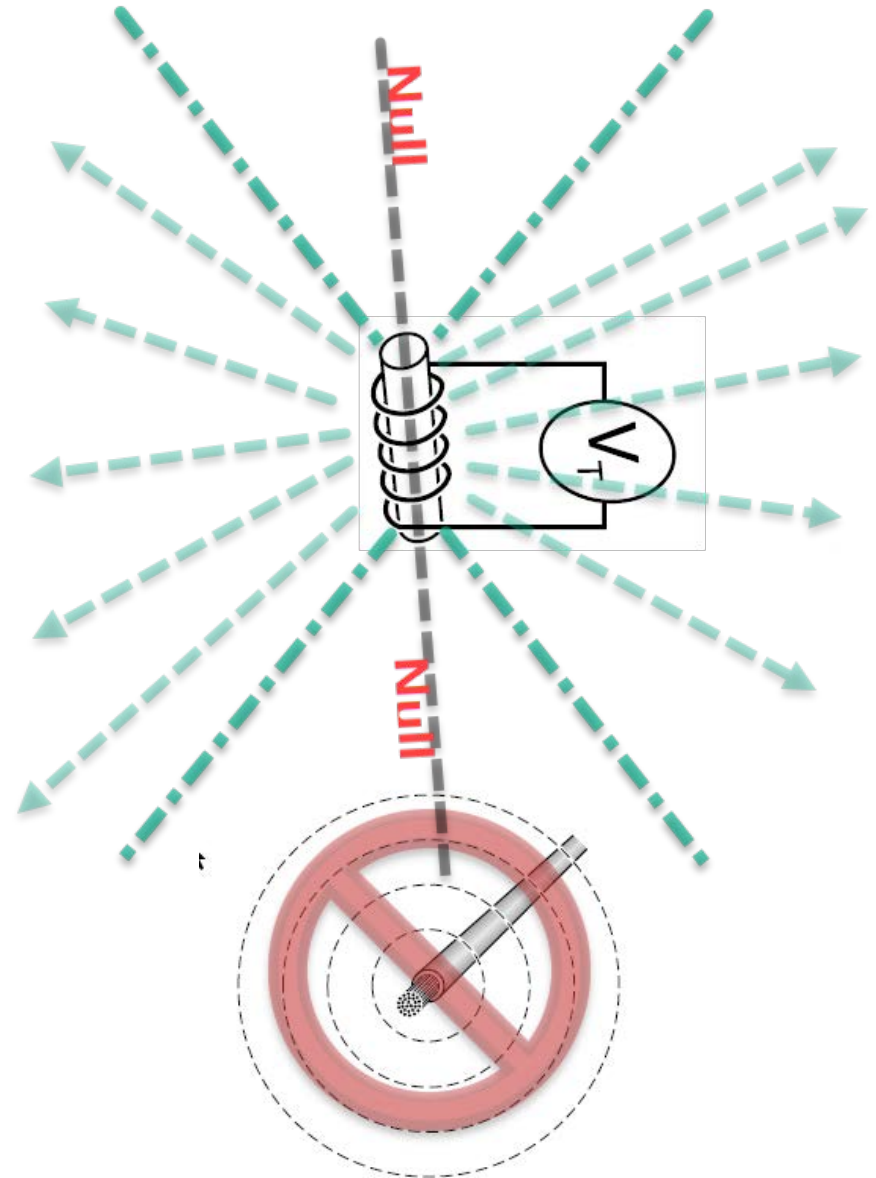
Peak Antennae



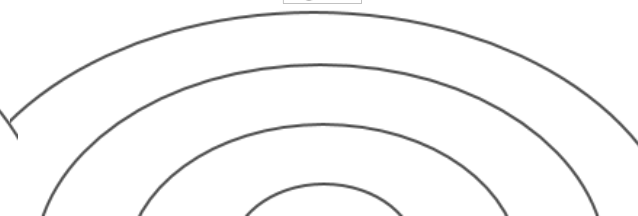
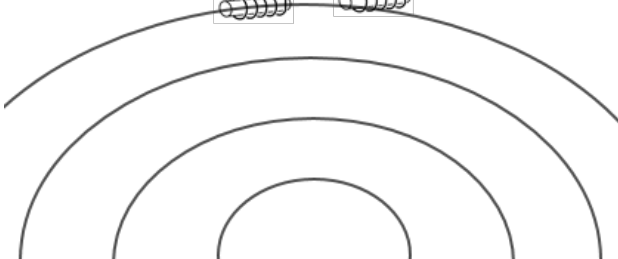
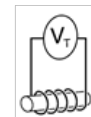
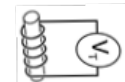
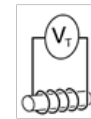
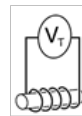
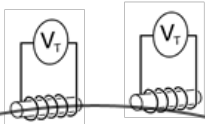
This coil is referred to as an antenna. A horizontal antenna is known as a “Peak” antenna. Peak refers to the signal strength of the EM **current** when it is center of the antenna.

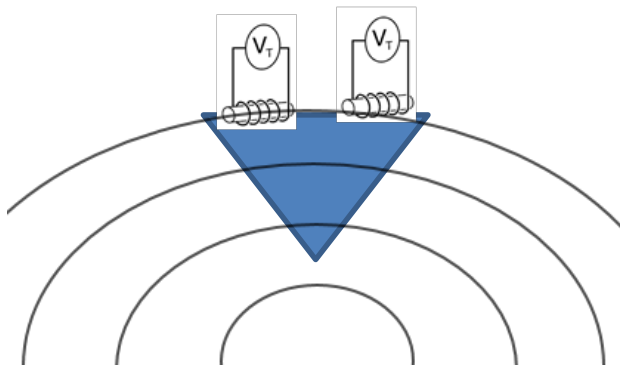
Peak signal also happens with the antenna is rotated perpendicular to the EM **current**.

Null Antennas

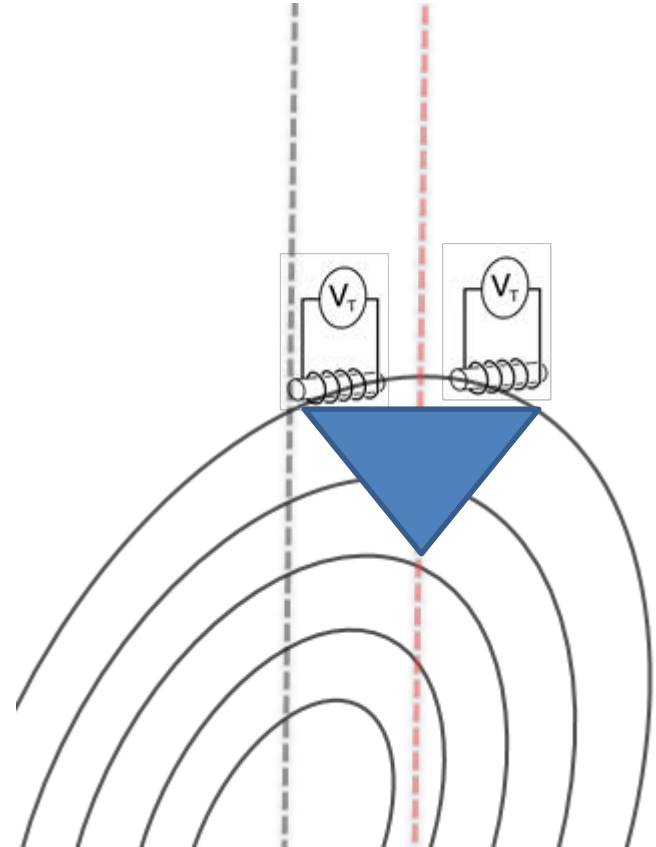


Receiver Anatomy Anatomy



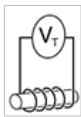


No distortion

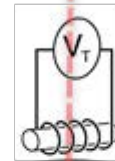


Distortion

Pipehorn Anatomy Anatomy

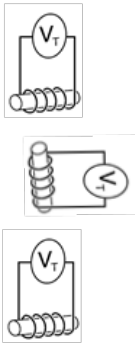


No distortion

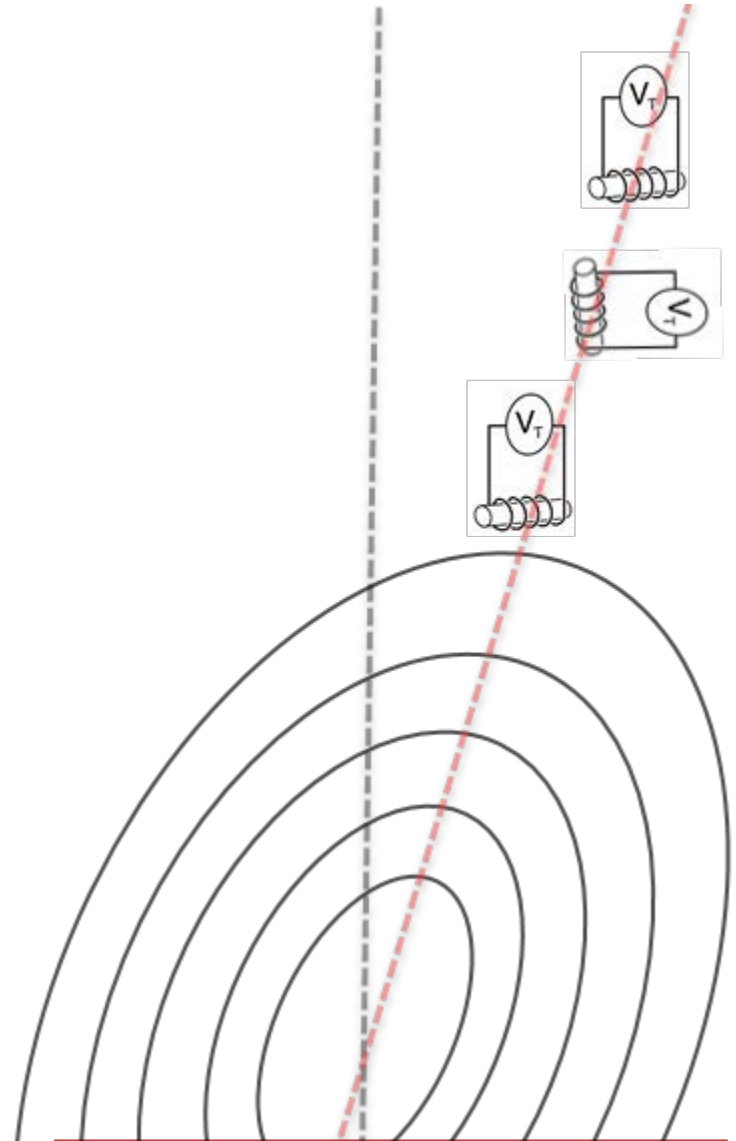


Distortion

ML2/RD/Utiligaurd Anatomy



No distortion



Distortion

Great Locator

What single factor about locating, makes a Locator:

- More Efficient
- More Accurate
- Confident

So, what is the single factor that separates the GREAT locators from the normal locators?

Knowing the best place to transmit a signal from

Current



This river has current. It can be measured.

- The river can fork, splitting the current in half.
- The water penetrates the river bed where the current is lost as the water now saturates the surrounding earth.
- Water can also sit stagnant, without current, in a lake or pool.



Ohms Law ($I = V/R$)

I = is current measured in **Amperage**

V= voltage measured in **Volts**

R= resistance measured in **Ohms**

In locating we often refer to our “signal.” What we are actually referring to is our current. If there is no current on a line, there will be no signal to locate.

So, if we have a trouble locate: a gas stub, an electric dead leg, long distance locate, the question that you have to answer is, “**How do I get current to that location to get a signal?**”



Ohms Law ($I = V/R$)

So if current (I) is what we want on a line, that can be answered by a simple math problem.

Current = Voltage(V) / Resistance(R)

So to get more current, we need to:

- Add more Voltage
- Decrease Resistance

Add More Voltage

Adding more Voltage(V) is pretty cut and dry,

- hit the “+” symbol on transmitter to add more power to the line
- Transmitting at a closer location

Note: changing your Gain does not add any more or less current to the facility. Gain is used to determine the sensitivity that the receiver views the current.

Therefore; your money is made at the transmitter, not the receiver!

Decreasing Resistance

Decreasing Resistance(R) has a lot more options to the locator:

- Using a higher frequency (yes, *raising* the frequency to *lower* resistance.)
- Creating a better ground
 - Placing in a better location
 - Placing in a moister location
 - Placing deeper
 - Placing multiple grounds
 - Bypassing the earth*
- Transmitting at a different location

AC Loop

Our locating transmitter puts out an Electro Magnetic Frequency (EMF) that works in a Alternating Current. So, current doesn't actually travel down a facility. It travels back and forth, but gets weaker as it gets further from the transmitter.

Understanding the AC Loop is extremely important when working through trouble shooting situations.

Knowing the anatomy of the facility, and how the current is trying to leave and return to the receiver will allow a locator to not only work through troubled locates, but will assist in knowing the best and fewest connections needed to locate all the facilities for each USA ticket.



EXHIBIT 58

CATSWebNET
by AssurX, Inc

Production

Date/Time Printed: Thursday, September 14, 2017 1:11:53 PM
Printed By: MCGOVERN K(KLM0)

QA Audit Corrective Action #428165

[Normal View](#)
[Highlight Changes](#)

Related Record Details

Audit Number	IA-5-2016-2241	Related Audit ID	428098
Audit Name	Damage Prevention – Locate and Mark Program (Part 1)	Audit Report Number	16-042
Confidential	No	Report Date	4/22/2016
Related Issue ID	428108	Report Number	
Issue#	2		
Issue LOB	Gas Operations	Risk Level	Medium
Issue Classification	Data Management, Monitoring and Management of Risk and Controls,		
Issue Title	2. Quality Management (Medium Risk)		
Action Plan	Management Action Plan: Gas Operations will develop an action plan to address this issue by June 17, 2016.		
Issue Description	2. <u>Quality Management</u> (Medium Risk)		

Background: The Gas Quality Management program provides a mature quality review process for the L&M work stream. The L&M quality checklist covers the major process control points for location work, and the quality staff is sufficiently independent and experienced. The current quality process includes a mixture of scheduled (once yearly) quality reviews for each individual locator along with randomly selected assessments of locator work (normalized to the number of tickets worked within individual Utility divisions). The current Gas Quality work plan includes a total of 350 locator quality assessments in 2016.

Issue: We noted that the current process for determining the number of annual quality assessments has resulted in a relatively low number of evaluations. The projected rate of 350 locator quality assessments in 2016 translates to approximately 1,750 work tickets for review. This represents oversight of slightly less than one percent of all the expected 191,000 locations to be marked in 2016. [1] We also noted that the number of assessments performed is not modified during the year in response to the nature and volume of errors detected in the L&M process.

[1] In comparison, the Utility uses quality assessment rates of 100 percent and 10 percent for its pipeline patrol and legacy cross bore programs, respectively.

Corrective Action Details

Status Closed
Audit Discipline
Assigned Auditor IA-Operations Audit 1
Action Name Quality Management
Corrective Action Plan Description Management Action Plan: Gas Operations will develop an action plan to address this issue by June 17, 2016.
Audit Report Date 4/22/2016
Action Closure Notes
Client Officer SOTO J(J81K)
Client Officer's Direct Report CHRISTOPHER M(M6CE)
Client Manager CARROLL J(JLC5), DICKSON J(JXDQ)
Audit Manager MCGOVERN K(KLM0)
IT Manager
IA Director PEZZOLA C(CAPE)
Data Quality Control
Number of Commitment Date Changes 2
Original Commitment Date 2/28/2017
Previous Milestone Date 2/28/2017

Other Client Personnel
Line of Business Gas Operations
Audit Supervisor
Auditor in Charge (AIC)
IA VP CAIRNS S(SJCO)
Follow-Up Coordinator
Commitment Date 8/1/2017
Milestone Date 8/1/2017

Contacts & Approvers

Related Items Contacts Spacer Approvers	No folder is open.
---	--------------------

Auditor Notes

Auditor Notes on this Corrective Action

Comment Action	Auditor Comments	Date Added	Last Edited On / By
	Jeff - Sure, let's set the new date for Sept 30 to be sure.		
	I agree with you that the [REDACTED] and the quality team seem receptive to the changes we've discussed, and I don't anticipate that they will give you any trouble in coming up with the plan outlines. As you and Joel continue you discussions with IT, please help them understand that IA is looking for (only) four discreet upgrades to the existing software controls:		
	1) Software controls that ensure no operator may work in the system without holding the necessary OQs. 2) Software controls that ensure that the L&M instruments being used are currently calibrated. 3) Software controls to ensure you can track and record the current and past locations of L&M employees (e.g., "breadcrumbs") performing their duties. 4) Software controls to ensure that all necessary supporting documents (e.g., site photos) and notes are uploaded to the system before a L&M ticket can be closed out.	8/30/2016 3:58:07 PM	Aug 30 2016 3:58PM / MGW3
	Please let us know if you encounter any problems in this regard.		
	Enjoy your vacation time, and stay in touch.		
	[REDACTED]		
	Can you please put the attached action plans in ECTS?	12/6/2016 11:00:31 AM	

Officer: Jesus Soto

Officer direct report: John Higgins

Client Manager: Joel Dickson, Jeff Carroll

Dec 6 2016

11:00AM /

MGW3

Issue 1 (Irthnet Software): Target completion date: 12/31/2018

Issue 2 (Quality Management): Target completion date: 2/28/2017

Thanks,
Karen

From: McGovern, Karen

Sent: Wednesday, March 29, 2017 2:23 PM

To: [REDACTED]

Cc: [REDACTED]

Subject: Change target date in ECTS - L&M Part 1 - Issue 2 - Quality Management (ECTS 428165)

Hi [REDACTED]

Can you please revise the target date for this item (ECTS 428165) to 8/1/2017.

Thanks,
Karen

From: Carroll, Jeff

Sent: Wednesday, March 29, 2017 2:19 PM

To: [REDACTED]

Cc: Jue, Donnie; [REDACTED]; McGovern, Karen

Subject: RE: L&M - Part 1 - follow on Issue with target date of 2/28

[REDACTED]

August 1, 2017.

Thanks,

Jeff

4/25/2017
3:22:39 PMApr 25 2017
3:22PM /
MGW3

Public Comments

Reminder

Email
Notification

Standard Notification

Bundle Initial Notification

No

Record Details

Audit TT ID

0

Issue TT ID

0

[REDACTED]
SOTO J(J81K)
CHRISTOPHER M(M6CE)CARROLL J(JLC5), DICKSON J(JXDQ)
MCGOVERN K(KLM0)

Audit Users

[REDACTED]
PEZZOLA C(CAPE)
CAIRNS S(SJCO)Actual
Completion
Date

9/12/2017

Action Approval/Close Date

9/12/2017 9:11:29
AM

Reason For Edit

update status to closed

Task Created
on

5/19/2016 4:40:43 PM

Last Edit Date

9/12/2017 9:11:29 AM

Last Edit User

MGW3

Group

Form Type

Action

Form Name

QA Audit Corrective Action

File Attachments

File Name	2016-11-15 Agenda 5 - Locate and Mark IA Action Plan.pdf	File Length	108847
Description	corrected action plan document		
Notes			
Reason For Edit	New record		
Creation Date	3/31/2017 11:34:25 AM	Creation User	MGW3
Last Edit Date	3/31/2017 11:34:25 AM	Last Edit User	MGW3
File Name	Close Issue in ECTS (428165) - Locate and Mark - Quality Management Issue .msg	File Length	116224
Description	Closure Support		
Notes	file contains email and an embedded file to support closure		
Reason For Edit	New record		
Creation Date	9/1/2017 3:19:14 PM	Creation User	MGW3
Last Edit Date	9/1/2017 3:19:14 PM	Last Edit User	MGW3

McGovern, Karen

From: McGovern, Karen
Sent: Friday, September 01, 2017 6:35 AM
To: [REDACTED]
Subject: Close Issue in ECTS (428165) - Locate and Mark - Quality Management Issue
Attachments: IA Audit #16-042 Damage Prevention Locate & Mark Program.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Hi [REDACTED],

Can you please close this issue (428165) in ECTS?

Please include this e-mail and attachment.

Thanks,
Karen

From: Pezzola, Christopher
Sent: Thursday, August 31, 2017 3:13 PM
To: McGovern, Karen
Subject: RE: Internal Auditing - Locate and Mark - Quality Management Issue - Status

Yes I am in agreement with this and I was part of that discussion.

C

Christopher A. Pezzola

Director – Internal Auditing
Risk and Audit
Pacific Gas and Electric Company
415-973-6821 415-264-3258

From: McGovern, Karen
Sent: Thursday, August 31, 2017 2:13 PM
To: Pezzola, Christopher
Subject: FW: Internal Auditing - Locate and Mark - Quality Management Issue - Status

Hi,
Donnie is indicating that our issue around quality management reviews for L&M was approved at SAR today and he is thinking this can be closed?

