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

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|---|---|
| Order Instituting Rulemaking on the Commission's Own Motion to Adopt New Safety and Reliability Regulations for Natural Gas Transmission and Distribution Pipelines and Related Ratemaking Mechanisms. | Rulemaking 11-02-019<br>(Filed February 24, 2011) |

# PACIFIC GAS AND ELECTRIC COMPANY'S PIPELINE SAFETY ENHANCEMENT PLAN (PSEP) COMPLIANCE REPORT


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Dated: April 30, 2014

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**PACIFIC GAS AND ELECTRIC COMPANY'S
PIPELINE SAFETY ENHANCEMENT PLAN (PSEP)
COMPLIANCE REPORT**

# I. INTRODUCTION

Pursuant to Ordering Paragraph 10 of Decision 12-12-030, attached is PG&E's PSEP Quarterly Compliance Report, for the reporting period January 1, 2014 through March 31, 2014.

Respectfully Submitted,

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Dated: April 30, 2014

**PACIFIC GAS AND ELECTRIC COMPANY**

**PIPELINE SAFETY ENHANCEMENT PLAN (PSEP)**
**COMPLIANCE REPORT**

**NO. 2014-01**

**REPORTING PERIOD**
**JANUARY 1, 2014 – MARCH 31, 2014**

**IN COMPLIANCE WITH CPUC DECISION 12-12-030**

**SUBMITTED APRIL 30, 2014**

PACIFIC GAS AND ELECTRIC COMPANY
PIPELINE SAFETY ENHANCEMENT PLAN (PSEP)
COMPLIANCE REPORT
NO. 2014-01
REPORTING PERIOD
JANUARY 1, 2014 – MARCH 31, 2014
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# PIPELINE SAFETY ENHANCEMENT PLAN (PSEP) COMPLIANCE REPORT NO. 2014-01 IN COMPLIANCE WITH CPUC DECISION 12-12-030

**Introduction**

In response to the California Public Utilities Commission's (CPUC or Commission) order in the Gas Pipeline Safety Order Instituting Rulemaking (R.) 11-02-019, Pacific Gas and Electric Company (PG&E) filed its Pipeline Safety Enhancement Plan (PSEP or Implementation Plan) on August 26, 2011 with the goal of enhancing safety and improving operations. Subsequently, the Commission issued Decision (D.) 12-12-030 on December 28, 2012. Ordering Paragraph (OP) 10 of that decision directs PG&E to file and serve quarterly compliance reports to keep the CPUC and the public informed of PG&E's progress and actual cost experience related to the Implementation Plan. Per OP 10, the PSEP Compliance Reports are to be submitted in compliance with instructions set forth in Attachment D of the decision, which is separated into 29 specific requirements.

PSEP Compliance Report No. 2014-01 is submitted in compliance with the instructions set forth in Attachment D and reflects the reporting period of January 1, 2014 to March 31, 2014. It is being served on the directors of the Commission's Energy Division and the Safety and Enforcement Division, and to the service list in R.11-02-019. It will also be posted on the PG&E website at http://apps.pge.com/regulation.[1]

[1] Click on "Search" under Public Case Documents. Select "Gas Pipeline Safety OIR" from the "Case" dropdown menu. Select filing date of April 30, 2014 to narrow the search criteria. Then click "Search."

## Summary

PSEP is an essential part of PG&E's commitment to rigorous safety standards, improved operations, and better service for its customers and the public.

Since program inception in 2011 through March 31, 2014, PSEP costs have totaled approximately $1.7 billion, with shareholders funding more than $900 million of that amount.[2]

As a result of the commitment and investment from program inception to March 31, 2014, PG&E's accomplishments through PSEP include:

- Completing 541 miles of strength testing.[3]
- Replacing 105 miles of pipeline.[4]
- Upgrading 201 miles of pipeline to accept In-Line Inspection (ILI) technology, of which 90 miles have already been in-line inspected.
- Automating 141 valves.
- Completing the records collection and Maximum Allowable Operating Pressure (MAOP) validation of PG&E's entire transmission pipeline system.[5]
- Making material improvements in PG&E's records processes and tools.

The following table highlights the progress of PG&E's construction activities during the first quarter of 2014 and on a year-to-date (YTD) basis.

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2 PG&E's PSEP Update Application, filed on October 29, 2013, provided PG&E's updated scope and proposed cost recovery of capital expenditures and expenses for the Pipeline Modernization Program (pipeline replacement and strength testing) per D.12-12-030.

3 Includes 51.1 miles proposed in PG&E's PSEP Update Application to be funded outside of PSEP.

4 Miles of pipeline replaced is based on pipe installed and backfilled, retired, or downrated; may not be operative. Quantities are subject to update upon completion of post construction mapping activities.

5 PG&E completed MAOP validation of all its gas transmission pipelines in July 2013. Although PG&E has already validated MAOP for its gas transmission pipelines, PG&E engineering re-validates records of prior strength tests to meet the "traceable, verifiable and complete" standard upon planning for the execution of 2014 work.

**TABLE 1**
**PACIFIC GAS AND ELECTRIC COMPANY**
**SUMMARY OF PSEP CONSTRUCTION ACTIVITY**
**QUARTER ENDING MARCH 31, YEAR-TO-DATE, INCEPTION-TO-DATE AND REMAINING WORK**

| | Q1 2014 | YTD 2014 | Program ITD | Remaining PSEP Work(b) |
|---|---|---|---|---|
| Pipeline Replacement (miles) | 1.1(a) | 1.1 | 105 | 38.3 |
| Strength Testing (miles) | 2.1 | 2.1 | 541 | 117 |
| In-Line Inspection (ILI) (miles) | 12.1 | 12.1 | 90 | 144 |
| Pipeline Upgrades to Allow ILI (miles) | 6.7 | 6.7 | 201 | 0 |
| Valve Automation (valves) | 7 | 7 | 141 | 87 |

(a) Miles of pipeline replaced is based on pipe installed and backfilled, retired, and downrated; may not be operative.

(b) Remaining work for pipeline replacement and strength testing based on the updated scope from PG&E' PSEP Update Application, filed on October 29, 2013. Remaining work for ILI inspection, ILI upgrades and valve automation are based on PG&E's Implementation Plan, filed on August 26, 2011. Remaining PSEP work is subject to change.