From: Jue, Donnie
Sent: Thursday, August 31, 2017 2:02 PM
To: McGovern, Karen
Cc: [REDACTED] Wells, Andy; Carroll, Jeff
Subject: RE: Internal Auditing - Locate and Mark - Quality Management Issue - Status

Karen,

Please see the attached actions taken to address "Item 2: Quality Management". Corrective actions were reviewed today at the L&M SAR and approved. I believe Item 2 can be closed however, if more information or action is required please let me know.

As for Item 1, I see it's assigned to [REDACTED] however, I am working with IrthNet on a number of enhancements to address the issues identified in item 1. Let me know if you want information around the enhancements.

Thanks

Donnie Jue

Gas Program Manager, Principal
1850 Gateway Blvd., Concord
Office: 8-459-8020 (internal)
925-459-8020 (external)
Cell: 510-760-4225



From: McGovern, Karen
Sent: Thursday, August 31, 2017 10:03 AM
To: Jue, Donnie
Cc: [REDACTED] Wells, Andy; Carroll, Jeff
Subject: FW: Internal Auditing - Locate and Mark - Quality Management Issue - Status

Hi Donnie,

Can you please let me know the status or if a revised target date is needed?

Thanks,
Karen

From: Carroll, Jeff
Sent: Thursday, August 31, 2017 6:58 AM
To: McGovern, Karen
Cc: [REDACTED] Jue, Donnie; Wells, Andy
Subject: FW: Internal Auditing - Locate and Mark - Quality Management Issue - Status

Karen:

Joel & I are no longer in this department. I have forwarded this to Donnie Jue, [REDACTED], and Andy Wells. One of them will need to provide current status.

Thanks,

Jeff

From: McGovern, Karen
Sent: Thursday, August 31, 2017 6:27 AM
To: Carroll, Jeff
Subject: Internal Auditing - Locate and Mark - Quality Management Issue - Status

Hi Jeff-- This audit issue related to Quality Management for L&M had a revised target due date of 8/5/17. Can you please let me know what the status is? Do you need to revise the target date? I'm attaching the audit report and your original action plan for reference (issue #2 on both).

I'm preparing the monthly report of open audit issues for Jesus Soto that I'm sending tomorrow and this one now shows as past due date.

Thanks,
Karen

Karen McGovern

Sr. Manager | Internal Auditing | Risk and Audit
Pacific Gas and Electric Company
245 Market Street, Room 474, San Francisco, CA 94105
Int: 8.223.6836 | Ext: 415.973.6836

From: ECTSAApplication
Sent: Thursday, August 31, 2017 12:05 AM
To: Carroll, Jeff; Dickson, Joel; [REDACTED] McGovern, Karen
Cc: [REDACTED]
Subject: Corrective Action Plan Commitment Date - 30 Days Past

Just a reminder that 30 days have passed since the Commitment Date. If you have any questions or concerns please contact [REDACTED]

----- **RELATED AUDIT RECORD DETAILS** -----

Audit ID: 428098
Audit Number: IA-5-2016-2241
Audit Name: Damage Prevention – Locate and Mark Program (Part 1)

----- **RELATED ISSUE RECORD DETAILS** -----

Issue Title: 2. Quality Management (Medium Risk)
Report Date: 4/22/2016 12:00:00 AM
Action Plan Details:

Management Action Plan: Gas Operations will develop an action plan to address this issue by June 17, 2016.

Issue Description:

2. Quality Management (Medium Risk)

Background: The Gas Quality Management program provides a mature quality review process for the L&M work stream. The L&M quality checklist covers the major process control points for location work, and the quality staff is sufficiently independent and experienced. The current quality process includes a mixture of scheduled (once yearly) quality reviews for each individual locator along with randomly selected assessments of locator work (normalized to the number of tickets worked within individual Utility divisions). The current Gas Quality work plan includes a total of 350 locator quality assessments in 2016.

Issue: We noted that the current process for determining the number of annual quality assessments has resulted in a relatively low number of evaluations. The projected rate of 350 locator quality assessments in 2016 translates to approximately 1,750 work tickets for review. This represents oversight of slightly less than one percent of all the expected 191,000 locations to be marked in 2016.[1] We also noted that the number of assessments performed is not modified during the year in response to the nature and volume of errors detected in the L&M process.

[1] In comparison, the Utility uses quality assessment rates of 100 percent and 10 percent for its pipeline patrol and legacy cross bore programs, respectively.

----- **CORRECTIVE ACTION RECORD DETAILS** -----

Action Name: Quality Management

Original Commitment Date: 2/28/2017 12:00:00 AM

Current Commitment Date: 8/1/2017 12:00:00 AM

Risk Level: Medium

Assigned Auditor: [REDACTED]

Auditor in Charge (AIC): [REDACTED]

Client Manager: CARROLL J(JLC5),DICKSON J(JXDQ) JLC5@pge.com;JXDQ@pge.com

IA Manager: MCGOVERN K(KLM0) KLM0@pge.com

Follow-up Coordinator: [REDACTED]

Link to Corrective Action Plan Record:

<https://catsweb.utility.pge.com/CatsWeb/main.ASP?WCI=Main&WCE=ViewCA&WCU=r%3d428165>

Automated Message - [IA CA Plan - Notif Commit Date Past 30 days

Findings	Corrective Action Description	Current Status Complete In Progress Not Started	Action Owner	Target Due Date	Actual Completion Date
<p>Item 2: Quality Management Open Action Item from 11/2016 IA Findings The Gas Quality Management program provides a quality review process for the L&M work stream. The current process for determining the number of annual quality assessments has resulted in a relatively low number of evaluations. The projected locator quality assessments in 2016 are slightly less than one percent of the projected work in 2016. Also, the number of assessments performed is not modified during the year in response to the nature and volume of errors detected in the L&M process.</p>	<p>Increasing the number of Quality Management field assessments will not necessarily strengthen the L&M program controls and reduce program risk. However, the Quality of the process and product of Locate & Mark will be addressed jointly by the Gas Quality Management Program and the Locate & Mark team:</p> <ol style="list-style-type: none"> 1. Standardize and document the Quality Control activities within the Locate & Mark team – which will dovetail & complement the Quality Management Program's assessments. 2. Staff a Quality Control position within Compliance Programs to develop metrics and drive, measure, monitor & report progress. 3. Provide a modification process that will allow the flexibility to redirect focus during the year dependent on the nature & volume of errors detected in the L&M process. 	<ol style="list-style-type: none"> 1. L&M QC Compliance Desk review protocol is developed and in sync with Quality Management. Can start reviews when resources are assigned. 2. Compliance Desk resources will start reviewing 2017 tickets as soon as the QA/QC review of 2016 tickets is completed. 8/7/17 – Compliance Desk will begin training the week of 8/21 and begin reviews starting 8/28/17. 8/28/17 - Reviews will consist of a sample size of 200 Facility Marked tickets per week. The 200 tickets will be randomized by division (~10 per division per week) and excavator. Tickets to review will be from 1-2 weeks prior. As QC gains experience and efficiencies will work towards reviewing 400 tickets a week, 20 per Division. 3. Compliance Desk QC will adjust their reviews based on the nature & volume of errors detected by QM. 	<p>Donnie Jue</p> <p>Donnie Jue</p> <p>Jeff Carroll Frances Yee</p>	<ol style="list-style-type: none"> 1. Complete 2. Complete 3. Complete 	<ol style="list-style-type: none"> 1. 12/2016 2. 8/28/17 3. 6/28/17

EXHIBIT 59

Last Week

Last week Late ticket Confirmed count

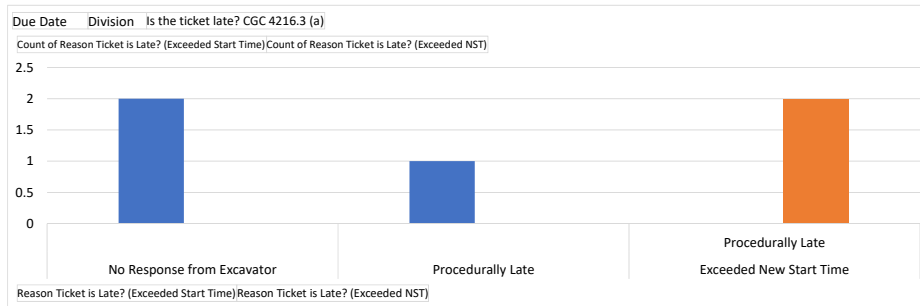
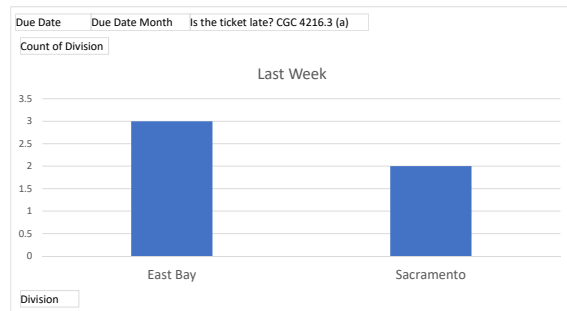
Due Date	(Multiple Items)
Due Date Month	(All)
Is the ticket late? CGC 4216.3 (a)	Yes

Divisions	Count of Division
East Bay	3
Sacramento	2
Grand Total	5

Late ticket reason

Due Date	(Multiple Items)
Division	(All)
Is the ticket late? CGC 4216.3 (a)	Yes

Reason Ticket is Late	Count of Reason Ticket is Late? (Exceeded Start Time)	Count of Reason Ticket is Late? (Exceeded NST)
No Response from Excavator	2	
Procedurally Late	1	
Exceeded New Start Time		
Procedurally Late		2
Grand Total	3	2



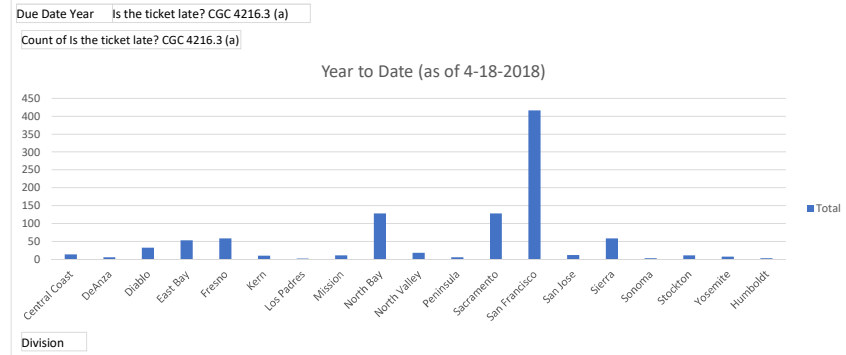
Reason	Notes
Locator Doc Error (Late)	Locator did not properly document the agreed upon new start time. Partial information for new start time is their
No Response from Excavator	Documented attempt to contact the excavator prior to due time.
Field Meet	Locator documented a field meet, but not a new start time of phasing plan
Procedurally Late	The ticket exceeded the time documented on the USA ticket
Other	Other: see comments

As of 4/18/2018 to Date

Late Ticket Confirmed Count

Due Date Year	(All)
Is the ticket late? CGC 4216.3 (a)	Yes

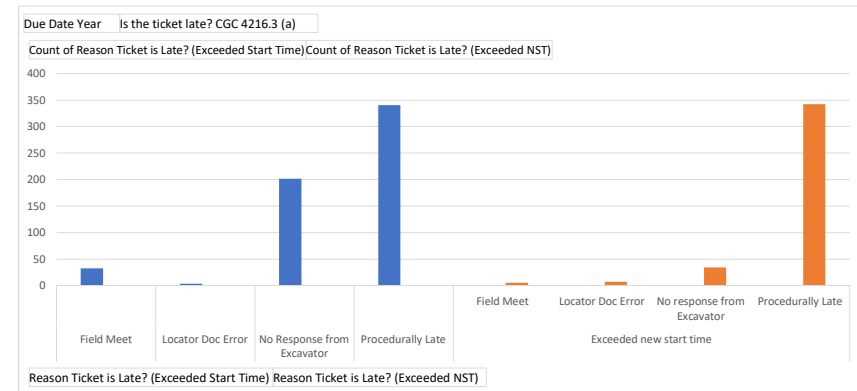
Row Labels	Count of Is the ticket late? CGC 4216.3 (a)
Central Coast	13
DeAnza	5
Diablo	32
East Bay	52
Fresno	58
Kern	9
Los Padres	1
Mission	10
North Bay	128
North Valley	17
Peninsula	5
Sacramento	128
San Francisco	416
San Jose	11
Sierra	58
Sonoma	2
Stockton	10
Yosemite	7
Humboldt	2
Grand Total	964



Late Ticket Confirmed count

Due Date Year	(All)
Is the ticket late? CGC 4216.3 (a)	Yes

Row Labels	Count of Reason Ticket is Late? (Exceeded Start Time)	Count of Reason Ticket is Late? (Exceeded NST)
Field Meet		32
Locator Doc Error		3
No Response from Excavator		201
Procedurally Late		340
Exceeded new start time		
Field Meet		5
Locator Doc Error		7
No response from Excavator		34
Procedurally Late		342
Grand Total	576	388



Confirmed late monthly ticket count (month to date)													
Late?	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Yes	617	240	287	207	153	231	196	74	41	84	74	13	2217
NO	242	163	212	227	312	273	236	115	76	86	69	29	2040
Total	859	403	499	434	465	504	432	189	117	170	143	42	4257

Confirmed Late Tickets <1; ≤5; >5				
Div	3 Wks ago	2 Wks ago	Last Week	YTD
SA	0	2	0	431
EB	0	3	0	194
SF	0	0	0	809
DI	0	0	0	61
NB	1	0	0	206
SO	0	0	0	4
HB	0	0	0	2
SI	0	0	0	160
NV	0	0	0	22
North	1	5	0	1889
SJ	0	0	0	19
PN	0	0	0	9
MI	0	0	0	24
YO	1	0	0	20
DA	0	0	0	15
FR	0	0	0	85
CC	0	0	0	20
ST	0	0	0	116
KE	0	0	0	15
South	1	0	0	323
All	2	5	0	2212

Last Week + Month To Date		
Late?	Last W.	MTD
YES	0	8
NO	0	24
Total	0	148

Last Week %		
Late?	Last W.	%
YES	0	#DIV/0!
NO	0	#DIV/0!
Total	0	

MTD %		
Late?	MTD	%
YES	13	31%
NO	29	69%
Total	42	

YTD %		
Late?	YTD	%
YES	2217	52%
NO	2040	48%
Total	4257	

From 1/1/2018 to 4/17/2018

Late Ticket Confirmed Count

Is the ticket late? CGC 4216.3 (a)	Yes
Due Date Year	(All)
Due Date Month	(All)

Row Labels	Count of Is the ticket late? CGC 4216.3 (a)
Central Coast	6
DeAnza	10
Diablo	29
East Bay	145
Fresno	27
Kern	6
Mission	14
North Bay	79
North Valley	5
Peninsula	4
Sacramento	307
San Francisco	393
San Jose	8
Sierra	102
Sonoma	2
Stockton	106
Yosemite	13
Grand Total	1256

EXHIBIT 60

Quality Assurance Results - FIELD

Locate and Mark

December 2018 Reporting Period





QA Field Executive Summary

Process	BPR RAG Status (Current)	High Findings (Current)	BPR RAG Status (YTD)	High Findings (YTD)	Notes
Locate and Mark	Green	1	Red	40 (33 PG&E Employee, 7 Contractor)	<ul style="list-style-type: none">Completed 89 assessments in the December reporting period. YTD completed 1547.1 High finding<ul style="list-style-type: none">Locator did not mark 1/2 " long side service within delineation in North Valley

	Monthly BPR RAG Scale		
	Green	Amber	Red
Dec	≤4		>5

YTD BPR RAG Scale		
Green	Amber	Red
≤34		>44



QA Field Division Summary

Division	Locate and Mark			
	Current		YTD	
	High	All	High	All
SA	-	-	5	63
EB	-	1	-	21
SF	-	-	5	18
DI	-	-	-	26
NB	-	-	-	24
SO	-	1	1	8
HB	-	-	-	-
SI	-	9	1	67
NV	1	5	1	13
North	1	16	13	240
SJ	-	-	4	27
ST	-	-	5	23
PN	-	2	3	28
MI	-	-	2	25
YO	-	-	3	18
DA	-	-	4	24
CC	-	-	-	6
LP	-	-	2	12
FR	-	-	3	21
KE	-	-	1	12
South	-	2	27	196
ALL	1	18	40	436



Locate and Mark Summary

December 2018

Locate and Mark – Quality Assurance Summary – December 2018																				
Locate and Mark – Quality Assurance Summary – December 2018											Data Period: 11/24/2018 – 12/31/2017									
Assessment Level Summary	CC	DA	DI	EB	FR	HB	KE	LP	MI	NB	NV	PN	SA	SF	SI	SJ	SO	ST	YO	Grand Total
Assessments w/ Findings		0		1				0			5	2	0	0	8		1			17
Assessments Completed		7		2				5			16	8	4	3	29		15			89
Error Rate (Assessment Level)		0.00		50.00				0.00			31.25	25.00	0.00	0.00	27.59		6.67			19.10

Findings Summary	CC	DA	DI	EB	FR	HB	KE	LP	MI	NB	NV	PN	SA	SF	SI	SJ	SO	ST	YO	Grand Total
High											1									1
Were all facilities with-in the delineated area marked? (High)											1									1
Medium											1	2			3					6
Were ticket times entered appropriately into IrthNet? (Medium)												2			1					3
Were reference points such as street signs, address, permanent landscaping, etc. captured in photographs? (Medium)											1				1					2
Were pictures taken of all marks placed in response to USA ticket? (Medium)															1					1
Low				1							3				6		1			11
Were the facilities marked per PG&E Standards? (Low)				1							2				3		1			7
Were beginning and end of delineated work area in the photograph? (Low)															2					2
Were distance photos to include scope of excavation captured? (Low)											1				1					2
Grand Total				1							5	2			9		1			18



Locate and Mark Summary

YTD 2018

Locate and Mark – Quality Assurance Summary – December 2018

Locate and Mark – Quality Assurance Summary – December 2018

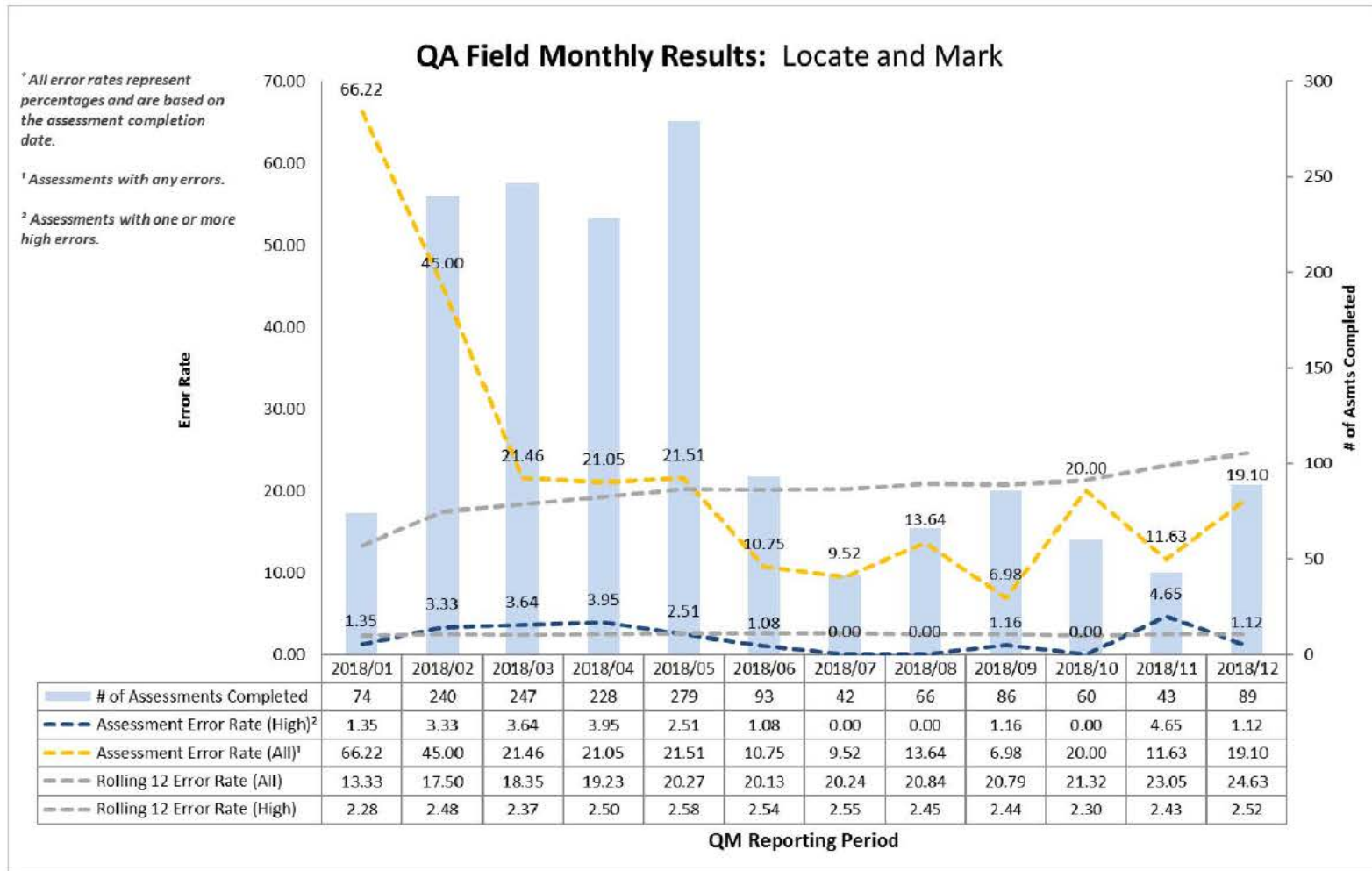
Data Period: 11/24/2018 – 12/31/2017

Assessment Level Summary	CC	DA	DI	EB	FR	HB	KE	LP	MI	NB	NV	PN	SA	SF	SI	SJ	SO	ST	YO	Grand Total
Assessments w/ Findings	6	18	22	18	19	0	12	10	23	26	13	23	54	16	53	27	7	16	18	381
Assessments Completed	63	63	84	98	80	33	68	26	77	66	45	89	232	56	110	129	66	76	86	1547
Error Rate (Assessment Level)	9.52	28.57	26.19	18.37	23.75	0.00	17.65	38.46	29.87	39.39	28.89	25.84	23.28	28.57	48.18	20.93	10.61	21.05	20.93	24.63

Findings Summary	CC	DA	DI	EB	FR	HB	KE	LP	MI	NB	NV	PN	SA	SF	SI	SJ	SO	ST	YO	Grand Total
High		4			3		1	2	2		1	3	5	5	1	4	1	5	3	40
Were all facilities with-in the delineated area marked? (High)		2			2			1	1		1	2						4	2	15
Were pictures taken? (High)					1								4	1	1	1		1		9
Were all markings verified within 24"? (High)		1					1	1				1		2		1			1	8
Are practical delineations present? (High)		1											1	2		2				6
Other High Priority Issues: See Comments (N/A for no finding, No for fail)									1								1			2
Medium	4	14	17	14	17		10	8	16	18	6	11	16	9	19	20	2	8	7	216
Were ticket times entered appropriately into ltrhNet? (Medium)	4	11	17	14	16		10	8	16	18	4	10	13	9	16	20	2	3	6	197
If ticket details do not match delineations at excavation site, was the conversation with the excavator documented? (Medium)		1			1						1							3		6
Were pictures taken of all marks placed in response to USA ticket? (Medium)		2										1			1				1	5
Were reference points such as street signs, address, permanent landscaping, etc. captured in photographs? (Medium)											1		3		1					5
Was the ticket marked within two working days (not including the date of notification) or by the ticket's start date? (Medium)															1			1		2
Was a new start time renegotiated correctly? (Medium)																		1		1
Low	2	6	9	7	1		1	2	7	6	6	14	42	4	47	3	5	10	8	180
Were the facilities marked per PG&E Standards? (Low)	2	6	9	6					6	5	3	13	25	3	27	3	2	3	6	119
Were beginning and end of delineated work area in the photograph? (Low)							1	2				1	10	1	9			5	1	30
Were the correct facility types selected as appropriate? (Low)										1	2		3		7		3	1		17
Were distance photos to include scope of excavation captured? (Low)				1							1		2		4					8
Were least amount of necessary markings used to identify facilities? (Select NO if jobsite was over marked) (Low)													2						1	3
Was the appropriate marking tool used? (i.e. paint, flags, whiskers) (Low)									1											1
If map correction was needed, was documentation completed? (Low)					1													1		1
Was the response (or responses) to ticket appropriate? (Low)																				1
Grand Total	6	24	26	21	21		12	12	25	24	13	28	63	18	67	27	8	23	18	436



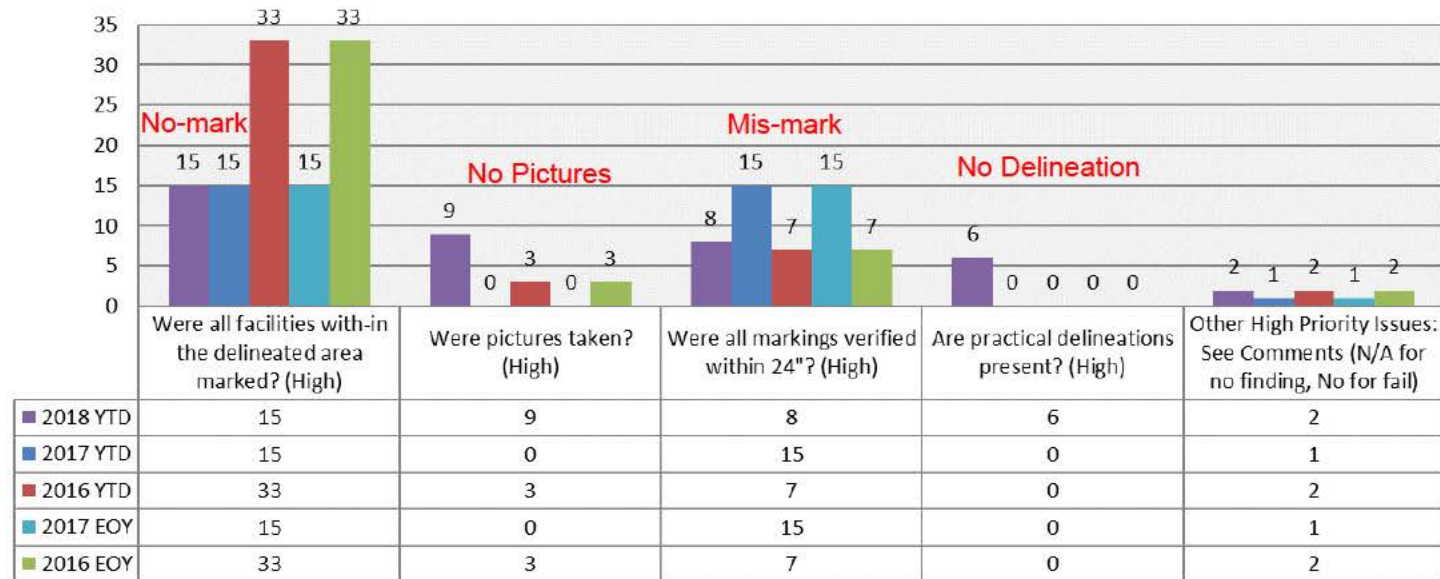
Trend: Locate and Mark





Top High – 2018 YTD

2018 vs 2016/2017 Top 5 Issues Trending



Rank	Category (top 5 issues)	2018 YTD	2017 YTD	2016 YTD	YTD Trend	2018 EOY Projectio	2017 EOY	2016 EOY
1	Were all facilities with-in the delineated area marked? (High) No-mark	15	15	33	N/A	17	15	33
2	Were pictures taken? (High) No Pictures	9	0	3	Unfavorable	10	0	3
3	Were all markings verified within 24" (High) Mis-mark	8	15	7	Favorable	9	15	7
4	Are practical delineations present? (High) No Delineation	6	0	0	Unfavorable	7	0	0
5	Other High Priority Issues: See Comments (N/A for no finding, No for fail)	2	1	2	Unfavorable	2	1	2

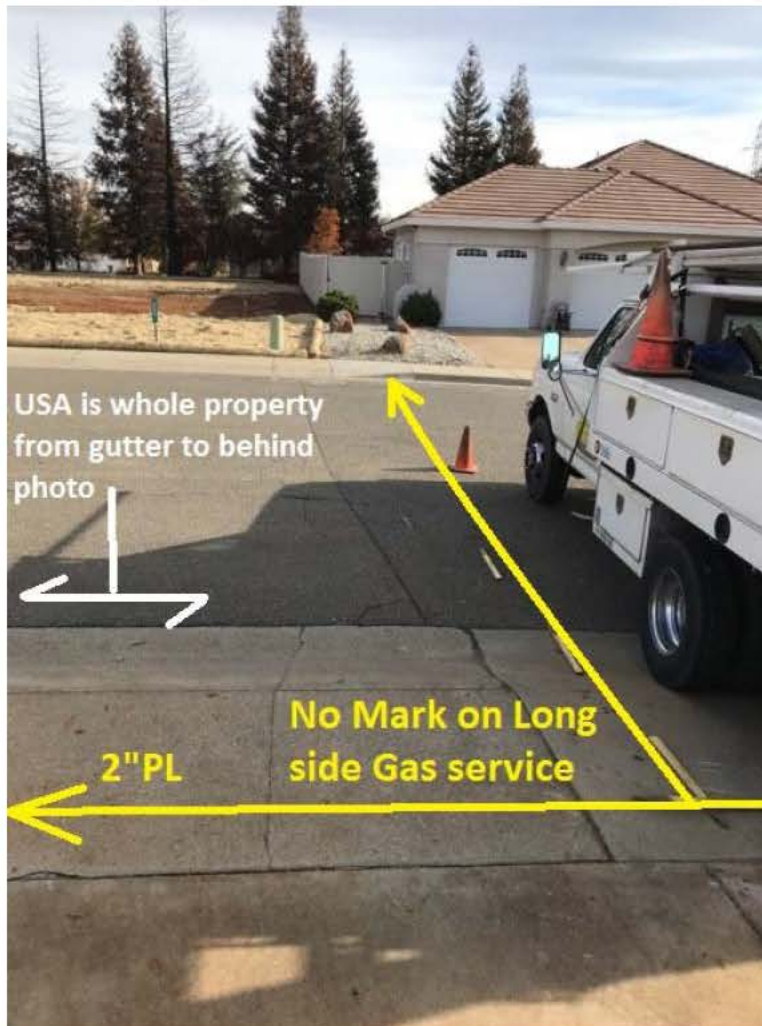


Field High Finding (December)

Assessment Date	Assessment #	Ticket #	Finding	Supervisor	Specialist	Approval Date
12/07/2018	LM-NV-18-2338	X833802022	No-mark	[REDACTED]	[REDACTED]	12/13/2018



Field High Finding Photos (1)



LM-NV-18-2338: No-Mark (High)

Locator did not mark 1/2 " long side service within delineation.

Appendix





QA Field QPIC Summary

		Mo. Target	YTD Target	Prior Period	Current Period Findings	YTD Findings	Current Period Assessments	YTD Assessments	EOY Planned Assessments	% Complete	12 Mo. Rolling Findings	EOY Green Targets	EOY Red Threshold
Overall QA Metric - FIELD (BPR)		25	251	● 5	● 4	● 259	277	6,350	6,342	100%	243	≤251	>323
Process	Process Owner	Mo. Target	YTD Target	Prior Period	Current Period Findings	YTD Findings	Current Period Assessments	YTD Assessments	EOY Planned Assessments	% Complete	12 Mo. Rolling Findings	EOY Green Targets	EOY Red Threshold
Transmission Construction	Kenny	0	10	● 0	● 0	● 5	62	828	828	100%	5	≤10	>13
Distribution Construction (GC + Cont.)	Kenny	1	18	● 1	● 0	● 12	58	505	496	102%	12	≤18	>23
Leak Survey	■	0	15	● 0	● 0	● 22	0	223	210	106%	22	≤15	>20
Distribution Maintenance (Division + Leak Repair)	■	8	50	● 1	● 3	● 39	52	1,692	1,701	99%	39	≤50	>64
Damage Prevention (Locate & mark)	Klemm	4	34	● 2	● 1	● 40	89	1,547	1,547	100%	40	≤34	>43
GPOM (Reg, Valve, Rotary Meters)	■	0	6	● 0	● 0	● 2	13	330	335	99%	2	≤6	>8
Corrosion (Rectifiers, PTS)	Armato	0	2	● 0	● 0	● 1	0	324	324	100%	1	≤2	>4
Field Service (GSR, Rotary Meters)	MacAleese	10	105	● 1	● 0	● 122	3	901	901	100%	122	≤105	>134

Process	Definition
Quality Assurance Metric - Field	Sum of High Findings for all processes
Process Level - Field	Count of High Findings for each process



2018 BPR Targets

	Monthly BPR RAG Scale				YTD BPR RAG Scale		
	Green	Amber	Red		Green	Amber	Red
Jan	≤1		>1		≤1		>1
Feb	≤2		>3		≤3		>4
Mar	≤4		>5		≤7		>9
Apr	≤3		>4		≤10		>13
May	≤3		>4		≤13		>17
Jun	≤2		>3		≤15		>20
Jul	≤2		>3		≤17		>23
Aug	≤3		>4		≤20		>27
Sep	≤3		>4		≤23		>31
Oct	≤2		>3		≤25		>34
Nov	≤5		>6		≤30		>40
Dec	≤4		>5		≤34		>44
Total	≤34		>44				

Note:

The targets are based on historical assessments completed by month.



2018 QM Reporting Periods

Reporting Month	Data time period reported
January	01/01/18 - 01/24/18
February	01/25/18 - 02/21/18
March	02/22/18 - 03/24/18
April	03/25/18 - 04/23/18
May	04/24/18 - 05/24/18
June	05/25/18 - 06/23/18
July	06/24/18 - 07/24/18
August	07/25/18 - 08/24/18
September	08/25/18 - 09/23/18
October	09/24/18 - 10/24/18
November	10/25/18 - 11/23/18
December	11/24/18 - 12/31/18

Quality Assurance Results - DATA

Locate and Mark
Instrument Calibrations and USA Ticket Reviews

December 2018 Reporting Period





QA Data Executive Summary

Process	BPR RAG Status (Current)	High Findings (Current)	BPR RAG Status (YTD)	High Findings (YTD)	Notes
Instrument Calibrations - Locate and Mark		0		2	<ul style="list-style-type: none">• QA reviewed 285 assessments for the December reporting period.• There are no high findings for the current period. <p><i>Note: (1) High finding was work performed by a contractor</i></p>



QA Data – Instrument Calibration Summary

Current Period

	CC	DA	DI	EB	FR	HB	KE	MI	NB	NV	PN	SA	SF	SI	SJ	SO	ST	YO	Total
Record Level Summary																			
Records w/ Findings	0	0	0	0	0	0	3	0	0	0	0	1	0	0	0	0	1	0	5
Records Reviewed	0	5	34	0	20	31	12	20	30	5	30	22	0	12	24	19	7	14	285
Error Rate (Record level)	N/A	0.00	0.00	N/A	0.00	0.00	25.00	0.00	0.00	0.00	0.00	4.55	N/A	0.00	0.00	0.00	14.29	0.00	1.75
Findings Summary																			
High																			
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Medium																			
Calibration records not complete.	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Low																			
Calibration records not filled out properly.	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	4
Total	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	4

Note: Data shown is based on the date of record review.

	Top 3 Performers
	Bottom 3 Performers



QA Data – Instrument Calibration Summary YTD

	CC	DA	DI	EB	FR	HB	KE	MI	NB	NV	PN	SA	SF	SI	SJ	SO	ST	YO	Total
Record Level Summary																			
Records w/ Findings	0	2	0	6	3	0	4	1	0	4	0	4	0	0	1	0	7	6	38
Records Reviewed	90	66	148	63	150	32	80	84	87	49	96	77	49	32	132	131	102	210	1678
Error Rate (Record level)	0.00	3.03	0.00	9.52	2.00	0.00	5.00	1.19	0.00	8.16	0.00	5.19	0.00	0.00	0.76	0.00	6.86	2.86	2.26
Findings Summary																			
High																			
Locate and mark instruments not calibrated at proper intervals.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
Medium																			
Calibration records not complete.	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	3
Total	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	3
Low																			
Calibration records not filled out properly.	0	2	0	5	2	0	4	1	0	4	0	3	0	0	1	0	6	5	33
Total	0	2	0	5	2	0	4	1	0	4	0	3	0	0	1	0	6	5	33

Note: Data shown is based on the date of record review.

	Top 3 Performers
	Bottom 3 Performers



QA Data – USA Ticket Summary

Current Period

	CC	DA	DI	EB	FR	HB	KE	LP	MI	NB	NV	PN	SA	SF	SI	SJ	SO	ST	YO	Total
Record Level Summary																				
Records w/ Findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Records Reviewed	0	26	2	30	22	51	22	0	0	2	28	0	30	15	28	14	17	11	0	298
Error Rate (Record level)	N/A	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	0.00	0.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	N/A	0.00
Findings Summary																				
High																				
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Medium																				
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Low																				
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: Data shown is based on the date of record review.

	Top 3 Performers
	Bottom 3 Performers



QA Data – USA Ticket Summary YTD

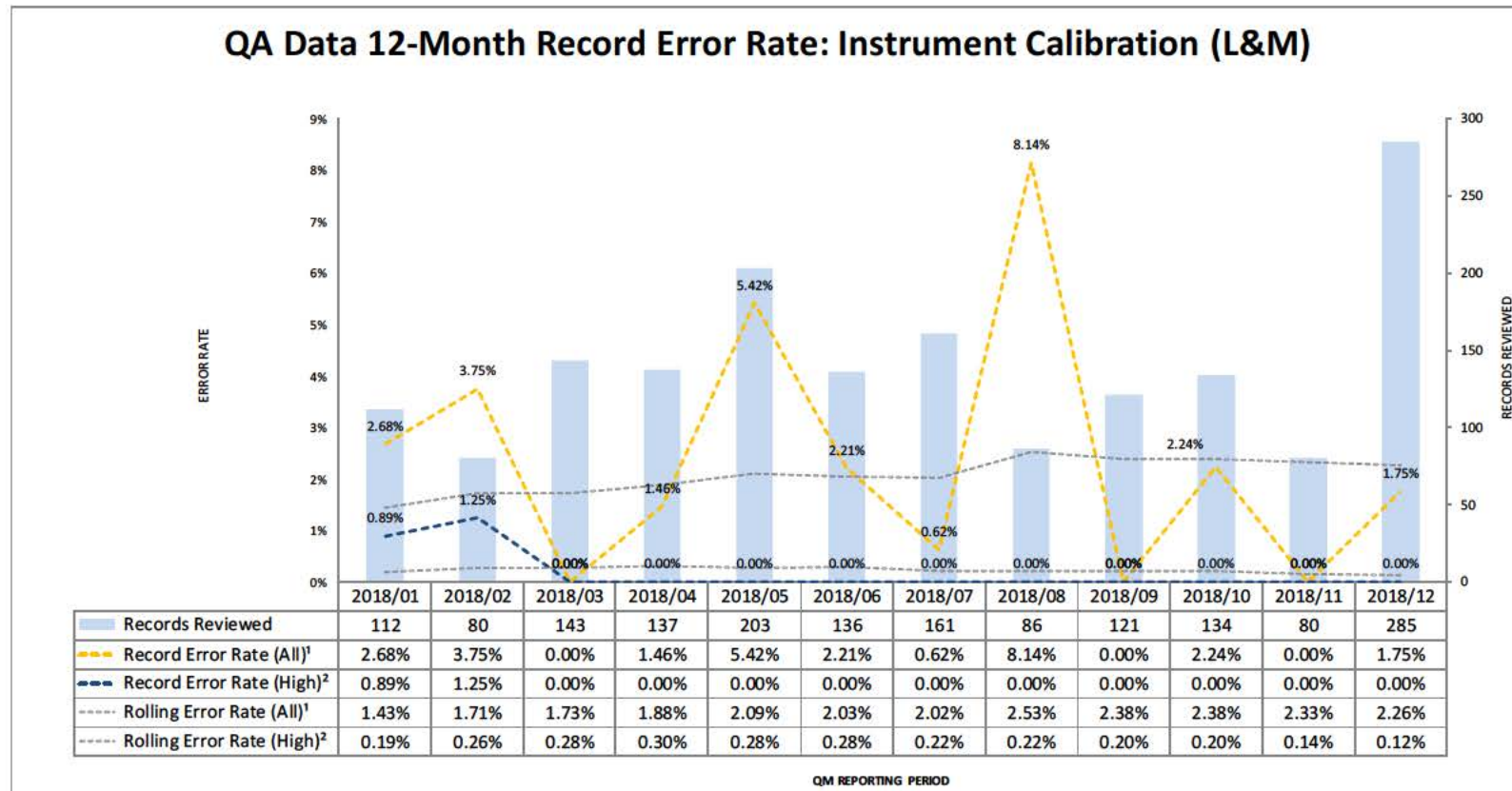
	CC	DA	DI	EB	FR	HB	KE	LP	MI	NB	NV	PN	SA	SF	SI	SJ	SO	ST	YO	Total
Record Level Summary																				
Records w/ Findings	0	1	0	3	1	0	1	0	0	0	0	0	4	0	0	2	0	3	7	22
Records Reviewed	124	117	96	136	88	126	88	30	91	117	113	132	135	120	127	127	117	99	96	2079
Error Rate (Record level)	0.00	0.85	0.00	2.21	1.14	0.00	1.14	0.00	0.00	0.00	0.00	0.00	2.96	0.00	0.00	1.57	0.00	3.03	7.29	1.06
Findings Summary																				
High																				
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Medium																				
Facilities in the delineation not photographed.	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	1	0	4
Total	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	1	0	4
Low																				
Beginning and end of delineated work area not in the photograph.	0	0	0	1	1	0	1	0	0	0	0	0	1	0	0	2	0	2	7	15
Incorrect facility types selected.	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Pictures are not clear.	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Distance photos to include scope of excavation not captured.	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	3	1	0	1	0	0	0	0	0	1	0	0	2	0	2	7	18

Note: Data shown is based on the date of record review.