In addition to the units completed as shown in Table 1, in the current reporting period, PG&E has delivered tangible improvements to the safety of the gas transmission system, met key program milestones, and demonstrated material improvements in project success criteria, including:

- Maintained safety performance while working more man hours,[6] as compared to the same period in 2013. Lost Work Day Cases[7] and Serious Preventable Motor Vehicle Incidents[8] remain on track to meet or exceed year end targets.
- Held the third Construction Alliance Executive Session between the leadership of PG&E Gas Transmission and all four Gas Transmission Construction Alliance Contractors. The team reviewed the 2013 PSEP results including: improved safety performance, better environmental compliance, improved quality in general, and

6 Man hours consist of total Gas Transmission man hours.

7 Lost Work Day Cases measure the number of Lost Work Day Cases incurred for employees and staff augmentation per 200,000 hours worked, or for approximately every 100 employees. A Lost Work Day Case is a current year Occupational Safety and Health Administration Recordable incident, which is considered an occupational injury or illness that requires medical treatment beyond first aid, or results in work restrictions, death, or loss of consciousness.

8 Serious Preventable Motor Vehicle Incidents measure the number of serious preventable motor vehicle incidents which a driver could have avoided, per 1,000,000 miles driven. The incident is considered serious if one of the following criteria is met: (a) injuries are treated away from the scene of the incident, (b) a vehicle must be towed, and/or (c) PG&E vehicle damage exceeds $5,000.

more efficient project execution. The team identified that the Alliance partnership in 2013 had successfully mitigated resource concern issues and successfully implemented contractor tie-in activities. During the meeting PG&E also discussed proposed contract changes, including retention alternatives and enhancements to improve true-up timing, and other project delivery efficiency improvements.

- During the first quarter of 2014, PG&E's Gas Transmission ILI Team achieved a key milestone by utilizing a custom-built set of ILI "Smart Pigs"[9] designed to pass through pipelines ranging from 30" to 36" in a single run, while operating at low pressures (down to 270 pounds per square inch gauge) and traversing challenging pipeline features, such as short radius 1D bends. Prior to the development of this custom-built set of ILI "Smart Pigs" no ILI tools capable of inspecting the section of L-101 between Milpitas and Palo Alto (given its current configuration and operating pressure) had existed. This section of L-101 was retrofitted to accommodate ILI between 2012 and 2013, and the inspection was successfully performed in February 2014.
- As a result of lessons learned from 2013, and as part of its process improvement efforts, PG&E's PSEP Project Management Office (PMO) has established small cross-functional teams to focus on improving project execution and to implement cost-effective solutions. The teams will further define, explore, and manage initiatives involving coordination across multiple functional groups including: engineering, construction, land, environmental, sourcing, and contract management.
- Completed earlier design of this year's project portfolio, as compared to 2013. As of March 2014, out of 166[10] projects planned for 2014 for Pipe Replacement, Strength Test, ILI and Valve, approximately 56 percent of projects have reached 90 percent engineering completion or higher, compared to 38 percent in 2013.
- Successfully remediated one pipeline leak identified during strength testing on L-400 in March. The remediation included the replacement of approximately 19 feet of pipeline.

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9 "Smart Pigs" are designed to identify and provide sizing for anomalies affecting the line, such as dents and metal loss. The tools are propelled using the flow of natural gas, which allows PG&E to avoid interruption of service to customers.

10 Excludes 48 Replacement Shorts projects planned for 2014. PG&E has 214 PSEP projects planned for 2014.

Notwithstanding these successes and process improvements, PG&E faces challenges in completing all projects scheduled for 2014 by the end of 2014 as a result of delays in securing land rights and obtaining construction permits for some of its 2014 planned projects. Due to these challenges, there is an increasing risk that PG&E may not be able to construct all of its planned PSEP pipe replacement, ILI or valve automation projects in 2014. Project teams are actively coordinating mitigation efforts, which address a variety of scheduling risks including environmental and construction permitting, and land rights acquisition.

Table 2 provides a summary of the PSEP activities and actual costs from program inception in April 1, 2011 to March 31, 2014. Please see the response to Question 20 for further detail.

**TABLE 2**
**PACIFIC GAS AND ELECTRIC COMPANY**
**SUMMARY OF PSEP FILED VS. ACTUAL COSTS BY WORKSTREAM**
**REPORTING PERIOD JANUARY 1 – MARCH 31, 2014 (IN MILLIONS OF DOLLARS)**

| | 2011 PG&E Filing Estimate | Authorized Program Costs [Original Filing](a) | 2013 Proposed Program Costs [Update Application](b) | Actual Costs Program Inception-to-Date (2011 – 03/31/14)(c)(e) | Actual Costs Reporting Period (01/01/14 – 03/31/14)(c) |
|---|---|---|---|---|---|
| **Pipeline Modernization** | | | | | |
| Pipeline Replacement | $839.1 | | $534.1 | $586.9 | $34.0 |
| Strength Testing | 456.8 | | 160.2 | 580.3 | 15.5 |
| In-Line Inspections/Upgrades | 39.9 | | 38.8 | 61.4 | 5.6 |
| **Subtotal** | **$1,335.8** | **$1,002.0** | **$733.2** | **$1,228.6** | **$55.1** |
| Valve Automation | 143.6 | 135.7 | 135.7 | 107.1 | 10.3 |
| Pipeline Records Integration | 286.0 | 0.0 | 0.0 | 327.0 | 7.4 |
| Interim Safety Enhancement Measures | 3.2 | 2.1 | 2.1 | 4.9 | 0.2 |
| Program Management Office (PMO) and Other(d) | 34.8 | 28.9 | 28.9 | 53.5 | 4.0 |
| Risk-Based Contingency | 380.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total** | **$2,183.9** | **$1,168.8** | **$899.9** | **$1,721.1** | **$76.9** |

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(a) Authorized amounts as provided in Attachment E, Table E-4, of D.12-12-030. The authorized amounts for pipeline replacement and strength testing may change in the future, pending the outcome of PG&E's PSEP Update Application filed on October 29, 2013.

(b) Update Application amounts as referenced in costs requested in the October 29, 2013 PSEP Update Application, in A.13-10-017, detailed in the Workpapers Supporting Chapter 2, Table 2-1, "Capital Expenditures and Expenses by Maintenance Activity Type (MAT)."

(c) Includes Stanpac costs incurred of approximately $10.00 million and -$0.29 million, on a program inception-to-date basis and for the reporting period, respectively. Amounts include reallocation of prior period amounts consistent with PSEP scope decisions and cost allocation.

(d) "Other" includes costs of activities pending assignment to an individual workstream or determined as not directly associated with an individual workstream.

(e) Inception-to-Date amounts include reallocation of prior period amounts consistent with PSEP scope decisions and cost allocation.