	Top 3 Performers
	Bottom 3 Performers



QA Data – Trend: Instrument Calibration

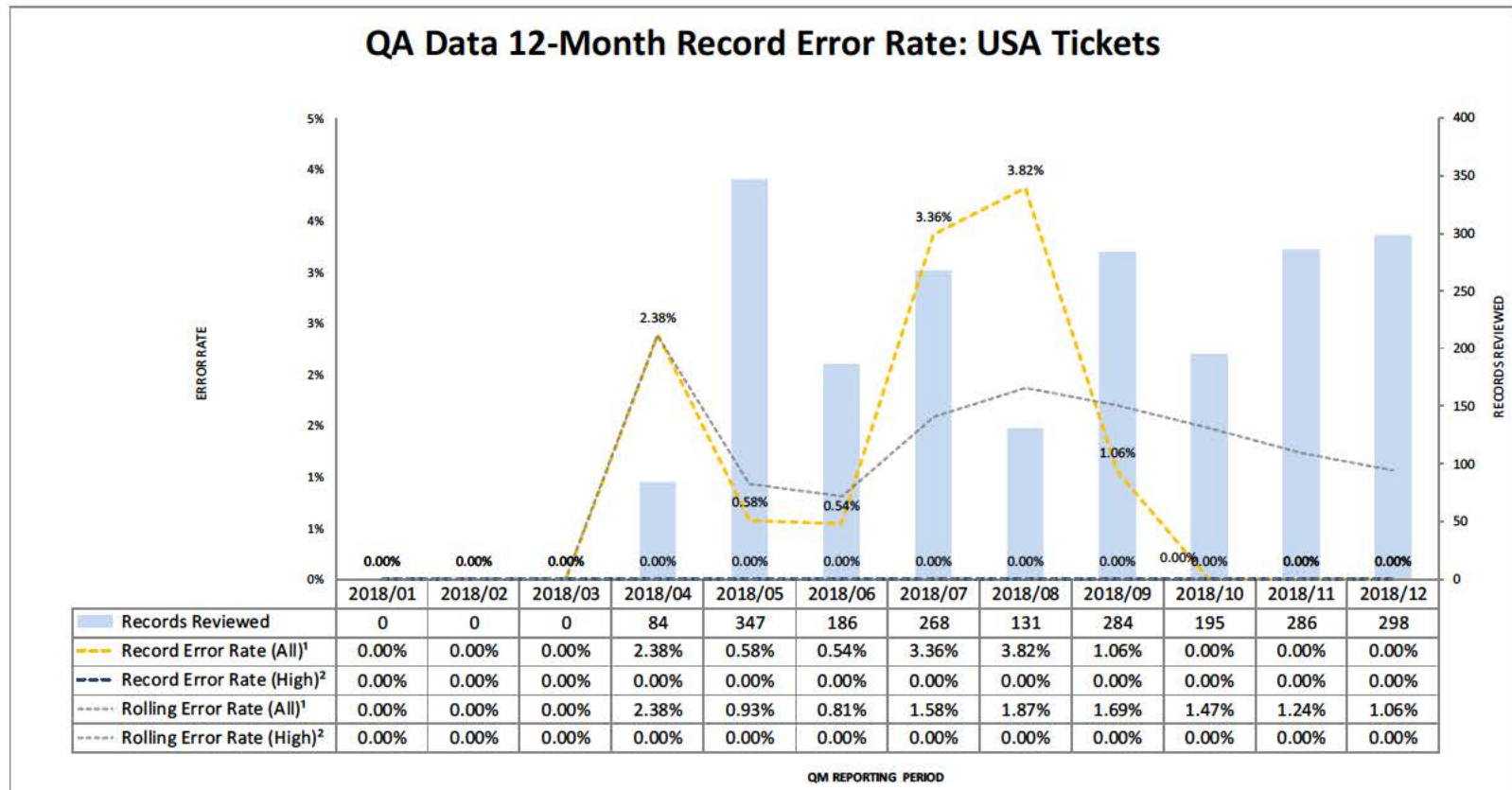


¹Records with any errors.

²Records with one or more high errors.



QA Data – Trend: USA Tickets



¹Records with any errors.

²Records with one or more high errors.



QA Data QPIC Summary

		Mo. Target	YTD Target	Prior Period	Current Period Findings	YTD Findings	Current Period Assessments	YTD Assessments	EOY Planned Assessments	% Complete	12 Mo. Rolling Findings	EOY Green Targets	EOY Red Threshold
Overall QA Metric - DATA (BPR)		15	156	● 4	● 7	● 57	4,138	25,504	24,435	104%	57	≤156	>289
Process	Process Owner	Mo. Target	YTD Target	Prior Period	Current Period Findings	YTD Findings	Current Period Assessments	YTD Assessments	EOY Planned Assessments	% Complete	12 Mo. Rolling Findings	EOY Green Targets	EOY Red Threshold
Transmission Construction	Kenny	1	12	● 0	● 0	● 0	13	100	100	100%	0	≤12	>21
Distribution Construction (GC + Cont.)	Kenny	0	1	● 0	● 0	● 0	5	70	70	100%	0	≤1	>5
Leak Survey	■	1	3	● 0	● 0	● 0	1,535	7,511	6,956	108%	0	≤3	>6
Distribution Maintenance (Division + Leak Repair)	■	11	128	● 4	● 7	● 50	610	5,396	5,372	100%	50	≤128	>230
Damage Prevention (Locate & mark)	Klemm	0	1	● 0	● 0	● 2	285	1,570	1,553	101%	2	≤1	>5
GPOM (Reg, Valve, Odorization)	■	2	10	● 0	● 0	● 1	1,271	5,646	5,233	108%	1	≤10	>17
Corrosion (Rectifiers, PTS)	Armato	0	1	● 0	● 0	● 4	419	5,211	5,151	101%	4	≤1	>5

Process	Definition
Quality Assurance Metric - Data	Sum of High Findings for all processes
Process Level - Data	Count of High Findings for each process



Calibration Records – High Finding Details

Division	Review Date	Date of Maintenance	Instrument	Instrument Model	Transmitter #	Receiver #	Criticality	Question Missed	Reviewer Comments
Stockton	1/22/2018	2017 Q3	Pipehorn	800	Transmitter: 52926	Receiver: 52927	High	Locate and mark instruments not calibrated at proper intervals.	NCF - Jun-July Calibration > 45 Days.
Yosemite	2/21/2018	1/1/1900	Pipehorn	800-HI	Transmitter 8411008	Receiver 8411008	High	Locate and mark instruments not calibrated at proper intervals.	November calibration line not filled in.

* CD = Compliance desk

* NCF = Non-correctable finding

EXHIBIT 61

Locate & Mark Special Attention Review (SAR)

Gas T&D Operations

February 4th 2019



Together, Building
a Better California

- Life Safety
- Introductions
- Ground Rules
- Gas Operations Guidepost
- Review Action Plan
(See Word Document)
- (Place Holder)
- (Place Holder)
- Meeting Adjourned



Ground Rules

- Assume and have positive intent
- Act with genuine humility
- Think big
- Have each other's back
- Have fun!
- Listen for understanding
- Seek alternative perspectives
- Explore unintended consequences
- It's okay to say "I don't know"
- Have direct conversations to foster healthy relationships
- Respect each other
- Demonstrate support for others in the room
- Encourage and provide space for everyone to participate
- Say what you're thinking in the room
- Own decisions and outcomes
- Accept and learn from mistakes
- At the start of meetings clarify desired outcomes and make the decision making process overt
- We stop meetings that go off course and regroup
- At the close of meetings review MOLOSA and action items

Gas Operations Guidepost

- **Safety as our absolute core value and non-negotiable top priority;** ensure that actions continue our journey to reduce enterprise risk and promote compliance
- Ensure actions do not negatively impact **customer experience**
- Safety and affordability **are not a trade-off; rather, they go hand-in-hand** – the lower our per-unit cost, the more work we can do to reduce risk
- Build a credible, achievable, bankable plan through 2019 to close our cost gap, and deliver upon our rate case commitments – without paralysis by analysis
- Enable **financial stewardship mindset, behavior and accountabilities** that appropriately **position PG&E for the future**
- Be bold and **bring fresh eyes** to everything we do
- Engage all employees in the journey; **build a culture of continuous improvement and celebrate successes**

L&M SAR Project Scope

Decision	✓
Informational	✓

Scope of Project

Review L&M processes to identify potential gaps based on 5 year performance results, DQM assessment results, IA audit results and AGA Peer Review feedback. Then identify actions and controls that will improve the quality and accuracy of ticket completion specifically around “late tickets”.

Reason

- Tickets are not being processed meeting the required 48 hour timeline
- Tickets are not properly processed in the field
- PG&E is not accurately reflecting the status of tickets
- Resource availability
- Inadequate training
- Require technology enhancements & controls

Next Steps

- Review trends and feedback
- Identify gaps
- Identify controls/improvement opportunities
- Communications to end users
- Develop Plan
- Schedule
- Implementation

Impact (if any)

- Non-compliance
- Increased dig-ins
- Delays to 3rd party excavation
- Financial

Feedback from Leadership

L&M SAR Action Plan Results

L&M Action Plan

Open/Completed

Status of Remaining Action Items

Findings

12 of 14
completed

86%

- Action Item #5 sub-part 2 “Critical Facility and Standby Procedure update” is in progress and is targeted for completion by 2/22/19
- Action Item #3 sub-part 8 “QEW Staffing Issues” is in progress and is targeted for completion by 3/13/19
- Action Item #12 sub-part 2 “*Deliverables: Evaluate L&M place on the roadmap to determine if it can be escalated to bring enhanced technology to drive process improvements.*” Completed 12/15/2018

Corrective Actions Created from Findings

45 of 47
completed

96%

Status of open Corrective Actions are noted above.

AGA CAP Items

13 of 13
completed

100%

- CAP 112804034 L&M Contracting, due 11/29/18.

Internal Audit Findings

3 of 3
completed

100%

•

Internal Audit Update

SAR Item Number	Description	Reviewed by IA
1	Late ticket reporting discrepancies and control gaps	Complete
2	Quality management and quality control review processes	Complete
3	Employee morale and turn-over rate	
4	Compliance with requirements for marking newly installed facilities	In progress
5	Definition of critical facilities and standby process	In progress
6	Mapping correction timeliness	In progress
7	One Call wait times	In progress
8	2016 At-Fault Dig-In root cause analyses	In progress
9	Supervisor/Superintendent process to review/address late tickets	Complete
10	Update to regulators on late ticket issues	In progress
11	Independent third-party fact-finding investigation of late ticket data	Complete
12	Digital Catalyst updates for mapping changes	In progress
13	Fixes to the 811 Call Center	In Progress
14	Concerns over loss/potential loss of key Locate and Mark positions	



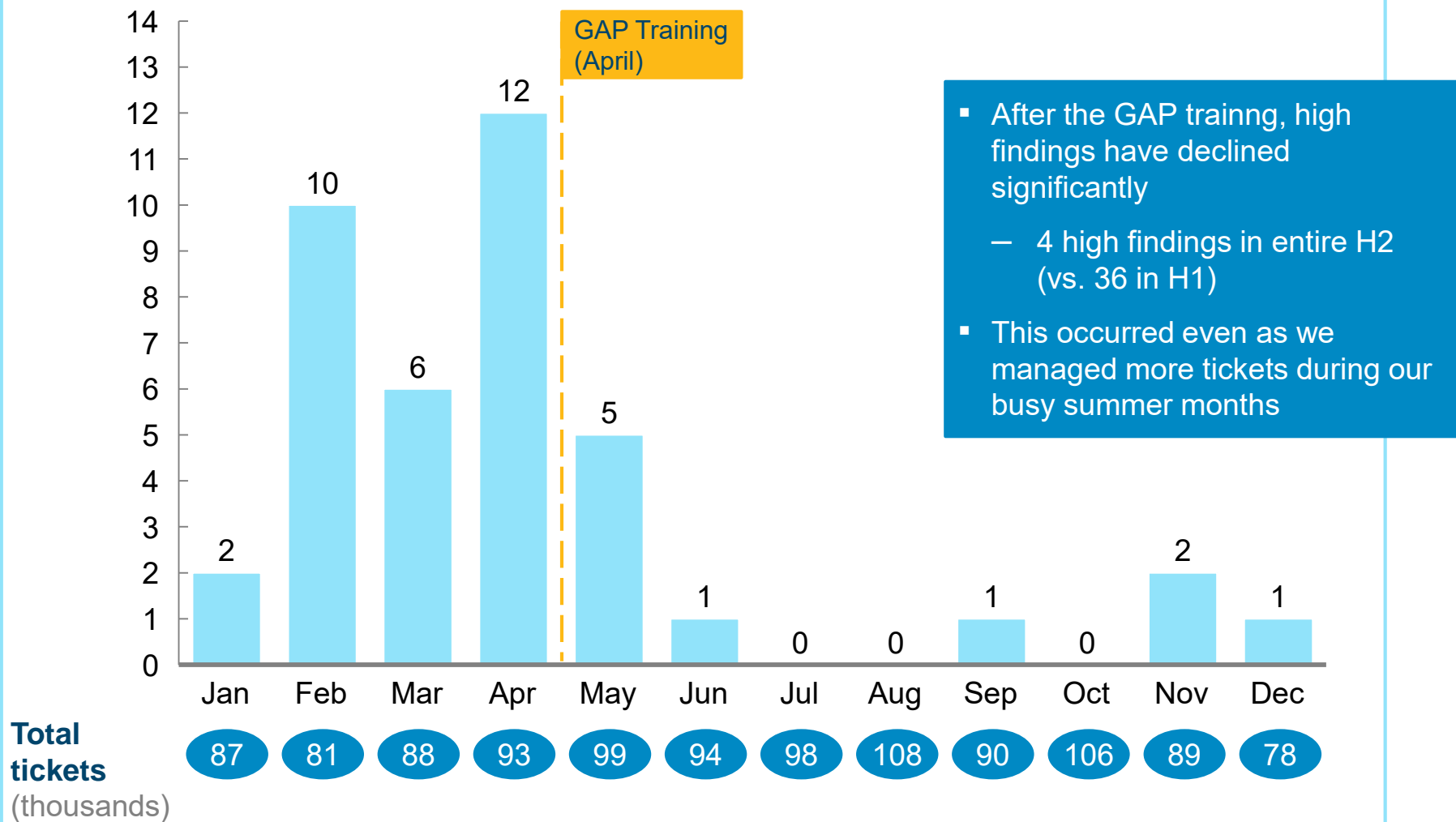
SAR Action Item- Update

Item 6: Process

Mapping corrections are not being processed timely which can result in potential damages due to delays and errors.

Quality performance improved over the course of 2018

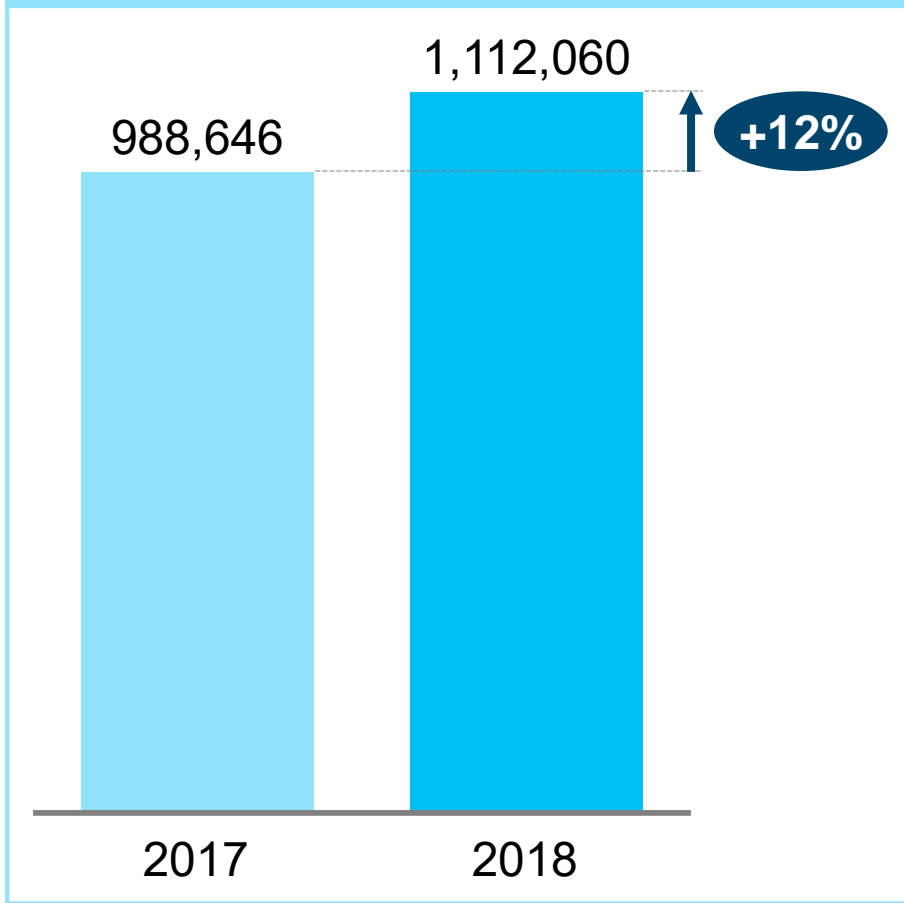
Quality - High findings by month, 2018



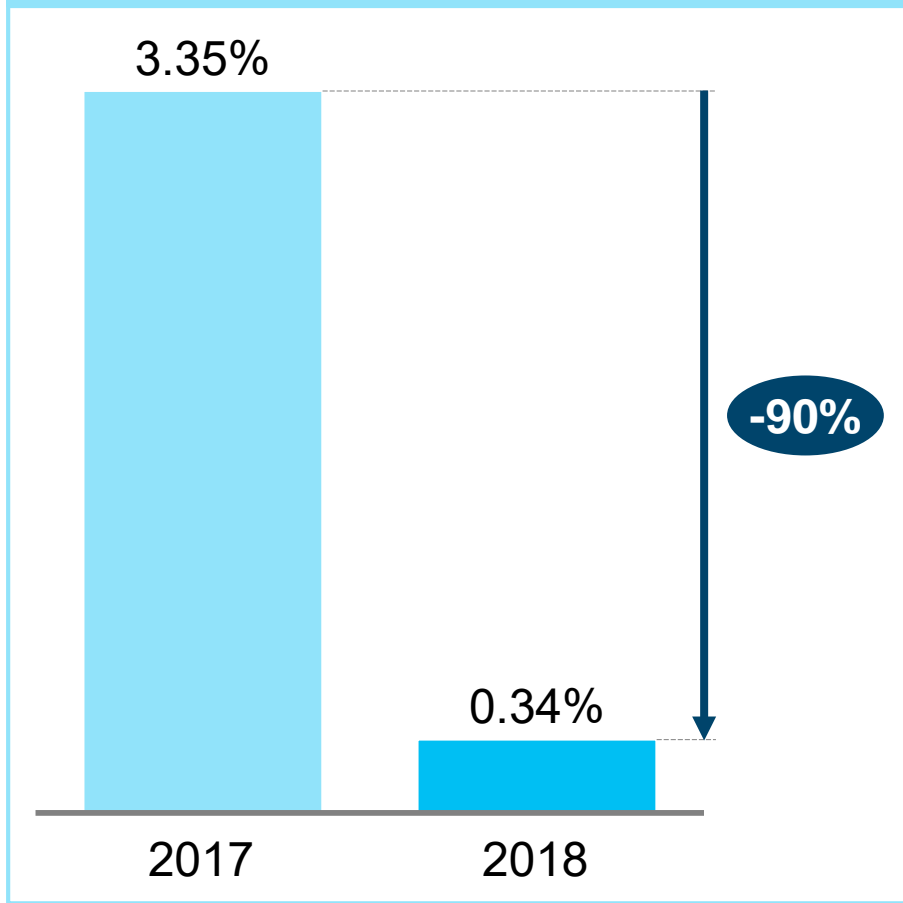


Together we've handled even more tickets this year while also reducing our late ticket rate by 90%

Total Tickets **up 12%** for 2018 EOY vs. 2017



Late Ticket rate **down 90%** for 2018 EOY vs. 2017

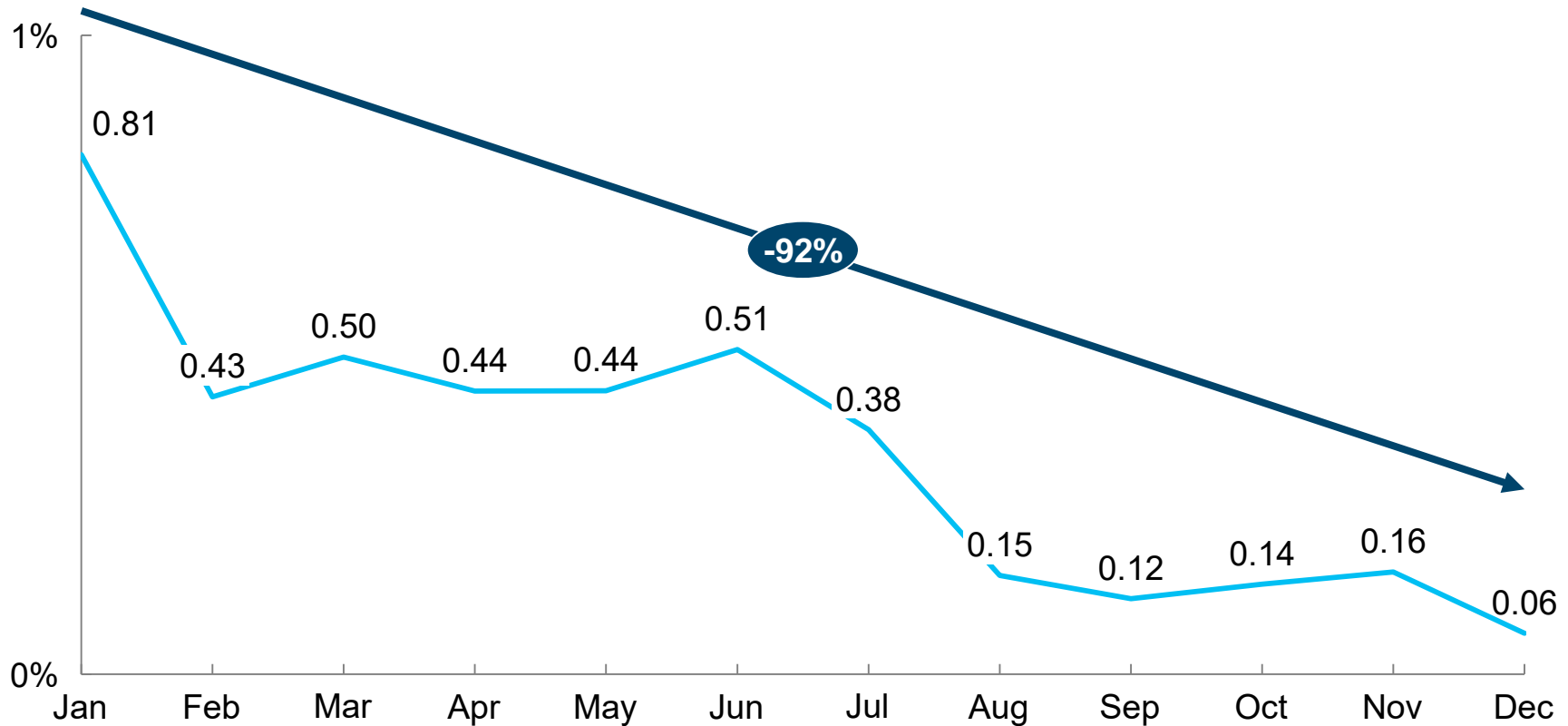




Our late ticket rate has declined over the course of this year, even as total tickets increased

Late ticket rate by month, 2018

Late tickets as % of total tickets



Total tickets (000s)	87	81	88	93	99	94	98	108	90	106	89	78
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Recommendation:

Create control points that, if activated, prompt the SAR to re-open to perform a comprehensive review of the breakdown to develop corrective actions that include process health and accurate reporting.

1. Activation of the SAR is needed to support the completion of the remaining two open corrective actions.
2. Quality Assurance, Quality Control, or Internal Audit identify a late ticket through their assessments that is late but does not show up on our IRTHNET late ticket dashboard.
3. Field employees identify a gap (through CAP or escalation) in IRTHNET system that allows for tickets to not be marked timely and not show up on the late ticket dashboard.
4. At Fault Dig-in Investigation finds a late ticket that could have contributed to a dig-in but was not indicated on late ticket reporting.
5. Internal Audit findings find some of the L&M SAR Action item corrective actions to be deficient.
6. Staffing Challenges arise that make completion of required work very difficult and cross functional collaboration needed to solve

Questions

EXHIBIT 62

File Date	Personnel Number	First Name	Last Name	Position Title	Job Title	Organization Unit (Department)
12/31/2012	832	James	Pope	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - Diablo
12/31/2012	4705	Robert	Young	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services PN - Daly City
12/31/2012	5505	Ronald	Malone	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services CC - Salinas
12/31/2012	5531	Lacey	Richardson	Supervisor, Distribution Gas	Distribution, Supervisor-Nonexempt	M&C - Leak Survey - Sacramento
12/31/2012	6716	James	Rechtin	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Mission
12/31/2012	10713	Shane	Doong	Supervisor - Construction Engineering	Construction Engineering, Supvr-Nonexemp	M&C - GC Gas - CCR Construction Engg
12/31/2012	17747	Jason	Tanihara	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - San Rafael/Vallejo/Napa
12/31/2012	21418	Daniel	Tucker	Gas & Electric Services Supervisor	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services EB - Richmond
12/31/2012	21578	Timothy	Arterberry	Distribution Superintendent	Distribution Superintendent	M&C Gas - CVR - Stockton/Yosemite
12/31/2012	21601	Randy	Lavering	Manager, Field Services	Customer Services, Manager	Field Services Area 2
12/31/2012	21668	Frank	Malcria	Superintendent, M&C Gas Fresno/Kern	Gas Maintenance, Superintendent	M&C Gas - CVR - Fresno/Kern
12/31/2012	22126	Tim	Bellinghausen	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - San Carlos
12/31/2012	22391	Gary	Clark	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - Mission
12/31/2012	25985	David	Bandoni	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Fresno
12/31/2012	26579	Steven	Burks	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - San Francisco 01
12/31/2012	26904	William	Tom	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs SF - SF 01
12/31/2012	27084	Jodie	Kubota	Dir, M&C Gas, Central Coast Region	Director	M&C Gas - Central Coast Region
12/31/2012	27876	Ross	Lindblom	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services DI - Antioch
12/31/2012	27931	Omar	Macay	Distribution, Supervisor	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - San Francisco 02
12/31/2012	28941	Rodney	Jordan	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - Stockton
12/31/2012	29304	Gregory	Cobarrubias	Manager, Field Services	Customer Services, Manager	Field Services Area 5
12/31/2012	30253	Darryl	Williams	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R Corrosion - Sacramento
12/31/2012	30706	Jerry	Wiley	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C - Corrosion & Regulation - Fresno
12/31/2012	31671	Mark	Stefani	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services PN - San Carlos
12/31/2012	32152	Christopher	Quintana	Distribution Gas Supvr	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - San Rafael
12/31/2012	33422	David	Lane	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Fremont
12/31/2012	33639	Dean	Churchwell	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Hayward
12/31/2012	35564	John	Ghigliazza	Superintendent M&C Gas Humboldt/Sonoma	Distribution Superintendent	M&C Gas - NR - Sonoma/Humboldt
12/31/2012	37242	Blaine	Cobb	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs FR - Fresno 01
12/31/2012	37512	Fred	Belmontez	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Dispatch RMC Fresno 02
12/31/2012	38126	Todd	Gibson	Gas & Electric Services, Supvr-Nonexempt	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs SA - Sac 03
12/31/2012	39037	Kevin	Ward	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C Area 5 GC Gas Constr - Yosemite
12/31/2012	39099	David	Cuffman	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services NB - Vallejo

12/31/2012	39120	Steve	Urquidi	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C Gas CCR-CC
12/31/2012	39427	Randall	Silva	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Livermore
12/31/2012	40592	Miguel	Lopez	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Dispatch RMC Concord 02
12/31/2012	40969	Kenneth	Martin	Gas Distribution Supervisor	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Merced
12/31/2012	41541	Keith	Fisher	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Svcs SJ - Cinn 01
12/31/2012	41754	Gary	Krahmer	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Modesto
12/31/2012	41970	Jonathan	Little	Distribution Superintendent	Distribution Superintendent	M&C Gas - General Construction
12/31/2012	43000	Robert	Reader	Supervisor - Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Redding/Chico
12/31/2012	43140	Edward	Rose	Manager, Field Services	Customer Services, Manager	Field Services Area 4
12/31/2012	43184	Donnie	Jue	Manager, Mtce & Constr Compliance	Manager, Gas Mtce & Constr Compliance	Gas Operations - Compliance
12/31/2012	43234	Donald	Jones	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Richmond
12/31/2012	43492	Gavin	Long	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - San Francisco 01
12/31/2012	43748	Joseph	Ojeda	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Concord/Antioch
12/31/2012	44282	Michael	Raab	Distribution Superintendent	Distribution Superintendent	M&C Gas - Central Valley Region
12/31/2012	45514	Doug	Bounds	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Dispatch RMC Concord 03
12/31/2012	45532	Gordon	Fehlman	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Monterey
12/31/2012	45549	Brett	Jennings	Gas & Electric Services, Supvr-Nonexempt	Gas & Electric Services, Supvr-Nonexempt	Field Services Area 6
12/31/2012	45925	P	Limon	Distribution Supervisor	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - Central Coast
12/31/2012	46594	Robert	Toto	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - San Francisco 05
12/31/2012	47176	Lorene	Harden	Director, M&C Gas, Northern Region	Director	M&C Gas - Northern Region
12/31/2012	47493	Terrence	Williams	Manager, Field Services	Customer Services, Manager	Field Services Area 6
12/31/2012	47902	Mary	Coffin	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C Gas - GC - Northern Region
12/31/2012	48303	William	Tating	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - M&L - San Francisco
12/31/2012	48340	Michael	Graham	Superintendent, GC Gas, Centr Valley Reg	Construction, Superintendent	M&C Gas - GC - Central Valley Region
12/31/2012	48773	Robert	Smith	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - North Valley
12/31/2012	49054	Martin	Sveen	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - M&L / LeakSurvey - Yosemite
12/31/2012	49782	George	Fernandes	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services ST - Stockton
12/31/2012	49816	Gerry	Knapp	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Dispatch RMC Fresno 03
12/31/2012	51313	Alan	Dryden	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services KE - Bakersfield
12/31/2012	51490	William	Seib	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Oakport
12/31/2012	51581	Paul	Dymke	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services YO - Merced
12/31/2012	51584	Troy	Amate	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - Oakland
12/31/2012	52701	Ismael	Martin	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Concord
12/31/2012	53000	Joann	Merrill	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C Corrosion Santa Rosa

12/31/2012	53028	Raymond	Hester	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Edenvale
12/31/2012	53182	Kevin	Carver	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs SA - Sac 02
12/31/2012	53484	Carlos	Martinez	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - San Francisco 01
12/31/2012	55349	Kevin	Salazar	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Cupertino
12/31/2012	55455	Nancy	Arnautoff	Resource Supervisor - HU/SO	Work & Resource Scheduling,Supv-Nonxmpt	Resource - HU/SO
12/31/2012	55885	Mark	Milioto	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services SJ - Edenvale
12/31/2012	56119	Rodney	Williams	Director, Field Service North	Utility Operations, Director	Field Services North
12/31/2012	56382	Erik	Kurtz	Supervisor, Distribution Gas Compliance	Distribution, Supervisor-Nonexempt	M&C - T&R Meas & Control - Sacramento
12/31/2012	57263	Larry	Hartsell	Superintendent, Distribution	Distribution Superintendent	M&C Gas - GC - Central Coast Region
12/31/2012	57486	John	Corona	Superintendent, Distribution	Distribution Superintendent	M&C Gas BAR San Francisco
12/31/2012	57586	Ruben	Ramirez	Director, Field Svcs South	Director, Gas Operations	Distribution M&C
12/31/2012	57923	Matthew	Moscato	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Santa Cruz
12/31/2012	58679	Jesse	Manibusan	Customer Field Svcs Team Lead/Supvr	Team Leader-Cust Field Svcs, Supvr-Exmpt	Work & Resource Schedulers
12/31/2012	60277	Bobbie	Weeck	Distribution Gas Supervisor	Distribution, Supervisor-Nonexempt	M&C - M&L / Leak Survey - Concord/Antioc
12/31/2012	60871	Augustine	Ledesma	Distribution Superintendent	Distribution Superintendent	M&C Gas - NR - Sacramento
12/31/2012	61884	Mark	Augustin	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Oakport
12/31/2012	62745	Xavier	De La Rocha	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services DA - Cupertino
12/31/2012	63205	Mark	Creech	Manager, Field Services	Customer Services, Manager	Field Services Area 3
12/31/2012	63215	Vincent	Martinez	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services SI - Roseville
12/31/2012	64830	Curtis	Meredith	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	Corrosion & Compliance
12/31/2012	64851	Anthony	Adams	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Bakersfield
12/31/2012	64901	Christopher	Nelson	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services NC - Eureka
12/31/2012	65043	Wyman	Ko	Night Supervisor, Gas & Electric Service	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs SF - SF 02
12/31/2012	66173	David	Durham	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Stockton
12/31/2012	69932	Stephen	Niegel	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services NV - Redding
12/31/2012	70104	Bob	Stotler	Distribution Superintendent	Distribution Superintendent	M&C Gas Bay Area - Leak Survey Proc Impr
12/31/2012	70387	Joseph	Cummins	Resource Manager	Manager, Gas Operations	Gas Distribution Resource South
12/31/2012	71346	Richard	Fuhrman	Director, Field Service South	Utility Operations, Director	Field Services South
12/31/2012	71379	Albert	Martinez	Distribution Gas Supervisor	Distribution, Supervisor-Nonexempt	M&C - M&L / Leak Survey - Fresno
12/31/2012	71389	William	Basham	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C - T&R Eureka
12/31/2012	72702	Cameron	Rowland	Supervisor, Construction Engineering	Construction Engineering, Supvr-Nonexemp	M&C - GC Gas - BAR Construction Engg
12/31/2012	73880	Grant	Kirk	Superintendent, Distribution	Distribution Superintendent	M&C Gas - CCR - Peninsula/DA
12/31/2012	73953	Gary	Smith	Manager, Field Services	Customer Services, Manager	Field Services Area 1
12/31/2012	74198	Dale	Mann	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Cinnabar
12/31/2012	74379	David	Garcia	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Chico
12/31/2012	74450	John	Martin	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Yosemite

12/31/2012	74769	Robert	Suehiro	Director, General Construction	Director	M&C Gas - General Construction
12/31/2012	74992	Joseph	Lusk	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - Peninsula
12/31/2012	75344	Richard	Salaz	Superintendent, Distribution	Distribution Superintendent	M&C Gas - GC - Bay Area Region
12/31/2012	76386	Randy	Uda	Manager, Field Services	Customer Services, Manager	Field Services Area 7
12/31/2012	78912	Gustave	Quiroz	Supervisor, Construction Engineering	Construction Engineering, Supvr-Nonexemp	M&C - GC Gas - CVR Construction Engg
12/31/2012	79169	Dennis	Panoo	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Fresno
12/31/2012	79857	Karlene	Silva	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Santa Rosa
12/31/2012	80094	Ronald	Huggins	Distribution Superintendent	Distribution Superintendent	M&C Gas - GC - Northern Region
12/31/2012	80310	Ron	Villa	Supervisor	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - Vacaville
12/31/2012	80858	Kevin	Dunn	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C Gas - Leak Survey - Oakport
12/31/2012	81205	David	Acebo	Manager, Customer Services	Customer Services, Manager	Dispatch RMC
12/31/2012	81646	Ronald	Abellana	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - M&L / Leak Survey - San Carlos
12/31/2012	81887	Christine	Sylvester	Resource Supervisor - FR/KE	Work & Resource Scheduling, Supv-Nonxmpt	Resource - FR/KE
12/31/2012	81924	Colin	MacDonald	Distribution Supervisor	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - North Coast
12/31/2012	82350	Lorin	Toney	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C Gas - GC - Central Valley Region
12/31/2012	83102	Jimmy	Morales	Manager, Gas Operations	Manager, Gas Operations	Gas Field Service Compliance
12/31/2012	83159	Eric	Kropp	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Central Coast
12/31/2012	83344	Mark	Del Bono	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs SF - SF 03
12/31/2012	83542	Steven	Lehr	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs SA - Sac 01
12/31/2012	83634	Dave	Olivo	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - DeAnza
12/31/2012	83903	Fernando	Gonzalez	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services NC - Santa Rosa
12/31/2012	84149	Ross	Leverett	Director, M&C Gas, Cent Valley Region	Utility Operations, Director	M&C Gas - Central Valley Region
12/31/2012	84316	Robert	Fitch	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Leak Survey - Santa Rosa
12/31/2012	84712	John	Costanza	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - Sacramento
12/31/2012	84767	Louie	Hinojosa	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Bakersfield
12/31/2012	85397	Steve	Redding	Director, M&C Gas, Bay Area Regioin	Utility Operations, Director	M&C Gas - Bay Area Region
12/31/2012	86050	Frederick	Quinn	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services SA - Vacaville
12/31/2012	87106	Michael	Smith	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - North Bay
12/31/2012	87386	Marcie	Shelton	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Dispatch RMC Concord 05
12/31/2012	88724	Shonda	Abercrombie	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Compliance - Bakersfield
12/31/2012	89083	Robert	Rinehart	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Stockton East
12/31/2012	89529	Roman	Gonzalez	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Dispatch RMC Fresno 05
12/31/2012	90514	James	Reeves	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Richmond
12/31/2012	90582	Rudolph	Sisneros	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - Fresno
12/31/2012	90716	Rick	Muok	Gas & Electric Services, Supvr-Nonexempt	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services ST Stockton
12/31/2012	108122	Carla	Morse	Supervisor-Nonexempt, Gas Operations	Supervisor-Nonexempt, Gas Operations	M&C - Gas Ops

12/31/2012	108665	Darrell	Feldman	Resource Manager	Manager, Gas Operations	Gas Distribution Resource North
12/31/2012	108911	Jess	Soto	Customer Services, Manager	Customer Services, Manager	Dispatch RMC Fresno 06
12/31/2012	109833	Michael	Harner	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Svcs SJ - Cinn 02
12/31/2012	110039	Stephen	Redding	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services MI - Fremont
12/31/2012	110102	Floyd	Fink	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Auburn
12/31/2012	110637	Kelly	Ball	Superintendent, Distribution	Distribution Superintendent	M&C Gas - CCR - San Jose/CC
12/31/2012	110750	Mario	Martini	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Salinas
12/31/2012	110836	Joel	Hart	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs EB Oakport 01
12/31/2012	110843	Oscar	Garcia	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - San Jose
12/31/2012	111650	Meghan	Murphy	Work & Resource Manager	Work & Resource, Manager	Distribution Coordinators and Schedulers
12/31/2012	111950	Dale	Roberts	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C Diablo Corrosion
12/31/2012	111952	Joseph	Barlow	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services NB - San Rafael
12/31/2012	112026	Katherin	Mack	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C - Locate & Mark- Sacramento
12/31/2012	112260	William	Russo	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - San Francisco 02
12/31/2012	112588	Lynee	Patchell	Resource Supervisor - CC/DA	Work & Resource Scheduling,Supv-Nonxmpt	Resource - CC/DA
12/31/2012	113694	Tylan	Turner	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&D - Sacramento
12/31/2012	113715	William	Meredith	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&D - Vacaville
12/31/2012	113861	Scott	Farrell	Distribution Supervisor	Distribution, Supervisor-Nonexempt	M&C - M&L / Leak Survey - Sierra
12/31/2012	114677	Carlos	Garza	Resource Supervisor - ST/YO	Work & Resource Scheduling,Supv-Nonxmpt	Resource - ST/YO
12/31/2012	115062	Christine	Adams	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - M&L / Leak Survey - San Rafael
12/31/2012	115656	Felipe	Betancourt	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services YO - Modesto
12/31/2012	115846	Karlo	Alaura	Gas & Electric Services, Supvr-Nonexempt	Gas & Electric Services, Supvr-Nonexempt	Dispatch RMC
12/31/2012	115852	Richard	Yamaguchi	Director, Gas Dispatch	Director, Gas Operations	Gas Dispatch
12/31/2012	115860	Luis	Plancarte	Distribution Supervisor	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - San Francisco 04
12/31/2012	115861	Mark	Embree	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services DI - Concord
12/31/2012	116205	Joseph	Thompson	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C - Gas Corrosion & Regulation - Kern
12/31/2012	116218	David	Ferguson	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Redding
12/31/2012	116424	John	Kemp	Mark & Locate Gas Supervisor	Distribution, Supervisor-Nonexempt	M&C - M&L / Leak Survey - Cupertino
12/31/2012	116658	Michael	Bockrath	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C - Corrosion- San Francisco 02
12/31/2012	117055	Roderick	Mills	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R Meas & Control - Sacramento
12/31/2012	119177	John	Camera	M&L and LS Sup.	Distribution, Supervisor-Nonexempt	M&C - M&L / Leak Survey - Salinas
12/31/2012	219087	Steven	Fischer	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - GC Gas Constr - San Francisco 03
12/31/2012	219756	Don	Stockfisch	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Stockton
12/31/2012	222481	Michael	Zearbaugh	M&L and LS Sup.	Distribution, Supervisor-Nonexempt	M&C - M&L / Leak Survey - San Jose
12/31/2012	223670	Bobby	Huerta	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Dispatch RMC Fresno 01
12/31/2012	226010	Richard	Martinez	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C-Gas Corrosion & Regulation-Stockton