## Decision-Making Process

### 1. Project Planning and Prioritization of Work

*Describe PG&E's project planning process including how the projects were and are being scheduled and sequenced and what measures were and are being taken to conduct the work in a cost effective manner.*

**Response**

PSEP's prioritization and scheduling processes remain consistent with the descriptions previously provided in PSEP Compliance Report No. 2013-01 and testimony supporting PG&E's August 26, 2011 Implementation Plan.[11] During the first quarter of 2014, work prioritization for pipeline replacement and strength testing projects has been driven by the results of applying PSEP Decision Trees to validated pipeline segment attribute data as presented in PG&E's PSEP Update Application (A.13-10-017). Work prioritization for valve automation and ILI projects continues to be driven by the results of applying PSEP Decision Trees to pipeline segment attribute data as detailed in PG&E's August 2011 Implementation Plan.

PG&E is actively seeking to address all challenges in executing all of its remaining Phase 1 planned projects in 2014.[12] Schedule dependencies related to the acquisition of land rights, construction permits, and environmental permits on approximately 15 pipeline replacement, ILI and valve automation projects may likely result in a delay of construction commencement.[13] As previously reported in prior PSEP Compliance Reports, PG&E had been able to mitigate the impact of similar schedule dependencies and resultant delays by accelerating projects from later years in Phase 1. In 2014, the last originally scheduled year of Phase 1 construction, the measures described above are not possible as the planned 2014 projects reflect the remaining scope of PSEP Phase 1. Even small delays to projects could move construction and operational dates into 2015. PSEP project

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11 PG&E PSEP Implementation Plan (R.11-02-019) Prepared Testimony, Chapter 3 – Gas Transmission Pipeline Modernization Program, Section A.5, and Chapter 4 – Gas Transmission Valve Automation Program, Section K.1.

12 Five projects currently have a tie-in date of 2015.

13 The number of projects may change, as will the resultant magnitude of impact, depending on risk factors including: land rights, environmental permits, and other permits.

teams are actively coordinating mitigation efforts, designed to minimize the potential impact of these scheduling risks.

Table 1-1 of the Appendix provides details on the current population of 15 individual projects across four PSEP construction workstreams that are at risk for completion by December 31, 2014. With respect to these projects, Table 1-1 includes project descriptions, miles affected and drivers for potential project delays.

In addition, project scheduling in the current reporting period has incorporated ongoing assessments of pipeline system operational safety, customer service requirements, permitting restrictions, and cost-effectiveness. Material project-level changes to scope and schedule, during the reporting period, as a result of these processes are also provided within the "Comments" column of the table responses to Questions 11 through 13.

Of the 42 projects identified in PSEP Compliance Report No. 2013-04 as scheduled to commence construction in the first quarter of 2014, 27 projects have commenced construction as planned, and 15 projects have been rescheduled to commence construction later in 2014. Of the 27 projects that commenced as planned within the reporting period, 12 projects were completed.[14]

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14 PG&E's PSEP Update Application, filed on October 29, 2013, provides an updated list of 2011-2014 pipe replacement and strength testing projects, including original planned and actual operational dates, as applicable.

**TABLE 1-2**
**PACIFIC GAS AND ELECTRIC COMPANY**
**DATA POINT/TABLE 1-1 COLUMN REFERENCE**

| Column Name | Description |
|---|---|
| Line # | Reference number for this report. |
| PSEP Filing PSRS | PSRS number provided in workpapers supporting PG&E's August 26, 2011 filing. |
| New PSRS | PSRS number provided in workpapers supporting PG&E's PSEP Update Application for pipeline replacement or strength test projects commonly resulting from project split or addition. |
| Project Description | Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's October 29, 2013 PSEP Update Application for pipeline replacement and strength testing. |
| City | Location of project. |
| Mobilization Date | Project start date. |
| Tie-In Date | Anticipated project finish date. |
| Miles at Risk | Number of miles at risk of non-completion by December 31, 2014. |
| Drivers of Potential Project Delay | A description of underlying reasons why PSEP construction projects may be at risk of non-completion by December 31, 2014. |

## Resource Procurement and Oversight

### 2. Resource Planning

*Explain how PG&E decided whether to do the work in-house (e.g., use own employees and equipment) or contract the work out to other parties.*

**Response**

PSEP's resource planning process remains consistent with the description previously provided in PSEP Quarterly Compliance Report No. 2013-01. To ensure that Implementation Plan work is completed on a timely basis, PG&E has implemented a resource management model whereby the skills and experience of PG&E employees are augmented by contractor resources. PG&E also uses contractor resources where it has identified the need to efficiently leverage new skills or equipment within an accelerated timeframe, or where the use of a contractor provides additional expertise.

During the current reporting period, program activities related to the selection of contractors have included, but are not limited to:

- Ongoing review of results of safety, environmental, and quality assurance inspection activities at construction contractor project sites;
- Weekly regional work allocation meetings to monitor and coordinate individual project resourcing by Alliance construction contractors; regional work being identified as an outcome of a work allocation process conducted in partnership with PG&E Gas Transmission General Construction (GTGC); and
- Construction Alliance Executive Session meetings between the leadership of PG&E and all four Alliance contractors.

## 3. Contractor Selection Process

*For work contracted out to other parties, what criteria did PG&E use to select the contractors and did PG&E use a competitive bidding process to select the contractor(s)? If not, explain why.*

**Response**

No material changes in PG&E's contractor selection and competitive bidding processes, as previously outlined in the PSEP Compliance Report No. 2013-01, have been made during the current reporting period.[15] PSEP continues to employ an Alliance construction contractor delivery model for its 2014 PSEP construction projects, which integrates available resources from PG&E GTGC with Alliance construction contractors. While GTGC is scheduled to deliver the single largest volume of 2014 construction activity, the majority of the 2014 portfolio of projects have been allocated to the four Alliance regional contractors. The primary objectives of the Alliance strategy remain the establishment of best-in-class safety performance, a robust construction delivery model, and the maintenance of a qualified and skilled workforce to perform work planned. PG&E's Master Service Agreement (MSA) is being revised to incorporate lessons learned during 2013. The Alliance model includes the following key components:

*Resources and Planning*

- Consistent "A" team availability and scalable crew composition.
- Commitment to provide early constructability feedback via joint planning and co-location.
- Bundling of work across PSEP workstreams and within four regional areas that span PG&E's entire service area to reduce "peaks and valleys" in resource requirements.
- Collaboration on industry best practices and lessons learned.

*Performance Measurement*

- Increased transparency and alignment across construction cost estimation models using negotiated standardized "open book" labor and equipment rates and consistent overhead (general and administrative) expenses.

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15 PSEP construction contracts are competitively bid when PG&E and Alliance contractors are unable to negotiate a target price. As reported in PSEP Compliance Report No. 2013-03, one such instance has occurred in 2013.