12/31/2012	226143	Jim	Thomas	Gas Compliance Supervisor, Stockton	Supervisor-Nonexempt, Gas Operations	M&C-M&L / LeakSurvey - Stockton
12/31/2012	232817	Glen	Robertson	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Auburn/Marysville
12/31/2012	235094	Rajpreet	Basuta	Supervisor, Distribution T&R	Distribution, Supervisor-Nonexempt	M&C Gas - CCR - San Jose/CC
12/31/2012	236189	Kevin	Souza	Distribution Superintendent	Distribution Superintendent	M&C Gas - CCR - Mission
12/31/2012	236357	Randy	Smith	Manager, Mtce & Constr Safety	Manager, Mtce & Constr Safety	Gas Operations - Safety
12/31/2012	236513	William	Pierce	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C Gas MI Gas M&L
12/31/2012	238433	Kevin	Souza	Superintendent, Distribution	Distribution Superintendent	M&C Gas - BAR - Diablo/North Bay
12/31/2012	238479	Kevin	Stevens	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C Gas - NR - Corrosion - Sierra
12/31/2012	238571	Patrick	Harding	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C Gas - NR - Corrosion - North Valley
12/31/2012	238608	Brenton	Trotter	Resource Supervisor - SI/NV	Work & Resource Scheduling,Supv-Nonxmpt	Resource - SI/NV
12/31/2012	238611	Branden	Gardella	Resource Supervisor - SJ/MI	Work & Resource Scheduling,Supv-Nonxmpt	Resource - SJ/MI
12/31/2012	238614	Thomas	Miele	Resource Supervisor - DI/NB	Work & Resource Scheduling,Supv-Nonxmpt	Resource - DI/NB
12/31/2012	238691	Alvaro	Valencia	Resource Supervisor - SA	Work & Resource Scheduling,Supv-Nonxmpt	Resource - SA
12/31/2012	240085	Kenny	Conolley	Resource Supervisor - SF/EB	Work & Resource Scheduling,Supv-Nonxmpt	Resource - SF/EB
12/31/2012	240428	Robert	Lynch	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C - Gas Distribution
12/31/2012	240603	Susan	Lugiewicz	Resource Supervisor - PN	Work & Resource Scheduling,Supv-Nonxmpt	Resource - PN
12/31/2012	240604	Mark	Higginbotham	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C - Gas Corrosion - Mission
12/31/2012	240711	John	Higgins	Director, M&C Gas Operations	Director	Gas Dist M&C Operations
12/31/2012	241047	John	Fiske	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Antioch
12/31/2012	241048	Ramon	Muller	Distribution Gas Supervisor	Distribution, Supervisor-Nonexempt	M&C Gas - BAR - Diablo/North Bay
12/31/2012	241464	Matthew	McLaughlin	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C Gas - CCR - San Jose/CC (1)
12/31/2012	242130	Peter	Kenny	Distribution Superintendent	Distribution Superintendent	M&C EL Dblo/EB Ex of 02
12/31/2012	242131	Dennis	Macaleese	Distribution Superintendent	Distribution Superintendent	M&C Gas BAR - East Bay
12/31/2012	242324	Kenny	Pollock	Superintendent M&C Sierra/North Valley	Distribution Superintendent	M&C Gas - NR - Sierra/North Valley
12/31/2012	242370	Jamie	Haas	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Marysville
12/31/2012	6361	Nicholas	Sauerwein	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	Gas Transmission - Gen. Construction 02
12/31/2012	18425	Rick	Bezanson	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Topock
12/31/2012	37129	John	Gillio	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Milpitas/Hollister
12/31/2012	46646	Robert	Currie	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Willows
12/31/2012	67365	Bradley	Spainhower	Superintendent, M&C Gas Trans Northern	Gas Maintenance, Superintendent	M&C Gas - Gas Transmission - Northern
12/31/2012	75164	Jody	Garcia	Superintendent, M&C Gas Trans Central	Gas Maintenance, Superintendent	M&C Gas - Gas Transmission - Central
12/31/2012	83473	Wayman	Pon	Manager, Gas System Operations	Manager, Gas Scheduling & Accounting	Station Operations
12/31/2012	84702	Curtis	Tonetti	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Burney
12/31/2012	86990	Monte	Penland	Gas Maintenance Supervisor	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Meridian
12/31/2012	87931	Michael	McFarling	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - McDonald Island
12/31/2012	89814	Danny	Lytle	Supervisor, Station Operations - Topock	Supervisor-Nonexempt, Gas Operations	Station Operations - Topock

12/31/2012	111502	Lance	Johnson	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Los Medanos
12/31/2012	116065	Robert	Alcantor	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	Gas Transmission - Gen. Construction 01
12/31/2012	223105	Harpreet	Johal	Supv, Station Operations - Los Medanos	Supervisor-Nonexempt, Gas Operations	Station Operations - Los Medanos
12/31/2012	225463	Jason	Klemm	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Rio Vista
12/31/2012	230478	Earl	Giffin	Supervisor, Station Operations - Hinkley	Supervisor-Nonexempt, Gas Operations	Station Operations - Hinkley
12/31/2012	234406	James	Johnson	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Tracy
12/31/2012	236248	Bruce	Riggs	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Kettleman
12/31/2012	237848	George	Beene	Superintendent, M&C Gas Trans Southern	Gas Maintenance, Superintendent	M&C Gas - Gas Transmission - Southern
12/31/2012	238207	Michael	Falk	Director, Transmission, Ops and Maint.	Director, Gas Operations	Operations and Maintenance
12/31/2012	240030	Kellen	Kirk	Supv, Station Ops - McDonald Island	Gas Mtce & Opns Lead, Supvr-Nonexempt	Station Operations - McDonald Island
12/31/2012	275475	David	Guertin	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Kettleman
12/31/2012	239113	Kevin	Knapp	Vice President, Gas Distribution	Vice President	Distribution M&C
12/31/2012	235728	Nickolas	Stavropoulos	Executive VP, Gas Operations	Executive Vice President	Executive VP, Gas Operations
12/31/2012	239971	Jesus	Soto	Senior VP, Gas Transmission Operations	Senior Vice President	Transmissions Operations
12/31/2012	55344	Manly	Johnson	VP, Gas Trans Maintenance & Const	Vice President	Transmission M&C

File Date	Personnel Number	First Name	Last Name	Position Title	Job Title	Organization Unit (Department)
12/31/2013	4705	Robert	Young	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services PN - Daly City
12/31/2013	5505	Ronald	Malone	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services CC - Salinas
12/31/2013	5531	Lacey	Richardson	Supervisor, Distribution Gas	Distribution, Supervisor-Nonexempt	M&C - Leak Survey - Sacramento
12/31/2013	6361	Nicholas	Sauerwein	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	Gas Transmission - Gen. Construction 02
12/31/2013	7578	Thomas	Santoro	Resource Supervisor - De Anza	Supervisor, Resource	Resource - De Anza
12/31/2013	17747	Jason	Tanihara	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - San Rafael/Vallejo/Napa
12/31/2013	18425	Rick	Bezanson	Superintendent, M&C Gas Trans Southern	Gas Maintenance, Superintendent	Operations and Maintenance
12/31/2013	21418	Daniel	Tucker	Gas & Electric Services Supervisor	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services EB - Richmond
12/31/2013	21578	Timothy	Arterberry	Distribution Superintendent	Distribution Superintendent	M&C Gas Bay Area - Leak Survey Proc Impr
12/31/2013	21601	Randy	Lavering	Manager, Field Services	Customer Services, Manager	Field Services Area 2
12/31/2013	22126	Tim	Bellinghausen	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - San Carlos
12/31/2013	25985	David	Bandoni	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Fresno
12/31/2013	26579	Steven	Burks	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - San Francisco 01
12/31/2013	26904	William	Tom	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs SF - SF 01
12/31/2013	27084	Jodie	Kubota	Director, Dist. M&C Gas, Central Coast	Director	M&C Gas - Central Coast Region
12/31/2013	27876	Ross	Lindblom	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services DI - Antioch
12/31/2013	29304	Gregory	Cobarrubias	Manager, Field Services	Customer Services, Manager	Field Services Area 5
12/31/2013	30253	Darryl	Williams	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R Corrosion - Sacramento
12/31/2013	30706	Jerry	Wiley	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Const - Fresno 2
12/31/2013	31671	Mark	Stefani	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services PN - San Carlos
12/31/2013	32152	Christopher	Quintana	Distribution Gas Supvr	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - San Rafael
12/31/2013	33422	David	Lane	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Fremont
12/31/2013	33639	Dean	Churchwell	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Hayward
12/31/2013	36499	Jeffery	Carroll	Manager, Performance and Compliance	Manager, Gas Operations	Performance & Compliance
12/31/2013	37242	Blaine	Cobb	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs FR - Fresno 01
12/31/2013	38126	Todd	Gibson	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs SA - Sac 03
12/31/2013	39099	David	Cuffman	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services NB - Vallejo
12/31/2013	39120	Steve	Urquidi	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C Gas CCR-CC
12/31/2013	40592	Miguel	Lopez	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Dispatch RMC Concord 02
12/31/2013	40969	Kenneth	Martin	Gas Distribution Supervisor	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Merced
12/31/2013	41541	Keith	Fisher	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Svcs SJ - Cinn 01
12/31/2013	41754	Gary	Krahmer	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Stockton
12/31/2013	43000	Robert	Reader	Supervisor - Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Redding/Chico

12/31/2013	43140	Edward	Rose	Manager, Field Services	Customer Services, Manager	Field Services Area 4
12/31/2013	43184	Donnie	Jue	Manager, Mtce & Constr Compliance	Manager, Gas Mtce & Constr Compliance	Gas Operations - Compliance
12/31/2013	43695	Joel	Dickson	Dir, Gas T&D Opns Compliance Pgms	Director, Gas T&D Opns Compliance Prgrms	Compliance Programs
12/31/2013	43748	Joseph	Ojeda	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Concord/Antioch
12/31/2013	44282	Michael	Raab	Distribution Superintendent	Distribution Superintendent	M&C Gas - Central Valley Region
12/31/2013	45514	Doug	Bounds	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Dispatch RMC Concord 03
12/31/2013	45532	Gordon	Fehlman	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Monterey
12/31/2013	45549	Brett	Jennings	Gas & Electric Services, Supvr-Nonexempt	Gas & Electric Services, Supvr-Nonexempt	Field Services Area 6
12/31/2013	47176	Lorene	Harden	Director, Dist. M&C Gas, North	Director	M&C Gas - Northern Region
12/31/2013	47493	Terrence	Williams	Manager, Field Services	Customer Services, Manager	Field Services Area 6
12/31/2013	48303	William	Tating	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - M&L - San Francisco
12/31/2013	49782	George	Fernandes	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services ST - Stockton
12/31/2013	51313	Alan	Dryden	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services KE - Bakersfield
12/31/2013	51490	William	Seib	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Oakport
12/31/2013	51581	Paul	Dymke	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services YO - Merced
12/31/2013	52701	Ismael	Martin	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Concord
12/31/2013	53000	Joann	Merrill	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C Corrosion Santa Rosa
12/31/2013	53028	Raymond	Hester	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Edenvale
12/31/2013	53182	Kevin	Carver	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs SA - Sac 02
12/31/2013	53484	Carlos	Martinez	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - San Francisco 01
12/31/2013	55349	Kevin	Salazar	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C Gas - CCR - San Jose/CC
12/31/2013	55455	Nancy	Arnautoff	Resource Supervisor - HU/SO	Supervisor, Resource	Resource - HU/SO
12/31/2013	55885	Mark	Milioto	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services SJ - Edenvale
12/31/2013	56119	Rodney	Williams	Director, Field Service South	Utility Operations, Director	Field Services South
12/31/2013	56213	William	Tiemeyer	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C Gas - Gas Transmission - Central
12/31/2013	56382	Erik	Kurtz	Supervisor, Distribution Gas Compliance	Distribution, Supervisor-Nonexempt	M&C - T&R Meas & Control - Sacramento 02
12/31/2013	57486	John	Corona	Superintendent, Distribution	Distribution Superintendent	M&C Gas BAR San Francisco
12/31/2013	57591	Jose	Delgado	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C Gas BAR - East Bay
12/31/2013	57923	Matthew	Moscato	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Santa Cruz
12/31/2013	60277	Bobbie	Weeck	Distribution Gas Supervisor	Distribution, Supervisor-Nonexempt	M&C - M&L/Leak Survey - Concord/Antioch
12/31/2013	60619	Ronda	De Rosa	Resource Supervisor - De Anza	Supervisor, Resource	Resource - De Anza
12/31/2013	60871	Augustine	Ledesma	Distribution Superintendent	Distribution Superintendent	M&C Gas - NR - Sacramento
12/31/2013	61884	Mark	Augustin	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Oakport
12/31/2013	62596	Jolene	Carver	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C - Locate & Mark- Sacramento

12/31/2013	62745	Xavier	De La Rocha	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services DA - Cupertino
12/31/2013	63205	Mark	Creech	Gas & Electric Services, Supvr-Nonexempt	Gas & Electric Services, Supvr-Nonexempt	Field Services South
12/31/2013	63215	Vincent	Martinez	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services SI - Roseville
12/31/2013	64830	Curtis	Meredith	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	Corrosion & Compliance
12/31/2013	64851	Anthony	Adams	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Bakersfield
12/31/2013	64901	Christopher	Nelson	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services NC - Eureka
12/31/2013	65043	Wyman	Ko	Night Supervisor, Gas & Electric Service	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs SF - SF 02
12/31/2013	66173	David	Durham	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Stockton East
12/31/2013	67365	Bradley	Spainhower	Superintendent, M&C Gas Trans Northern	Gas Maintenance, Superintendent	M&C Gas - Gas Transmission - Northern
12/31/2013	69932	Stephen	Niegel	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services NV - Redding
12/31/2013	70387	Joseph	Cummins	Resource Manager	Manager, Resource	Gas Distribution Resource South
12/31/2013	71346	Richard	Fuhrman	Manager, Field Services	Customer Services, Manager	Field Services South
12/31/2013	71379	Albert	Martinez	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C Gas - CVR - Fresno/Kern
12/31/2013	71389	William	Basham	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C - T&R Eureka
12/31/2013	72473	Robert	Ballew	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Willows
12/31/2013	73880	Grant	Kirk	Superintendent, Distribution	Distribution Superintendent	M&C Gas - CCR - Peninsula/DA
12/31/2013	73953	Gary	Smith	Manager, Field Services	Customer Services, Manager	Field Services Area 1
12/31/2013	74198	Dale	Mann	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Cinnabar
12/31/2013	74379	David	Garcia	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Chico
12/31/2013	74450	John	Martin	Distribution Superintendent	Distribution Superintendent	M&C Gas - CVR - Stockton/Yosemite
12/31/2013	75164	Jody	Garcia	Superintendent, M&C Gas Trans Central	Gas Maintenance, Superintendent	M&C Gas - Gas Transmission - Central
12/31/2013	76239	William	Wallace	Manager, Field Delivery	Emergency Response, Manager	Field Delivery
12/31/2013	76386	Randy	Uda	Manager, Field Services	Customer Services, Manager	Field Services Area 7
12/31/2013	79169	Dennis	Panoo	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Fresno
12/31/2013	79857	Karlene	Silva	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Santa Rosa
12/31/2013	80858	Kevin	Dunn	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C Gas - Leak Survey - East Bay
12/31/2013	81205	David	Acebo	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services NB - San Rafael
12/31/2013	81288	Elissa	Carroll	Senior Manager, Gas Distribution	Senior Manager, Gas Operations	Gas Distribution M&C
12/31/2013	81887	Christine	Sylvester	Resource Supervisor - Fresno/Kern	Supervisor, Resource	Resource - FR/KE
12/31/2013	81896	Mark	Horn	Gas Operations Compliance Supervisor	Supervisor-Exempt, Gas Operations	Field Service Compliance
12/31/2013	83102	Jimmy	Morales	Manager, Gas Operations	Manager, Gas Operations	Field Services North
12/31/2013	83159	Eric	Kropp	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Central Coast
12/31/2013	83344	Mark	Del Bono	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs SF - SF 03
12/31/2013	83473	Wayman	Pon	Manager, Gas System Operations	Manager, Gas Scheduling & Accounting	Station Operations

12/31/2013	83542	Steven	Lehr	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs SA - Sac 01
12/31/2013	83903	Fernando	Gonzalez	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services NC - Santa Rosa
12/31/2013	84149	Ross	Leverett	Director, Dist. M&C Gas, Central Valley	Utility Operations, Director	M&C Gas - Central Valley Region
12/31/2013	84316	Robert	Fitch	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Leak Survey - Santa Rosa
12/31/2013	84654	James	Welch	Resource Supervisor - Stockton	Supervisor, Resource	Resource - Stockton
12/31/2013	84702	Curtis	Tonetti	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Burney
12/31/2013	84767	Louie	Hinojosa	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Bakersfield
12/31/2013	85396	John	Redding	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Dispatch RMC Concord 01
12/31/2013	85397	Steve	Redding	Director, Dist. M&C Gas, Bay Area	Utility Operations, Director	M&C Gas - Bay Area Region
12/31/2013	86050	Frederick	Quinn	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services SA - Vacaville
12/31/2013	86990	Monte	Penland	Gas Maintenance Supervisor	Gas Maintenance, Supervisor-Nonexempt	M&C Gas - Gas Transmission - Northern
12/31/2013	87931	Michael	McFarling	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - McDonald Island
12/31/2013	88724	Shonda	Abercrombie	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Compliance - Bakersfield
12/31/2013	89083	Robert	Rinehart	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Antioch
12/31/2013	89088	Michael	Badet	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Peninsula
12/31/2013	89814	Danny	Lytle	Supervisor, Station Operations - Topock	Supervisor-Nonexempt, Gas Operations	Station Operations - Topock
12/31/2013	90514	James	Reeves	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Richmond
12/31/2013	90716	Rick	Muok	Gas & Electric Services, Supvr-Nonexempt	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services ST Stockton
12/31/2013	90771	Pheng	Ly	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C - Corrosion & Regulation - Fresno
12/31/2013	108665	Darrell	Feldman	Resource Manager	Manager, Resource	Gas Distribution Resource North
12/31/2013	108879	Christine	Hargreaves	Resource Supervisor - Yosemite	Supervisor, Resource	Resource - Yosemite
12/31/2013	108911	Jess	Soto	Gas & Electric Services Supervisor	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs FR - Fresno 02
12/31/2013	109833	Michael	Harner	Supervisor, Gas Dispatch Lead	Supervisor, Gas Dispatch Lead	Gas Dispatch Lead
12/31/2013	110039	Stephen	Redding	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services MI - Fremont
12/31/2013	110460	Jamie	Randolph	Distribution Superintendent	Distribution Superintendent	M&C Gas Bay Area - Leak Survey Proc Impr
12/31/2013	110637	Kelly	Ball	Superintendent, Distribution	Distribution Superintendent	M&C Gas - CCR - San Jose/CC
12/31/2013	110750	Mario	Martini	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Salinas
12/31/2013	110836	Joel	Hart	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs EB Oakport 01
12/31/2013	110843	Oscar	Garcia	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - San Jose
12/31/2013	111502	Lance	Johnson	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Los Medanos
12/31/2013	111650	Meghan	Murphy	Work & Resource Manager	Work & Resource, Manager	Distribution Coordinators and Schedulers
12/31/2013	111950	Dale	Roberts	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C Diablo Corrosion
12/31/2013	111952	Joseph	Barlow	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C North Bay Corrosion
12/31/2013	112026	Katherin	Mack	Systems Integrity Supervisor	Specialist, Supervisor-Exempt	Systems Integrity