- Shared project risk/incentive model using a negotiated “target pricing” model, in which under and over runs are shared on a 50:50 basis.
- Project completion cost true-up and lessons learned—costs being fully auditable where appropriate.
- Five-year agreement with cancellation off ramps, including option to bid any portion of work to maintain pricing/cost discipline.
- Monthly program score carding and quality leadership reviews.

Construction-related project activities performed outside of either the Alliance contracting process or PG&E’s GTGC are assigned to existing suppliers using existing MSAs that were previously subject to competitive bidding, or assigned on a Direct Award basis, based on the nature of the specific services required by the project.[16]

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16 Please refer to PSEP Compliance Report No. 2013-01, Question 3, p. 11, for a description of Direct Award.

## 4. Quality Assurance – Outside Contractors

*How does PG&E monitor the quality of work performed by outside contractors? Has PG&E found any instances where a contractor failed to do the work properly? If so, what actions did PG&E take in response?*

**Response**

No material changes in PG&E's procedures that monitor the quality of work performed by outside contractors (as previously outlined in prior PSEP Compliance Reports) occurred in the current reporting period.

PG&E has found instances where the contractor did not perform quality work according to PG&E's internal standards. In such situations, and as appropriate, PG&E takes specific actions to maintain the integrity of its gas transmission system and to ensure such instances do not reoccur. Examples of such quality monitoring activities at gas transmission construction projects and related issues identified during the reporting period include:[17]

- PG&E's Quality Assurance/Quality Control (QA/QC) department performed 74 field assessments in the first quarter of 2014. These field assessments were conducted on 13 individual projects throughout PG&E's service territory. Three Corrective Action Notices (CANs) were issued by PG&E and were primarily related to errors in documentation of the work performed. These CANs are being tracked to resolution by PG&E's QA/QC department and are being logged into PG&E's Corrective Action Program for trending and tracking purposes. To avoid reoccurrence and to increase awareness among field personnel, all issues are communicated by the QC assessor to the lead inspector or field engineer at the time of discovery. In addition, the QC assessor provides information explaining the nature of the quality issue (i.e., providing direction on proper documentation, and issues a QC CAN).
- Completion of 176 job-site safety observations. Through these observations, 24 observable items were identified. All of the observable items were mitigated to align with the on-site contractor site-specific safety plan. As a result, 81 "good catches"[18] were identified, addressed and communicated to

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17 The information provided includes contractors and employees.

18 "Good catches" are potentially unsafe situations that were brought to site personnel's attention and rectified.

every contractor or employee working on a PG&E project to raise worksite safety awareness.

- PSEP Leadership Observation Teams visited 21 construction sites to engage work crews regarding safety, quality and to promote best practices.[19]
- PG&E completed 1,005 environmental inspections to monitor and ensure compliance with PG&E standards. The environmental inspections identified 60 compliance deficiencies,[20] one compliance issue,[21] and zero non-compliance issues.[22] Aside from immediate remediation on site, these issues are addressed through a correction action plan investigation. The resulting lessons learned and process changes, as applicable, are shared with environmental staff, construction contractors, and GTGC at tailboards and weekly regional Alliance Contractor meetings.
- While completing post tie-in work on a L-172A pipeline replacement project, a contractor construction crew attempted to segment a section of pipeline that was assumed to be the recently retired L-172A. During the cutting process a 'pin-hole' leak was created, resulting in a loss of containment. After researching as-built plans, plats, and other GIS information, it was concluded that the line that had been cut was L-116, which at the time was operating at 680 PSIG. The line was isolated and a 2" save-a-valve was welded over the pin hole. Mark and Locate re-marked both L-116 and retired L-172A. Additional investigations of this incident are ongoing.

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19 The PSEP Leadership Observation Team visits construction project sites to ensure safety compliance and to promote best practices.

20 A compliance deficiency is a correctable item that does not have a significant impact on resources or environmental resources.

21 A compliance issue is a situation or minor problem that needs to be addressed immediately to prevent resource damage or environmental noncompliance.

22 A non-compliance issue does not fulfill PG&E's internal environmental requirements and results in an impact on resources or places environmental resources at risk.

**5. Quality Assurance – Internal Resources**

*What quality assurance procedures does PG&E have in place to determine whether the project work is being done correctly by its own employees? Has PG&E found any instances where the work was not done properly? If so, what actions did PG&E take in response?*

**Response**

No material changes in PG&E's procedures that monitor the quality of work performed by internal resources (as previously outlined in prior PSEP Compliance Reports) occurred in the current reporting period.

PG&E has found instances where employees did not perform quality work. In such situations, and as appropriate, PG&E takes specific actions to maintain the integrity of its gas transmission system and to ensure such instances do not reoccur. Please refer to the response to Question 4 for examples of such quality issues identified during the reporting period.

6. **Project Management Office Overview**

*Describe the role of the Program Management Office (PMO) (see p. 7-10 of Prepared Testimony) in containing project costs. Provide specific examples where the PMO's recommendations led to cost savings.*

**Response**

The role of the PMO, as described in the prepared testimony referenced in the question above, remains unchanged and its objectives can be summarized as follows:

- To help manage the overall Program execution and to coordinate the activities of interrelated projects or workstreams.
- To provide oversight and provide observations and recommendations for process improvements and enhanced performance.
- To provide assurance that Program control tools and procedures are operating in the way they are intended to achieve Program objectives.

The operation of each of the groups within the PSEP PMO support these objectives, and in doing so, contribute to the cost-effective execution of the Implementation Plan. While it is not possible to disaggregate and quantify individual cost savings impacts, during the current reporting period, the PSEP PMO has continued to work with each workstream on a series of improvement initiatives that are designed to lead to cost savings. These initiatives include, but are not limited to:

- Continuous Improvement and Lessons Learned:
  - <u>Cross-Functional Teams</u>: To improve project execution and to coordinate the activities of interrelated projects or workstreams, the PSEP PMO established and is coordinating small cross-functional teams focused on developing process improvements. The teams will explore, define, and manage these initiatives, coordinating across functional groups including: engineering, GTGC, construction management, environmental, sourcing, land, and contract management.
- Construction Contractor Alliance:
  - <u>Project Performance Measurement and Target Pricing</u>: As part of the continued implementation of an Alliance construction contractor delivery model, the PSEP PMO has developed and continued the implementation of a performance measurement process. This process finalizes approved

change orders and incorporates cost validation activities with Alliance construction contractors that ultimately result in "true-up" payments to or from the construction contractor (based upon a 50:50 sharing of validated costs in excess of, or below, the final target price.) Within the current reporting period, PG&E completed sixteen project true-ups with realized savings to PG&E of approximately $1.5M or approximately five percent of the aggregate project final target prices. Extended change order negotiations and processing as well as gathering, receipt, and review of actual costs from Alliance Partners increased the time required to true-up and close out projects. PG&E and the Alliance contractors are working diligently to validate costs on all 2013 completed construction projects, and expect to complete the outstanding true-ups in the second quarter of 2014.

  - <u>Construction Resource Availability and Efficiency</u>: In order to mitigate any project delays and to ensure consistent and sustained access to "A-team" resources, the PSEP PMO continues to lead weekly review meetings with the Alliance construction contractors. These meetings discuss resource issues (e.g., mitigating individual project delays by bringing forward work on future projects) and bundled work in an assigned geographical region.
  - <u>Continuous Improvement and Lessons Learned</u>: In partnership with the PSEP PMO, Shared Services gathered Alliance-contractor-identified potential improvements and integrated these into the continuous improvement initiatives, as noted above.

- Extending the Capabilities of PG&E's Construction Management Tool:
  - <u>Construction Management Tool</u>: To further increase the efficiency of construction management activities, the PSEP PMO plans to extend access and workflow capabilities to the engineering group and GTGC in the second quarter of 2014. The PSEP PMO team currently supports more than 400 users on this system responding to requests for information, and approving construction change orders.

A broader list of lessons learned is being implemented and tracked within each workstream and is provided in response to Question 17.

## 7. Project Management Office Costs and Benefits

*Provide the costs incurred by the PMO year-to-date and describe the specific work they did for the benefit of PG&E customers.*

**Response**

The PSEP PMO incurred approximately $2.9 million during the period January 1 to March 31, 2014. Consistent with PG&E's commitment to customers to provide safe, reliable, and affordable gas service, the PSEP PMO is responsible for the successful delivery of all projects within PG&E's Implementation Plan.

Since the beginning of the program, the PSEP PMO, in partnership with project teams and cross-functional leads (such as PG&E's Customer Care and Corporate Communications organizations) has focused on many areas that directly benefit PG&E customers including:

- <u>Improving Construction Site Safety</u>: Implemented a series of safety focused activities designed to improve construction site safety for employees, customers, and local communities, including leadership site visits, "good catch" or "near hit" reporting, after hours site security audits, and job hazard mitigation analyses. In addition, the program maintains metrics that measure performance against safety improvement targets for construction related public safety incidents and at-fault "dig-ins." PG&E's 2014 safety targets for these metrics and other safety performance measures have been set on a consistent basis across all of PG&E's gas transmission construction activities. These metrics target significant improvements in safety performance, as compared to 2013, for both Alliance construction contractors and GTGC. Through the end of the current reporting period, all safety performance metrics, except the Public Safety Incident rate were on track to meet or exceed their respective 2014 targets.[23] As of March 31, 2014, the recordable incident rate on gas transmission construction activities was 1.52.[24]

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[23] The Public Safety Incident rate is not on track due to two incidents in which a motor vehicle struck a stationary object. As a result Safety teams continue to reinforce safe driving behaviors with construction contractors and GTGC.

[24] The recordable incident rate includes hours worked by Alliance contractors, Construction Management inspectors, and PG&E General Construction resources on PSEP construction projects.

- Improving Environmental Compliance: Inspection findings and feedback to PG&E and contractor construction resources have focused on addressing compliance performance related to approved soil off-haul procedures, storm water management plans, dust control readiness and implementation, and fire prevention and response readiness. As of March 31, 2014, PSEP remained significantly ahead of plan to meet or exceed a 10 percent reduction in inspection findings compared to its 2013 environmental compliance incidence rate.
- Maintaining Consistency of Pre-Construction Customer Communications: During the current reporting period, PG&E has consistently communicated with customers on PSEP-related activities through distributing pre-venting notifications, hosting open houses, and providing customer communication materials.
- Improving Customer Outage Management: PG&E continued to leverage its increased Compressed Natural Gas/Liquefied Natural Gas (CNG/LNG) fleet. Project planning improvements implemented during 2014 deliver earlier and better visibility into customer demand requirements and enable more efficient planning of CNG/LNG resources and flexibility with customer schedules. This improvement has helped minimize planned customer outages and reduce the risk of unplanned customer outages.

Finally, the PSEP PMO's role during the current reporting period continued to include many activities that also indirectly support customer services, including the implementation and management of consistent program controls and governance, quality control, reporting, and initiatives designed to improve project success and increase cost efficiencies.

## Budget and Spending

### 8. Factors Impacting Cost Effectiveness

*Describe any factors, either internal or external, that may have prevented or affected PG&E from conducting the work in a more cost effective manner. Quantify the cost impact of such factors.*

**Response**

PG&E's PSEP has consistently identified project uncertainties, and implemented risk mitigation activities and remediation measures. Despite best efforts, PG&E has not been able to fully mitigate the potential impact of cost uncertainties. Factors that have driven these cost impacts in projects completed in the current reporting period include:

- Project Definition: Changes in project scope upon completion of data validation and prioritization of individual pipeline segments to maintain system integrity and public safety (i.e., shortened project lengths, increased project counts, and reduced development schedules).
- Pipeline Routing Restrictions: Increased complexity and cost of pipeline routing due to the limitations on the use of urban franchise areas, existing utilities, and infrastructure (i.e., increased construction costs and duration).
- Geographical Conditions: High water table, trench dewatering costs, poor or weak soil, excessive permitting conditions, site specific contamination, and excessive waste disposal fees (i.e., increased construction costs and duration).
- Permitting and Land Rights: Delays and uncertainty in receiving permits from state and local authorities while acquiring additional land rights from customers (i.e., project forced to adopt costly "in-road" construction within franchise rather than being able to pursue more cost-effective verge construction that is subject to extended permitting timelines.) Increased permitting conditions, restricted work hours to avoid road/lane closures during heavy commute hours (i.e., compacted construction schedules).
- Unidentified Pipeline Field Conditions: Additional construction activities, including pipeline cleaning (to meet unique wastewater disposal requirements), the removal of pipeline anomalies, the repair and replacement of pipe, valves and fittings due to condition, construction obstructions, and

re-engineering due to previously unidentified non-PG&E structures or other utilities (i.e., increased construction duration and costs).

- Gas System and Customer Service Constraints: Limited availability of gas system clearances due to seasonal customer demand and system operations, safety related pressure reductions, CNG/LNG resource requirements, and the availability of PG&E and contract construction crews to complete tie-ins—particularly during peak summer construction periods and towards the end of the calendar year (i.e., increased construction durations and costs).

Our response to Question 19 provides PG&E's most recent risk management assessment with a project-by-project analysis of unexpected or unforeseen items that have affected 2014 completed projects and the resulting cost and schedule impacts.