12/31/2013	112260	William	Russo	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - San Francisco 02
12/31/2013	112588	Lynee	Patchell	Resource Supervisor - CC/DA	Supervisor, Resource	Resource - Central Coast
12/31/2013	113694	Tylan	Turner	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&D - Sacramento
12/31/2013	113715	William	Meredith	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&D - Vacaville
12/31/2013	113861	Scott	Farrell	Distribution Supervisor	Distribution, Supervisor-Nonexempt	M&C - M&L/Leak Survey - Sierra
12/31/2013	115062	Christine	Adams	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - M&L/Leak Survey - San Rafael
12/31/2013	115656	Felipe	Betancourt	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services YO - Modesto
12/31/2013	115846	Karlo	Alaura	Gas & Electric Services, Supvr-Nonexempt	Gas & Electric Services, Supvr-Nonexempt	Dispatch RMC
12/31/2013	115852	Richard	Yamaguchi	Director, Gas Dispatch & Scheduling	Director, Gas Dispatch & Scheduling	Gas Dispatch
12/31/2013	115861	Mark	Embree	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services DI - Concord
12/31/2013	116065	Robert	Alcantor	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Tracy
12/31/2013	116218	David	Ferguson	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Redding
12/31/2013	116256	Ron	Yamashita	Distribution Gas Supervisor	Distribution, Supervisor-Nonexempt	M&C - M&L/Leak Survey - Fresno
12/31/2013	116320	Steven	Golden	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services MI - Hayward
12/31/2013	116424	John	Kemp	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	Corrosion & Compliance - Cupertino
12/31/2013	116569	Richard	Taylor	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C Gas - M&L - East Bay
12/31/2013	116658	Michael	Bockrath	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C - Corrosion- San Francisco 02
12/31/2013	117055	Roderick	Mills	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Auburn
12/31/2013	119177	John	Camera	M&L and LS Sup.	Distribution, Supervisor-Nonexempt	M&C Gas Damage Prevention - Salinas
12/31/2013	219756	Don	Stockfisch	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Modesto
12/31/2013	222481	Michael	Zearbaugh	M&L and LS Sup.	Distribution, Supervisor-Nonexempt	M&C Gas Damage Prevention - San Jose
12/31/2013	223105	Harpreet	Johal	Supv, Station Operations - Los Medanos	Supervisor-Nonexempt, Gas Operations	Station Operations - Los Medanos
12/31/2013	224152	Timothy	Maclean	Manager, Mtce & Constr Safety	Manager, Gas Field Safety	Gas Operations - Safety
12/31/2013	225463	Jason	Klemm	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Rio Vista
12/31/2013	226010	Richard	Martinez	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C-Gas Corrosion & Regulation-Stockton
12/31/2013	226143	Jim	Thomas	Gas Compliance Supervisor, Stockton	Supervisor-Nonexempt, Gas Operations	M&C-M&L/LeakSurvey - Stockton
12/31/2013	227165	Amber	Bennett	Supervisor, Gas Dispatch Lead	Supervisor, Gas Dispatch Lead	Gas Dispatch Lead Supervisor
12/31/2013	230478	Earl	Giffin	Supervisor, Station Operations - Hinkley	Supervisor-Nonexempt, Gas Operations	Station Operations - Hinkley
12/31/2013	232817	Glen	Robertson	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - Auburn/Marysville
12/31/2013	234406	James	Johnson	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Milpitas/Hollister
12/31/2013	236189	Kevin	Souza	Distribution Superintendent	Distribution Superintendent	M&C Gas - CCR - Mission
12/31/2013	236248	Bruce	Riggs	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Kettleman
12/31/2013	236357	Randy	Smith	Supervisor, Gas Field Safety	Supervisor, Gas Field Safety	Gas Distribution - Safety
12/31/2013	236513	William	Pierce	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C Gas Damage Prevention - MI

12/31/2013	237846	Mike	Gregg	Resource Supervisor - North Valley	Supervisor, Resource	Resource - North Valley
12/31/2013	238207	Michael	Falk	Director, Gas Trans Ops and Maint	Director, Gas Operations	Operations and Maintenance
12/31/2013	238433	Kevin	Souza	Superintendent, Distribution	Distribution Superintendent	M&C Gas - BAR - Diablo/North Bay
12/31/2013	238479	Kevin	Stevens	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C Gas - NR - Corrosion - Sierra
12/31/2013	238571	Patrick	Harding	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C Gas - NR - Corrosion - North Valley
12/31/2013	238608	Brenton	Trotter	Resource Supervisor - SI/NV	Supervisor, Resource	Resource - Sierra
12/31/2013	238611	Branden	Gardella	Resource Supervisor - San Jose	Supervisor, Resource	Resource - San Jose
12/31/2013	238614	Thomas	Miele	Resource Supervisor - North Bay	Supervisor, Resource	Resource - NB
12/31/2013	238691	Alvaro	Valencia	Resource Supervisor - Sacramento	Supervisor, Resource	Resource - Sacramento
12/31/2013	238749	Doug	Wisman	Specialist, Supervisor-Exempt	Specialist, Supervisor-Exempt	Gas Emerg Preparedness Field Unit
12/31/2013	240030	Kellen	Kirk	Supv, Station Ops - McDonald Island	Gas Mtce & Opns Lead, Supvr-Nonexempt	Station Operations - McDonald Island
12/31/2013	240085	Kenny	Conolley	Resource Supervisor - Diablo	Supervisor, Resource	Resource - Diablo
12/31/2013	240428	Robert	Lynch	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C - Gas Distribution
12/31/2013	240603	Susan	Lugiewicz	Resource Supervisor - Peninsula	Supervisor, Resource	Resource - PN
12/31/2013	240604	Mark	Higginbotham	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C - Gas Corrosion - Mission
12/31/2013	240711	John	Higgins	Senior Director, Field Operations	Senior Director	Field Operations
12/31/2013	241048	Ramon	Muller	Distribution Gas Supervisor	Distribution, Supervisor-Nonexempt	M&C Area 7 Gas T&R - Vallejo
12/31/2013	241464	Matthew	McLaughlin	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C Gas - CCR - San Jose/CC (1)
12/31/2013	242131	Dennis	Macaleese	Distribution Superintendent	Distribution Superintendent	M&C Gas BAR - East Bay
12/31/2013	275283	Robert	Harter	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Marysville
12/31/2013	275341	Steven	Fischer	Director, Emergency Preparedness	Director	Emerg Preparedness & Public Awareness
12/31/2013	275466	Ruben	Torres	Resource Supervisor - San Francisco	Supervisor, Resource	Resource - San Francisco
12/31/2013	275475	David	Guertin	Supervisor, Gas Maintenance	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Hinkley
12/31/2013	276017	Ryan	Kooistra	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Napa
12/31/2013	276059	Vincent	Gaeto	Director, Field Service North	Utility Operations, Director	Field Services North
12/31/2013	276510	Carl	Appelbaum	Manager, Damage Prevention	Manager, Gas Operations	Damage Prevention
12/31/2013	276992	Todd	Rehrer	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C - T&R Meas & Control - Sacramento 02
12/31/2013	277526	Andrew	Wells	Supv-Exempt, Public Safety	Supervisor-Exempt, Public Safety	Public Safety
12/31/2013	277612	Brijesh	Sammy	Gas Maintenance Supervisor	Gas Maintenance, Supervisor-Nonexempt	Gas Transmission - Meridian
12/31/2013	278191	Salvatore	Dilillo	Superintendent, M&C Gas Fresno/Kern	Gas Maintenance, Superintendent	M&C Gas - CVR - Fresno/Kern
12/31/2013	278293	Michael	Lumm	Supvr-Nexmpt, Gas Corrosion & Regulation	Supvr-Nexmpt, Gas Corrosion & Regulation	M&C-Gas Corrosion & Regulation-Yosemite
12/31/2013	278379	Raymond	Hanley	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - T&R - DeAnza
12/31/2013	278984	Joe	Carlstrom	Manager, Field Services	Customer Services, Manager	Field Services
12/31/2013	279066	Christen	Brown	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C - Gas Constr - Livermore

12/31/2013	279180	Robert	Walsh	Manager, Field Services	Customer Services, Manager	Field Services Area 3
12/31/2013	279237	James	Harris	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Fld Svcs EB Oakport 02
12/31/2013	279513	Marie	Silva	Manager, Gas Dispatch	Manager, Gas Dispatch	Gas Dispatch Manager
12/31/2013	279577	Brandon	Crifasi	Resource Supervisor - East Bay	Supervisor, Resource	Resource - East Bay
12/31/2013	280210	Franco	Massari	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C Gas Damage Prevention - San Carlos
12/31/2013	280334	Mark	Arnold	Resource Supervisor - Mission	Supervisor, Resource	Resource - Mission
12/31/2013	280456	Don	Smith	Superintendent M&C Gas Humboldt/Sonoma	Distribution Superintendent	M&C Gas - NR - Sonoma/Humboldt
12/31/2013	280551	Hugh	Marshall	Distribution, Supervisor-Nonexempt	Distribution, Supervisor-Nonexempt	M&C - T&D - Sacramento 02
12/31/2013	280588	Robert	Beltran	Gas & Electric Services, Supvr-Nonexempt	Gas & Electric Services, Supvr-Nonexempt	Field Services Area 5
12/31/2013	280633	Ryan	Harbick	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Svcs SJ - Cinn 02
12/31/2013	280660	Kenneth	Kirschmann	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Gas Field Services CC - Santa Cruz
12/31/2013	281219	Jason	Decosta	M&L and LS Sup.	Distribution, Supervisor-Nonexempt	M&C Gas Damage Prevention - San Jose
12/31/2013	281541	Morris	White	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	M&C Gas BAR San Francisco
12/31/2013	281558	Sandra	Stultz	Supervisor, Gas & Electric Services	Gas & Electric Services, Supvr-Nonexempt	Dispatch RMC Concord 04
12/31/2013	239113	Kevin	Knapp	VP, Gas T&D Operations	Vice President	Gas T&D Operations
12/31/2013	239971	Jesus	Soto	Senior VP, Engr, Opers & Construction	Senior Vice President	Engineering, Construction, & Operations
12/31/2013	235728	Nickolas	Stavropoulos	Executive VP, Gas Operations	Executive Vice President	Executive VP, Gas Operations

File Date	Personnel Number	First Name	Last Name	Position Title	Job Title	Organization Unit (Department)
12/31/2014	43695	Joel	Dickson	Director, T&D Ops Compliance	Dir, Gas Transmission & Distribution	Compliance Programs
12/31/2014	36499	Jeffery	Carroll	Superintendent, Gas T&D Locate and Mark	Manager, Gas Transmission & Distribution	Locate and Mark
12/31/2014	60277	Bobbie	Weeck	Supervisor, Gas T&D Locate and Mark	Supvr, Gas Transmission & Distribution	Locate & Mark Diablo-Mission
12/31/2014	62596	Jolene	Carver	Supervisor, Gas T&D Locate and Mark	Supvr, Gas Transmission & Distribution	Locate & Mark Sacramento
12/31/2014	112026	Katherin	Mack	Systems Integrity Supervisor	Specialist, Supervisor-Exempt	Systems Integrity
12/31/2014	116256	Ron	Yamashita	Supervisor, Gas T&D Locate and Mark	Supvr, Gas Transmission & Distribution	Locate & Mark Fresno-Kern
12/31/2014	119177	John	Camera	Supervisor, Gas T&D Locate and Mark	Supvr, Gas Transmission & Distribution	Locate & Mark Central Coast-Los Padres
12/31/2014	241057	Sarbjit	Bagri	Supervisor, Gas T&D Locate and Mark	Supvr, Gas Transmission & Distribution	Locate & Mark Stockton-Yosemite
12/31/2014	280210	Franco	Massari	Supervisor, Gas T&D Locate and Mark	Supvr, Gas Transmission & Distribution	Locate & Mark East Bay-North Bay
12/31/2014	283950	Jason	Gambill	Supervisor, Gas T&D Locate and Mark	Supvr, Gas Transmission & Distribution	Locate & Mark North Valley-Sierra
12/31/2014	284443	Shawn	Oliviera	Supervisor, Gas T&D Locate and Mark	Supvr, Gas Transmission & Distribution	Locate and Mark - San Jose
12/31/2014	284838	Scott	Murphy	Supervisor, Gas T&D Locate and Mark	Supvr, Gas Transmission & Distribution	Locate & Mark San Francisco
12/31/2014	285953	Donald	Humphrey	Supervisor, Gas T&D Locate and Mark	Supvr, Gas Transmission & Distribution	Locate & Mark Sonoma - Humboldt
12/31/2014	290222	Jeffrey	Catlin	Supervisor, Distribution	Distribution, Supervisor-Nonexempt	Locate & Mark Peninsula
12/31/2014	239113	Kevin	Knapp	VP, Gas T&D Operations	Vice President	Gas T&D Operations
12/31/2014	239971	Jesus	Soto	Senior VP, Engr, Ops & Construction	Senior Vice President	Engineering, Construction, & Operations
12/31/2014	235728	Nickolas	Stavropoulos	Executive VP, Gas Operations	Executive Vice President	Executive VP, Gas Operations

File Date	Employee Number	Employee First Name	Employee Last Name Suffix	Job Title	Position Title	Organization Unit (Department)
12/31/2015	43695	Joel	Dickson	Dir, Gas Transmission & Distribution	Director, T&D Ops Compliance	Compliance Programs
12/31/2015	36499	Jeffery	Carroll	Manager, Gas Transmission & Distribution	Superintendent, Gas T&D Locate and Mark	Locate and Mark
12/31/2015	60277	Bobbie	Weeck	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Diablo
12/31/2015	62596	Jolene	Carver	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Sacramento
12/31/2015	111977	Nalini	Webster	Supervisor-Exempt, Gas Clearance	Supervisor-Exempt, Damage Claims	Damage Claims
12/31/2015	112026	Katherin	Mack	Distribution Superintendent	Distribution Superintendent - Locate and	Locate and Mark - South
12/31/2015	116256	Ron	Yamashita	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Fresno
12/31/2015	234578	Mitchell	Smith	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Yosemite
12/31/2015	280210	Franco	Massari	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark North Bay
12/31/2015	283950	Jason	Gambill	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark North Valley-Sierra
12/31/2015	284023	Jorge	Gil-Blanco	Supervisor-Exempt, Gas Clearance	Supervisor-Exempt, Investigations	DiRT Investigations
12/31/2015	284838	Scott	Murphy	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark San Francisco
12/31/2015	285953	Donald	Humphrey III	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Sonoma - Humboldt
12/31/2015	292310	Daniel	Greathouse	Supervisor, Gas Locate and Mark	Supervisor, Gas T&D Locate and Mark	Locate & Mark Peninsula
12/31/2015	292770	Tamara	McCallan	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Stockton
12/31/2015	294834	Mike	DeJarnette	Distribution, Supervisor-Nonexempt	Supervisor, Distribution	Locate & Mark Kern
12/31/2015	295994	Robert	Bush	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Central Coast-Los Padres
12/31/2015	299206	James	Huston	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark San Jose
12/31/2015	239971	Jesus	Soto Jr.	Senior Vice President	Sr. VP, Gas Operations	Engineering, Construction, & Operations
12/31/2015	235728	Nickolas	Stavropoulos	President, PG&E Utility	President, Gas	President, Gas Operations
12/31/2015	240711	John	Higgins	Vice President	VP, Gas T&D Operations	Gas T&D Operations

File Date	Employee Number	Employee First Name	Employee Last Name	Job Title	Position Title	Organization Unit (Department)
12/31/2016	43695	Joel	Dickson	Dir, Gas Transmission & Distribution	Director, T&D Ops Compliance	Compliance Programs
12/31/2016	36499	Jeffery	Carroll	Manager, Gas Transmission & Distribution	Superintendent, Gas T&D Locate and Mark	Locate and Mark
12/31/2016	60277	Bobbie	Weeck	Specialist, Supervisor-Exempt	Systems Integrity Supervisor	Systems Integrity
12/31/2016	62596	Jolene	Carver	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Sacramento
12/31/2016	88724	Shonda	Abercrombie	Manager, Gas Transmission & Distribution	Superintendent, Locate and Mark - South	Locate & Mark - South
12/31/2016	116256	Ron	Yamashita	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Fresno
12/31/2016	234578	Mitchell	Smith	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Yosemite
12/31/2016	283950	Jason	Gambill	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark North Valley-Sierra
12/31/2016	284838	Scott	Murphy	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark San Francisco
12/31/2016	285953	Donald	Humphrey III	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Eastbay
12/31/2016	292310	Daniel	Greathouse	Supvr, Gas Transmission & Distribution	Supervisor, Gas Transmission & Dist.	Locate & Mark Peninsula
12/31/2016	292770	Tamara	McCallan	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Stockton
12/31/2016	294834	Mike	DeJarnette	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Kern
12/31/2016	295994	Robert	Bush	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Central Coast-Los Padres
12/31/2016	299206	James	Huston	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark San Jose
12/31/2016	299930	Johnny	Soto	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Mission
12/31/2016	299995	Frank	Narte	Supvr, Gas Transmission & Distribution	Supervisor, Gas Transmission & Dist.	Locate & Mark DeAnza
12/31/2016	301810	Adam	Mayfield	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark North Bay
12/31/2016	303951	Sean	Marton	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Diablo
12/31/2016	239971	Jesus	Soto Jr.	Senior Vice President	Sr. VP, Gas Operations	Engineering, Construction, & Operations
12/31/2016	235728	Nickolas	Stavropoulos	President, PG&E Utility	President, Gas	President, Gas
12/31/2016	240711	John	Higgins	Vice President	VP, Gas T&D Operations	Gas T&D Operations

File Date	Employee Number	Employee First Name	Employee Last Name	Job Title	Position Title	Organization Unit (Department)
12/31/2017	64901	Christopher	Nelson	Supv, Gas Field Svcs and Locate & Mark	Supervisor, Gas Field Services	Field Services L&M Humboldt-Eureka/Ukiah
12/31/2017	116256	Ron	Yamashita	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Fresno
12/31/2017	238089	Joseph	Sawyer	Supv, Gas Field Svcs and Locate & Mark	Supervisor, Gas Field Services	Field Services L&M North Valley - North
12/31/2017	284838	Scott	Murphy	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark San Francisco
12/31/2017	292770	Tamara	McCallan	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Stockton
12/31/2017	295994	Robert	Bush	Supvr, Gas Ops Field Ldr Development	Supervisor, FS and L&M	Gas Field Services CC - Salinas
12/31/2017	299206	James	Huston	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark - Sacramento
12/31/2017	299930	Johnny	Soto	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Mission
12/31/2017	299995	Frank	Narte	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate & Mark	Locate & Mark DeAnza
12/31/2017	301810	Adam	Mayfield	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark North Bay
12/31/2017	309197	Joshua	Riffle	Supvr, Gas Transmission & Distribution	Supervisor, Gas T&D Locate and Mark	Locate & Mark Sonoma
12/31/2017	37242	Blaine	Cobb	Mgr, Gas Field Svcs and Locate & Mark	Manager, Gas Field Services	Field Services- Fresno/Kern
12/31/2017	44248	Rene	Chaidez	Mgr, Gas Field Svcs and Locate & Mark	Manager, Gas Field Services	Field Services- Fresno/Kern
12/31/2017	44282	Michael	Raab	Mgr, Gas Field Svcs and Locate & Mark	Manager, Gas Field Services	Stockton/Yosemite
12/31/2017	76386	Randy	Uda	Mgr, Gas Field Svcs and Locate & Mark	Manager, Gas Field Services	Field Services - Sacramento/Sierra
12/31/2017	223836	Aaron	Coates	Mgr, Gas Field Svcs and Locate & Mark	Manager, Gas Field Services	Field Services- Mission/San Jose/De Anza
12/31/2017	226911	Matthew	Ramirez	Mgr, Gas Field Svcs and Locate & Mark	Manager, Gas Field Services	Field Services - San Francisco/North Bay
12/31/2017	279180	Robert	Walsh II	Mgr, Gas Field Svcs and Locate & Mark	Field Services South,Mgr	Gas Field Svcs / Locate & Mark South
12/31/2017	283949	Elizabeth	Greathouse	Mgr, Gas Field Svcs and Locate & Mark	Manager, Gas Field Services	Field Services - Diablo/East Bay
12/31/2017	285953	Donald	Humphrey III	Mgr, Gas Field Svcs and Locate & Mark	Manager, Gas Field Services	Field Services - NV/Humboldt/Sonoma
12/31/2017	292310	Daniel	Greathouse	Mgr, Gas Field Svcs and Locate & Mark	Manager, Gas Field Services	Field Services- Peninsula/Central Coast
12/31/2017	110008	Michele	Dionne	Dir, Gas Field Svcs and Locate & Mark	Dir, Gas Field Svcs / Locate & Mark N	Gas Field Svcs / Locate & Mark North
12/31/2017	236032	Melvin	Christopher	Vice President	VP, Gas T&D Operations	Gas T&D Operations
12/31/2017	239971	Jesus	Soto Jr.	Senior Vice President	Sr. VP, Gas Operations	Gas Operations
12/31/2017	235728	Nickolas	Stavropoulos	President & COO	President and COO	Office of President and COO

EXHIBIT 63



Dig-in Investigation

Procedure



Summary

This procedure provides instructions for supervisors or designees to perform a dig-in investigation when mismarks or no marks are suspected. A dig-in investigation immediately follows an incident caused by an excavator, including Pacific Gas and Electric Company (PG&E or Company), digging into PG&E underground facilities.