## 9. Procurement Policy and Practices

*Describe PG&E's procurement policy and practices for pipe and other materials used for projects. Was a competitive bidding process used? If not, explain why. Describe what factors PG&E considers in procuring material ranked by importance. Identify the manufacturer(s) or suppliers of the pipe used for the replacement projects and for any material that cost more than $100,000 per item.*

**Response**

The majority of material is purchased from existing suppliers through MSAs, the terms and conditions of which (including unit pricing) are the result of a competitive bidding process.

Material supplier selection, the competitive bidding processes, and factors previously described in PSEP Compliance Report No. 2013-01 were unchanged during the current reporting period.

Manufacturers or suppliers of the pipe used for PSEP replacement projects are:

- Berg Pipe
- Durabond Industries
- California Steel Industries
- U.S. Pipe
- Tenaris
- Voestalpine
- PTC Alliance
- Wheatland Tube

No materials procured during the current reporting period cost more than $100,000 per item.

## 10. Pipeline Disposition Procedures and Costs

*What was the disposition (e.g., sold) of replaced pipe and other material? Identify all the amounts earned for the disposition of the material, costs incurred to transport or dispose of the material and regulatory treatment of the incurred costs and revenues.*

**Response**

The disposition of transmission pipeline and other material replaced as part of the PSEP program—stored, hazardous waste, retired-in place or salvage—and related cost allocations as described in PSEP Compliance Report No. 2013-01 remain unchanged during the reporting period. PG&E has recovered approximately $59,879 for the first quarter of 2014 as a result of salvage activities.

## Project Status Summaries

### 11. Projects Completed Year-to-Date

*Provide a complete description or a specific reference to proceeding workpapers, of projects completed during this reporting period and those completed Year-to-Date, include the start and finish dates. On a project-by-project basis, provide the amount budgeted for the project and an itemized list of the costs, including labor and material, incurred completing of the project. Identify the amount that a project was over or under-budget. Indicate whether the work was done in-house or by outside contractor(s). Identify the outside contractor(s). Explain how the work was done in compliance with D.11-06-017 and PG&E's Decision Tree and, if so, provide the Decision Tree outcome identifier associated with each project. Identify costs that shareholders will absorb.*

**Response**

Table 11-1 of the appendix provides details on 24 individual projects across five PSEP construction workstreams[25] that were completed by PG&E during the current reporting period and YTD.[26] With respect to these projects, Table 11-1 includes specific reference to proceeding workpapers, including the construction start and finish dates.[27] In addition, it provides, on a project-by-project basis, the amount budgeted for the project and an itemized list of the costs (e.g., including labor and materials incurred in completing the project); the amount that a project was over or under budget; and whether the work was completed in-house or by outside contractor(s), including the identification of the outside contractor(s).

All work detailed in Table 11-1 was undertaken in compliance with D.11-06-017; each project includes pipeline segments for which a prior strength test has previously not been performed and/or for which traceable, verifiable and complete records of such a test do not exist. PG&E's Workpapers Supporting

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25 Includes: pipeline replacement, strength testing, ILI, pipeline ILI upgrades, and valve automation. Miles of pipeline replaced is based on pipe installed and backfilled, retired, and downrated; may not be operative. Project information is subject to update upon completion of project closeout procedures including completion of construction documentation ('as-builting'), mapping and closeout.

26 For the purposes of this report, the completion of a project is the date the pipeline segments and valves are returned to operations.

27 Construction finish date reflects completion of project tie-in, see Table 11-2.

Chapter 2, Gas Transmission Pipeline Modernization Program Update, of the PSEP Update Application provides descriptions of how each of the pipeline replacement and strength testing projects listed in Table 11-1 was performed in compliance with D.11-06-017, including the associated segment-level Decision Tree outcome identifier. PG&E's Workpapers Supporting Chapter 3, Gas Transmission Pipeline Modernization Update, and Chapter 4, Valve Automation Program, of the August 26, 2011 PSEP filing provides descriptions of all planned PSEP ILI and valve projects that have been or will be performed in compliance with D.11-06-017.

As PG&E progressed from the preliminary work scope and associated estimates and work plans included in its August 2011 PSEP filing, it developed more specific work plans and estimates. These refined estimates, or "Job Estimates," are used in this report for Questions 11 through 13 and 15, to represent the budgeted amount by project for a more meaningful comparison to total costs. Upon completion of the Phase 1 work scope, PG&E will have to reconcile its total incurred costs for the work scope to the amounts adopted by the CPUC in order to determine the final disposition of shareholder costs. See Table 20-1 for the total amount of costs that shareholders have absorbed YTD based upon amounts previously authorized by the CPUC, shown by month and broken down by activity.

Table 11-2 provides a reference for the specific data points requested in Question 11 to their corresponding columns in Table 11-1 of the appendix. Additional data points are included for context in navigating the tables.

**TABLE 11-2**
**PACIFIC GAS AND ELECTRIC COMPANY**
**DATA POINT/TABLE 11-1 COLUMN REFERENCE**

| Column Name | Description |
|---|---|
| Line # | Reference number for this report. |
| PSEP Filing PSRS | PSRS number provided in workpapers supporting PG&E's August 26, 2011 filing. |
| New PSRS | PSRS number provided in workpapers supporting PG&E Update Application for pipeline replacement or strength test projects commonly resulting from project split or addition. |
| Order Number | Financial system of record reference number to track specific costs, e.g., on individual projects. |
| Project Description | Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's October 29, 2013 Update Application for pipeline replacement and strength testing. Includes project reference IDs that start with a letter that reflects the construction activity or workstream (i.e., R – pipe replacement, T – strength testing, V – valve automation, and I – in-line inspection). |
| City | Location of project. |
| Construction Contractor | Contractor who performed the work ("GC" refers to PG&E in-house). |
| Mobilization Date | Project start date. |
| Tie-In Date | Project finish date. |
| Job Estimate Amount | Amount budgeted for project after completing project engineering, routing, permitting and construction bids. |
| Total Cost | Itemized costs per project completed. |
| Labor Cost | |
| Materials Cost | |
| Contracts Cost | |
| Other Cost(a) | |
| Variance to Budget | Variance between Total Cost and Job Estimate (see Question 19). |
| PSEP Disallowed Cost | Project costs disallowed per CPUC D.12-12-030, i.e., post-1955 pipe work (does not include any estimation of amounts in excess of individual workstream authorized expenses and capital expenditures). |
| Non-PSEP Costs | Project costs not recoverable within PSEP. |
| >10% Over Budget | Projects greater than 10 percent over Job Estimate. |
| Comments | Descriptions of changes to the project, including project additions, accelerations, delays, and cancellations. |

(a) Other costs include costs not included in Labor, Materials, or Contracts, such as overhead.

## 12. Projects Started, Pending Completion

*Provide a complete description, or a specific reference to proceeding workpapers, of projects that have begun but are currently unfinished, include the start and anticipated completion dates. On a project-by-project basis, provide the amount budgeted for each project. Explain how the work is being done in compliance with D.11-06-017 and PG&E's Decision Tree and, if so, provide the Decision Tree outcome identifier associated with each project.*

**Response**

Table 12-1 of the appendix provides details on 28 individual projects across four construction workstreams where construction has commenced but the project has not yet been returned to operations (tied-in) as of March 31, 2014. Table 12-1 includes specific reference to workpapers of projects that have started construction but are not yet completed as of the end of the reporting period. Table 12-1 includes the construction start and anticipated finish dates. In addition, it provides, on a project-by-project basis, the amount budgeted for the project.

All work detailed in the table was undertaken in compliance with D.11-06-017; each project includes pipeline segments for which a prior strength test has previously not been performed and/or for which traceable, verifiable and complete records of such a test do not exist. PG&E's PSEP Update Application Workpapers Supporting Chapter 2, Gas Transmission Pipeline Modernization Program Update provides descriptions of how each of the pipeline replacement and strength test projects listed in Table 12-1 is being performed in compliance with D.11-06-017, including the associated segment-level Decision Tree outcome identifier. PG&E's August 26, 2011 PSEP filing, Workpapers Supporting Chapter 3, Gas Transmission Pipeline Modernization Update, and Chapter 4, Valve Automation Program, provides descriptions of all planned PSEP ILI and valve projects that have been and will be performed in compliance with D.11-06-017.

Table 12-2 provides a reference for the specific data points requested in Question 12 to their corresponding column in Table 12-1 of the appendix. Additional data points are included for context in navigating the tables.

**TABLE 12-2**
**PACIFIC GAS AND ELECTRIC COMPANY**
**DATA POINT/TABLE 12-1 COLUMN REFERENCE**

| Column Name | Description |
|---|---|
| Line # | Reference number for this report. |
| PSEP Filing PSRS | PSRS number provided in workpapers supporting PG&E's August 26, 2011 filing. |
| New PSRS | PSRS number provided in workpapers supporting PG&E's PSEP Update Application for pipeline replacement or strength test projects commonly resulting from project split or addition. |
| Project Description | Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's October 29, 2013 PSEP Update Application for pipeline replacement and strength testing. |
| Mobilization Date | Project start date. |
| Tie-In Date | Anticipated project finish date. |
| Job Estimate Amount | Amount budgeted for project after completing project engineering, routing, permitting and construction bids. |
| Comments | Descriptions of changes to the project, including project additions, accelerations, delays, and cancellations. |

## 13. Projects Planned, But Yet to Start

*Provide a complete description, or a specific reference to proceeding workpapers, of projects that were forecasted for Phase 1 that have yet to start, include the anticipated start and anticipated completion dates. Rank the priority of these projects and explain the ranking. On a project-by-project basis, provide the amount budgeted for the project. Explain how the work was done in compliance with D.11-06-017 and PG&E's Decision Tree and, if so, identify the Decision Tree outcome identifier associated with each project.*

**Response**

Table 13-1 of the appendix provides detail on 141 individual projects across five construction workstreams where pre-construction activities have commenced but construction resources have not yet mobilized as of March 31, 2014.

Table 13-1 provides specific reference to proceeding workpapers, of projects that have yet to commence construction as of the end of the reporting period.[28] For each project, PG&E has supplied the current anticipated construction start and finish dates which reflect the updated output of the prioritization and schedule procedures or ranking noted in response to Question 1. In addition, the table provides, on a project-by-project basis, the amount budgeted for some projects.

All work detailed in the table was undertaken in compliance with D.11-06-017. PG&E's PSEP Update Application, Workpapers Supporting Chapter 2, Gas Transmission Pipeline Modernization Program Update, and provides descriptions of how each of the pipeline replacement and strength testing projects listed in Table 13-1 will be performed in compliance with D.11-06-017, including the associated segment-level Decision Tree outcome identifier. PG&E's August 26, 2011 PSEP filing, Workpapers Supporting Chapter 3, Gas Transmission Pipeline Modernization Update, and Chapter 4, Valve Automation Program, provides descriptions of all planned PSEP ILI and valve projects that have been and will be performed in compliance with D.11-06-017.

Table 13-2 provides a reference for the specific data points requested in Question 13 to their corresponding column in Table 13-1 of the appendix. Additional data points are included for context in navigating the tables.

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28 Table 13-1 includes projects that have commenced pre-construction activities, but not yet mobilized.

**TABLE 13-2**
**PACIFIC GAS AND ELECTRIC COMPANY**
**DATA POINT/TABLE 13-1 COLUMN REFERENCE**

| Column Name | Description |
|---|---|
| Line # | Reference number for this report. |
| PSEP Filing PSRS | PSRS number provided in workpapers supporting PG&E's August 26, 2011 filing. |
| New PSRS | PSRS number provided in workpapers supporting PG&E's PSEP Update Application for pipeline replacement or strength test projects commonly resulting from project split or addition. |
| Project Description | Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's October 29, 2013 PSEP Update Application for pipeline replacement and strength testing. |
| Mobilization Date | Anticipated project start date. |
| Tie-In Date | Anticipated project finish date. |
| Job Estimate Amount | Amount budgeted for project after completing project engineering, routing, permitting and construction bids. |
| Comments | Descriptions of changes to the project, including project additions, accelerations, delays, and cancellations. |

## 14. Additional Projects Not in Original Workpapers

*Describe, in detail, projects that PG&E has completed, are work-in-progress, or have yet to start that were not included in the workpapers submitted in R.11-02-019. Explain why these projects have been included in Phase 1 and whether these projects have lowered the priority of other projects identified in proceeding workpapers and, if so, why. Explain how this work complies with D.11-06-017 and PG&E's Decision Tree and provide the Decision Tree outcome identifier associated with each project.*

**Response**

In the tables referenced in PG&E's prior responses to Questions 11-13, PG&E has identified 12 projects that were not included in the workpapers submitted in the August 2011 PSEP filing and were not included in the PSEP Update Application workpapers. PG&E has added a new appendix table, Table 14-1, to specify new projects that were not in the workpapers, which have been completed, are work-in-progress, have yet to start and accepted by PG&E's Change Control Board. In each case, an explanation of why these projects have been included in Phase 1 is provided in the column titled, "Comments." Table 14-2 provides a reference for the specific data points requested in Question 14 to their corresponding column in Table 14-1 of the appendix. Additional data points are included for context in navigating the tables.