Target Audience

Company personnel performing dig-in investigations, including:

- * Locate and mark personnel and supervisors
- * Dig-in reduction team (DiRT) members
- * Maintenance and construction (M&C) personnel and supervisors



Before You Start

- * Read the Safety section of this handbook.
- * Wear the appropriate personal protective equipment (PPE) in accordance with the Code of Safe Practices (CSP) and the [PPE Matrix](#) for the specific tasks and work area.



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Dig-in Investigator Roles and Responsibilities

1. Locate and mark dig-in investigator responsibilities include the following:
 - A. Secure and preserve evidence. Evidence may include audio or visual recordings, damaged facilities, records, or any other item that can provide information on the nature of the incident.
 - B. Obtain factual information on the incident. Document facts. Do not speculate or make judgments.
 - C. Document all evidence and findings in the following:
 - * Form TD-5811P-501-F01, “Dig-In Investigation Questionnaire”
 - * Form TD-5811-401-F01, “Gas Dig-In First Responder Form”
 - D. Provide DiRT investigators with Gas Dig-in First Responder form information to record investigation on Form TD-5805B-001-F01, “Dig-in Reduction Team (DiRT) Investigation.”
 - E. Determine if incident is billable or non-billable.

2

Preparing for the Investigation

1. Before leaving for the dig-in site, complete the following:
- A. IF an Underground Service Alert (USA) ticket for the location of the dig-in is available,

THEN print the following:

▪ All versions of the USA ticket.

▪ Locate and mark photos (if available).

B. Obtain a plat map of the dig-in site.

C. Collect contact numbers for locator(s).

D. Stock vehicle with items necessary to perform a dig-in investigation. See Table 1, "Dig-in Investigation Checklist."

Table 1. Dig-in Investigation Checklist

FORMS AND RECORDS	
<div><div>▪ Form TD-4110P-03-F01, "Leak Repair, Inspection, and Gas Quarterly Incident Report (A-Form)"</div><div>▪ Form TD-4110P-03-F02 "Gas Incident Report Addendum (Form A-1)"</div><div>▪ Form TD-5811P-501-F01 "Dig-In Investigation Questionnaire"</div></div>	<div><div>▪ Form TD-5811P-501-F02, "Notice of Unsafe Excavation."</div><div>▪ Record of Evidence Law – Third Party Claims (62-6406)</div><div>▪ Located online via PGE@Work > Organizations > Law > Law-Claims > Litigation and Claims > Forms.</div></div>
EQUIPMENT AND TOOLS	
<div><div>▪ Broom</div><div>▪ Camera</div><div>▪ Cones</div><div>▪ Cell phone and charger</div><div>▪ Electronic device (laptop or tablet with access to Quick Maps and IRTHnet)</div></div>	<div><div>▪ HIT kit (if available)</div><div>▪ Notepad and pen</div><div>▪ Personal Protective Equipment (PPE)</div><div>▪ Video camera (if available)</div></div>
REFERENCES	
<div><div>▪ <i>USA North's California Excavation Manual</i></div></div>	<div><div>▪ <i>Locate and Mark Handbook</i></div></div>

3

Understanding Reportable Requirements

The California Public Utilities Commission (CPUC) and Department of Transportation (DOT) reportable requirements for an incident include any of the following criteria:

- * Death or personal injury necessitating overnight hospitalization.
- * Property damage greater than \$50,000, including labor costs (excluding gas lost).
- * Unintentional release of 3 million cubic feet (MMCF) or more of gas. For example, a 2 in. pipe operating at 60 pounds per square inch gauge (psig) blowing for 4 hours will release 3 MMCF of gas.

For information on other pipe sizes and operating pressure, see [Procedure TD-4413P-01, "Procedure for Reportable Gas Incidents,"](#) located online in the Technical Information Library (TIL).

- * All explosions.
- * Fires involving Company facilities (up to and including the meter set) and the release of gas.
- * Over-pressurizations.
- * Loss of large customers.
- * Loss of large facilities (e.g. compressor stations).
- * Loss of a large number of customers.
- * Events that have attracted either public attention or coverage by major news media.
- * An Event that results in:
 - An emergency shutdown of a liquefied natural gas (LNG) facility.
 - Other consequences deemed as a 'significant event' per [Procedure TD-4413P-01, "Procedure for Reportable Gas Incidents."](#)
- * IF no other criteria are met beside major media on scene,
THEN the incident is reportable only to the CPUC.

Reportable timeframe:

- * **For CPUC:** Report within 2 hours (during working hours) OR 4 hours (during non-working hours) after PG&E gas employees are aware of the incident and have arrived on the scene.

- * **For DOT:** Report within 3 hours (during working hours) OR 5 hours (during non-working hours) after PG&E gas employees are aware of the incident and have arrived on the scene.

For additional information on CPUC and DOT requirements, see [Standard TD-4413S, "Gas Event Reporting Requirements,"](#) located online in the TIL.

4

Arriving at the Dig-in Site

1. Meet with Employee-In-Charge (EIC) to obtain additional information about the dig-in.
2. Ensure that the EIC has relayed any reportable information to:
 - * Dispatch OR gas control
 - * Law-Claims

For details about Law-Claims reportable requirements, see [Procedure TD-5811P-401, "Dig-in First Responder."](#)



3. IF new markings are needed to repair damage,
THEN an Operator Qualified person does the following:
 - A. Ensure ONLY white paint is used for marking.
 - B. DO NOT cover any existing markings.

5

Capturing Visual Evidence




1. Set current date AND time on camera.
2. Turn **camera time stamp feature** ON so that date AND time are stamped on each photo.
3. Use HIT kit for photos (if available).
4. Take photos (and record video if possible):
 - * From 360° of dig-in site.
 - * From the same position as the pre-dig-in photos (if possible).
See [Figure 1, "Example Photos of Before and After Dig-in."](#)

Figure 1. Example Photos of Before and After Dig-in

	<p>Example 1 shows:</p> <ul style="list-style-type: none">▪ Pre-excavated area was marked to identify 2 in. plastic gas main.▪ Reference points: fence, utility pole, tree, bushes.
	<p>Example 2 shows:</p> <ul style="list-style-type: none">▪ The same position as the pre-dig-in photo.▪ Reference points: fence, utility pole, bushes.

- * Clearly capture the following as shown in [Figure 2, “Examples of Dig-in Photos”](#):
- Damage area.
 - All visible markings and marking tools (flags, whiskers, stakes or das™ markers).
 - Measured distance between PG&E marks and damage area.
 - Beginning and end of delineated work areas.
 - Reference points (street signs, address, permanent landscaping, etc.).
 - All vehicles, equipment, and tools at dig-in site.
 - Any daylighted AND/OR potholed facilities.
 - Transmission pipeline markers.
 - Other utility facility markings.

Figure 2. Examples of Dig-in Photos

	<p>Example 1 shows damage area with existing facility marks.</p>
	<p>Example 2 shows damage area with HIT kit.</p>
	<p>Example 3 shows:</p> <ul style="list-style-type: none">▪ Measured distance between facility marks and damage area.▪ Dig-in location with HIT kit indicating that damage is 18 in. horizontal from original locating marks.

-
5. Sketch the dig-in on Form TD-5811P-501-F01 “Dig-In Investigation Questionnaire.” Include the following in the sketch:
 - A. General map of dig-in (include street names, cross street, etc.)
 - B. Measurement of distances from cross street, landmark, or property line.
 - C. General excavation equipment location.
-

6

Meeting with the Excavator

1. Prepare to document all findings on Form TD-5811P-501-F01, “Dig-In Investigation Questionnaire.”
2. Find the excavator’s site crew lead or person in charge of the excavation.
3. Introduce yourself as a PG&E employee. Avoid making any judgmental comments or preconceived decisions about the event.
4. Explain your role in the investigation.
5. Ask for:
 - * Excavator’s business card
 - * Excavator’s role in the project being performed (e.g., supervisor, foreman, operator, etc.)
 - 1) IF a business card is not available OR excavator refuses to provide information,

THEN document the following:
 - Name of excavator
 - Phone numbers
 - Contractor license number
 - Other contact information

6. IF work was performed WITHOUT valid USA ticket,

THEN complete the following:
 - * Educate excavator about calling USA at 811 before digging.
 - * Explain how this incident could have been prevented by having a valid USA ticket.
 - * Issue a **Form TD-5811P-501-F02, “Notice of Unsafe Excavation.”**
7. IF work was performed WITH a valid USA ticket,

THEN use **Form TD-5811P-501-F01 “Dig-In Investigation Questionnaire,”** to ask excavator questions and document answers.
8. Request a follow-up meeting to discuss findings (if needed).
9. IF excavator is unresponsive or uncooperative,

THEN complete the following:
 - A. Look around the area for excavator company information, such as company logo, information on vehicles and equipment, contractor license number.
 - B. Take photos of vehicles and equipment.
 - C. Immediately notify your supervisor of the situation.

7 Investigating Damaged Area

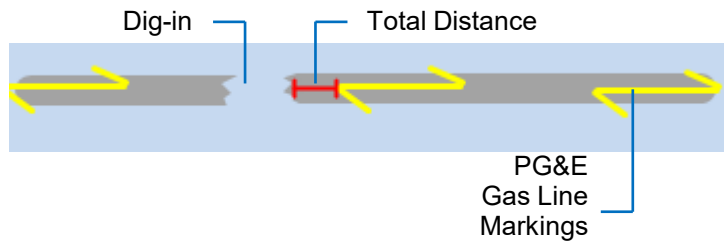
1. Use the information collected to investigate damage area.
2. Document additional findings in the **Notes** section of the **Form TD-5811P-501-F01, “Dig-In Investigation Questionnaire.”**
3. Verify the following:
 - A. On site excavator (company or individual) matches name of excavator on USA ticket.
 - B. Dig-in occurs between ticket start date and expiration date.
 - C. Date and time locate and mark was completed (if applicable)
 - D. Work performed matches **Nature of Work** on ticket.

- E. Work site location and delineation match descriptions on ticket, AND photos attached to USA ticket.
 - F. IF remark was requested,

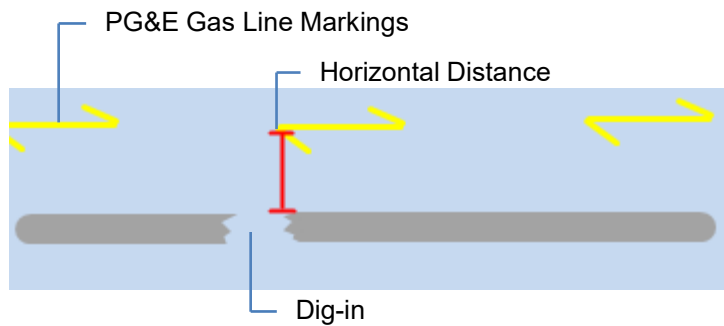
THEN verify the following:
 - 1) PG&E was required to remark.
 - 2) Date AND time of documentation for remark.
 - G. IF remark was NOT requested,

THEN verify that marks are still maintained by excavator (as required by [California Government Code \[CGC\] 4216 law](#)).
 - H. Temporary patches over facilities. This indicates daylighting or potholing were performed.
 - 1) IF daylighting or potholing has not been backfilled,

THEN verify the following:
 - a. PG&E facility is exposed.
 - b. Warning tape over facility.
 - c. Sand around facility.
- 4. Verify that a standby was scheduled for critical or high priority facilities.
 - 5. Perform delineation area investigation:
 - * Verify that proper color was used to delineate.
 - * Verify that delineations have not been altered or extended.
 - 6. Check facility marking:
 - * Verify that correct abbreviations were used to indicate the type of pipe and size.
 - * Verify mark location accuracy. Marks are required to be within 24 in. of outer edge of facility.
 - * Measure the total distance from the dig-in to the closest PG&E marking as shown in [Figure 3, "Total Distance."](#)

Figure 3. Total Distance

7. Measure the horizontal distance between PG&E markings and the outer edge of facility as shown in Figure 4, "Horizontal Distance."

Figure 4. Horizontal Distance

8. IF no visible markings are found in the work area,
THEN perform the following:
- A. Compare site to original pictures in USA ticket.
 - B. Look for markings under vehicles or equipment.
 - C. Look for original delineations.
 - D. Sweep area to expose markings (if necessary).
 - E. Check for signs of marking removal:
 - 1) Wet surfaces
 - 2) Black paint on surfaces

-
- 3) Evidence left by cleaning equipment (e.g. street sweeper, pressure washer, etc.)
 - 4) Removal of asphalt, soil, concrete, etc. For example, area was completely excavated.
 - 5) Area backfilled with new soil, concrete, asphalt, etc.
 - 6) Discontinuation of markings in a continuous path.
9. Collect damaged pipe(s) (if applicable):
- A. See [Standard TD-4711S, “Natural Gas Pipe Wrap and Flange Gaskets – Removal, Handling and Disposal,”](#) for guidance and requirements before removing or transporting pipe wrap.
 - B. See [Procedure TD-4100P-14, “Removing, Documenting and Preserving Gas Transmission Pipe and Components,”](#) for guidance before removing or transporting transmission facilities affected by a dig-in.
 - C. Fill out the [Record of Evidence Law – Third Party Claims \(62-6406\)](#).
10. Perform the following (if needed):
- A. Meet with the locator(s):
 - 1) Use [Form TD-5811P-501-F01, “Dig-In Investigation Questionnaire,”](#) to ask locator(s) questions and document answers.
 - 2) Ask locators to reproduce markings by:
 - a. Using the same locating instrument.
 - b. Recreate steps to complete markings using original connection points.
 - c. Verify that the locator checks and documents post dig-in instrument calibration. See [Procedure TD-5811P-205, “Verifying Instrument Calibration.”](#)

- B. Meet with the following individuals, ask questions, AND document answers on Form TD-5811P-501-F01, “Dig-In Investigation Questionnaire”:

- First responder
- Field meet attendants
- Standby personnel

8**Performing Additional Investigative Work**

1. Download photos from camera to a computer.
2. Name the file of each photo with the following information:
 - * Photographer LAN ID
 - * Date AND military time stamped on each photo.

Examples of photo filename:

LANID_YYYYMMDD_HH_MI.jpg

SSBA_20131010_16_03.jpg

3. Search IRTNet for:
 - * Additional information attached to other USA tickets for the same address or nearby work location. Look for photos, notes, and field meets.
 - * Previous dig-in by excavator.
4. Identify if excavator is on the **Repeat Offender List** (if available).

9**Analyzing the Evidence**

1. Contact M&C supervisor to obtain:
 - * Completed Form TD-4110P-03-F01, “Leak Repair, Inspection, and Gas Quarterly Incident Report (A-Form).”
 - * Completed Form TD-5811-401-F01, “Gas Dig-In First Responder Form.”
 - * Form TD-4110P-03-F02, “Gas Incident Report Addendum (Form A-1)”

- 2. Review [Form TD-5811P-501-F01, “Dig-In Investigation Questionnaire.”](#)
- 3. Document findings by completing [Form TD-4110P-03-F02, “Gas Incident Report Addendum \(Form A-1\)”](#)

For instructions to fill out the form, review [Job Aid TD-5811P-501-JA01, “Completing a Gas Incident Report Addendum \(Form A-1\).”](#)

- 4. Determine whether damage is billable or non-billable per [Table 3, “Examples of Billable Damages,”](#) and [Table 4, “Examples of Non-Billable Damages.”](#)

Table 3. Examples of Billable Damages

EXAMPLES OF BILLABLE DAMAGES	
<ul style="list-style-type: none">▪ Excavating before marking is applied▪ Failed to daylight when required area▪ Failed to hand dig when required▪ Invalid or expired USA ticket	<ul style="list-style-type: none">▪ No USA Ticket▪ Operating heavy equipment over facility▪ Work is outside of delineation▪ Working under an another excavator’s USA ticket

- A. IF damage is billable,

THEN follow up with excavator to:
 - 1) Discuss signs of violation (e.g., whether the excavator has maintained tolerances [vertical and horizontal]).
 - 2) Review any discrepancies between the information provided by excavator in previous meeting and findings from investigation.
 - 3) Issue [Form TD-5811P-501-F02, “Notice of Unsafe Excavation,”](#) (as needed).
 - 4) Provide excavator a copy of [USA North’s California Excavation Manual](#)

Table 4. Examples of Non-Billable Damages

EXAMPLES OF NON-BILLABLE DAMAGES	
<ul style="list-style-type: none">▪ Facility was mismarked▪ Locating discrepancy (incorrect/incomplete marking)	<ul style="list-style-type: none">▪ Instrument failure▪ Unmapped or a map discrepancy exists

B. IF damage is non-billable,

THEN enter the dig-in incident as an event into the Gas Operations Corrective Action Program (CAP).
Contact CAP for assistance.

10

Submitting Evidence

1. Submit the following evidence to local M&C clerk:
 - * Damaged pipe(s), tagged with chain of custody. Refer to Form 62-1174, “Chain of Custody Record.”
 - * Record of Evidence Law – Third Party Claims (62-6406)
 - * All photos
 - * Completed Form TD-4110P-03-F01, “Leak Repair, Inspection, and Gas Quarterly Incident Report (A-Form)” and Form TD-4110P-03-F02, “Gas Incident Report Addendum (Form A-1)”
 - * Form TD-5811-401-F01, “Gas Dig-In First Responder Form”
 - * Copy USA ticket(s)
 - * All notes taken for the investigation
 - * Form TD-5811P-501-F01, “Dig-In Investigation Questionnaire”

11

Document Retention

1. Maintain data information records in accordance with Standard TD-4016S, “Gas Operations Records and Information Management.”
2. Retain records per the record retention schedule.

END OF PROCEDURE



Definitions

Critical Facility: Any gas transmission facility with pressure above 60 psig and any electric facility operating at or above 60 kilovolt (kV).

The following facilities may also be critical facilities:

- * Facilities identified as critical by the local operating area.
- * Facilities which, if damaged, are likely to result in difficulty controlling the gas flow due to their size, material properties, operating pressure, or location, as well as the personnel and equipment available.
- * Electric distribution facilities which, if damaged, are likely to result in outages of long duration or outages to critical customers.

Daylighting: Exposing a facility around its entire circumference, where location, depth and orientation are visible.

High-priority facilities: Any of the following facilities (see [California Government Code §4216\[e\]](#)):

- * High-pressure natural gas pipelines with normal operating pressures greater than 415 kilopascal (kPa) gauge (60 psig).
- * Petroleum pipelines.
- * Pressurized sewage pipelines.
- * High-voltage electric supply lines, conductors, or cables that have a potential to ground of greater than or equal to 60 kV.
- * Hazardous materials pipelines that are potentially hazardous to workers or the public if damaged.

Potholing: Creating small excavations for the purpose of visually confirming a facility location.

Significant Event: For reporting purposes, a “significant event” is left to the judgment of the Company personnel involved with and knowledgeable of the details of the event. Must involve Company facilities and the release of natural gas. See [Procedure TD-4413P-01, “Procedure for Reportable Gas Incidents,”](#)



Supplemental References

[TD-4413B-001, "Changes to the Gas Incident Reporting Requirements"](#)

[TD-4413P-01, "Procedure for Reportable Gas Incidents"](#)

[TD-5811P-101-JA02, "Using IRTNet for Locating USA Tickets"](#)

[TD-5811P-501-JA01, "Completing a Gas Incident Report Addendum \(Form A-1\)"](#)