PG&E's PSEP Update Application, Workpapers Supporting Chapter 2, Gas Transmission Pipeline Modernization Program Update provides descriptions of how each of the pipeline replacement and strength testing projects listed in Tables 11-1, 12-1, and 13-1 will be performed in compliance with D.11-06-017, including the associated segment-level PSEP Decision Tree outcome identifier.

**TABLE 14-2**
**PACIFIC GAS AND ELECTRIC COMPANY**
**DATA POINT/TABLE 14-1 COLUMN REFERENCE**

| Column Name | Description |
|---|---|
| Line # | Reference number for this report. |
| PSEP Filing PSRS | PSRS number provided in workpapers supporting PG&E's August 26, 2011 filing. |
| New PSRS | PSRS number provided in workpapers supporting PG&E's PSEP Update Application for pipeline replacement or strength test projects commonly resulting from project split or addition. |
| Order Number | Financial system of record reference number to track specific costs, e.g., on individual projects. |
| Project Description | Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's October 29, 2013 PSEP Update Application for pipeline replacement and strength testing. |
| Mobilization Date | Anticipated project start date. |
| Tie-In Date | Anticipated project finish date. |
| Job Estimate Amount | Amount budgeted for project after completing project engineering, routing, permitting and construction bids. |
| Comments | Descriptions of changes to the project, including project additions, accelerations, delays, and cancellations. |

## 15. Project Costs > 10% Above Estimate

*For completed projects that are 10% or more over estimated costs, provide a detailed explanation why the overrun occurred.*

**Response**

As PG&E progressed from the preliminary work scope and associated estimates and work plans included in its Implementation Plan, it developed more specific work plans and estimates. These refined estimates, or "Job Estimates," are used in this report to represent the budgeted amount by project for a more meaningful comparison to total costs. Table 11-1 of the appendix referenced in the response to Question 11 includes four projects that have cost variances equal to or greater than 10 percent of this budgeted amount, on a project-by-project basis. Identification of the cost and schedule impacts that have driven these cost variances are included within the project-by-project risk analysis on Table 19-1 provided in response to Question 19.

In addition, in the response to Question 19, PG&E has summarized the primary cost drivers that have in many cases resulted in significantly higher total actual project costs than the budgeted amount.

## 16. Pipeline Piggability Status

*Provide a list and map of pipelines that are currently piggable, highlighting pipe that was made piggable as a result of projects conducted under the PSEP. Provide the total mileage of transmission pipelines, the total mileage of pipelines that are currently piggable and percentage of the total that is piggable.*

**Response**

As shown in Table 16-1 below, 204.06 miles of transmission pipeline (95.59 miles from Line 300A, 94.62 miles from Line 300B, 7.06 miles from Line 131 and 6.79 miles from Line 132) were made piggable under PSEP from program inception to March 31, 2014. This increase reflects the completion of one additional pipeline retrofit/upgrade projects during the current reporting period (Line 131 mile points (MP) 50.57-57.46).

**TABLE 16-1**
**PACIFIC GAS AND ELECTRIC COMPANY**
**SEGMENTS MADE PIGGABLE UNDER PSEP**

| Route ID | Launch Mile Point | Receiver Mile Point | Piggable Distance(a) |
|---|---|---|---|
| 131 | 50.57 | 57.46 | 7.06 |
| 132 | 31.93 | 38.40 | 6.79 |
| 300A | 299.00 | 353.80 | 56.24 |
| 300A | 354.19 | 393.53 | 39.35 |
| 300B | 299.00 | 353.80 | 54.84 |
| 300B | 354.09 | 393.61 | 39.78 |

(a) Piggable Distance is measured in PG&E's Geographic Information System (GIS) and does not necessarily equal the difference between launch mile point and receiver mile point.

Figure 16-1 shows PG&E's total piggable mileage by transmission pipeline. In total, there are 1,443.60 miles of piggable transmission pipeline (see Table 16-2) as of March 31, 2014, which amounts to 21.5 percent of PG&E's approximately 6,750 total transmission pipeline miles. Figure 16-2 provides a map of pipelines that are currently piggable, highlighting pipe that was made piggable as a result of projects conducted under the PSEP.

**FIGURE 16-1**
**PACIFIC GAS AND ELECTRIC COMPANY**
**PIGGABLE MILEAGE BY TRANSMISSION LINE**

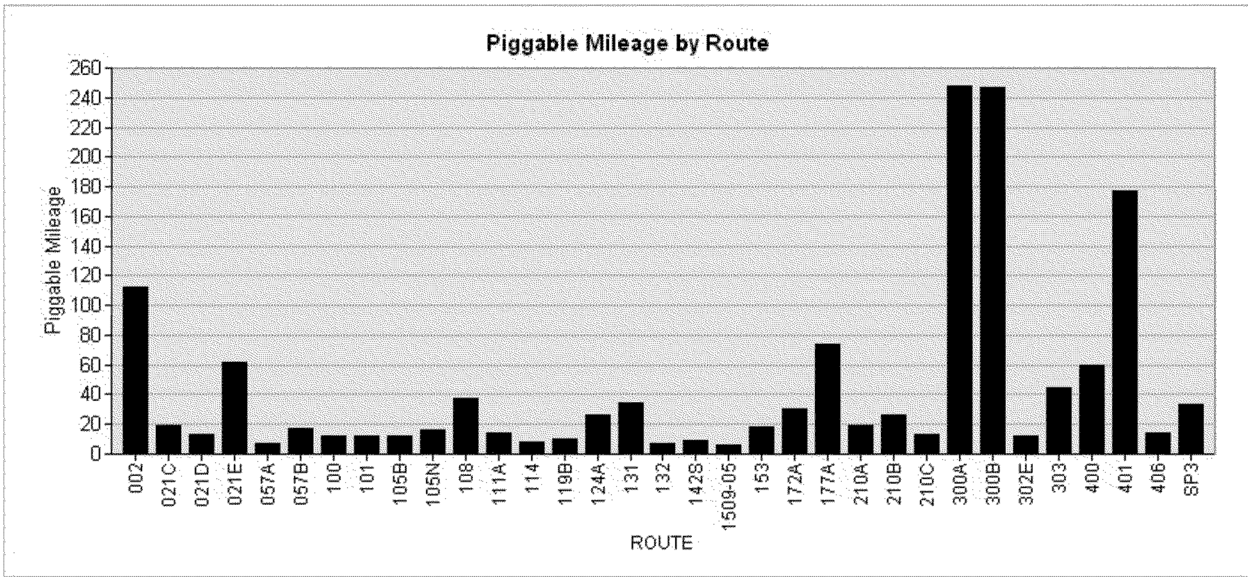




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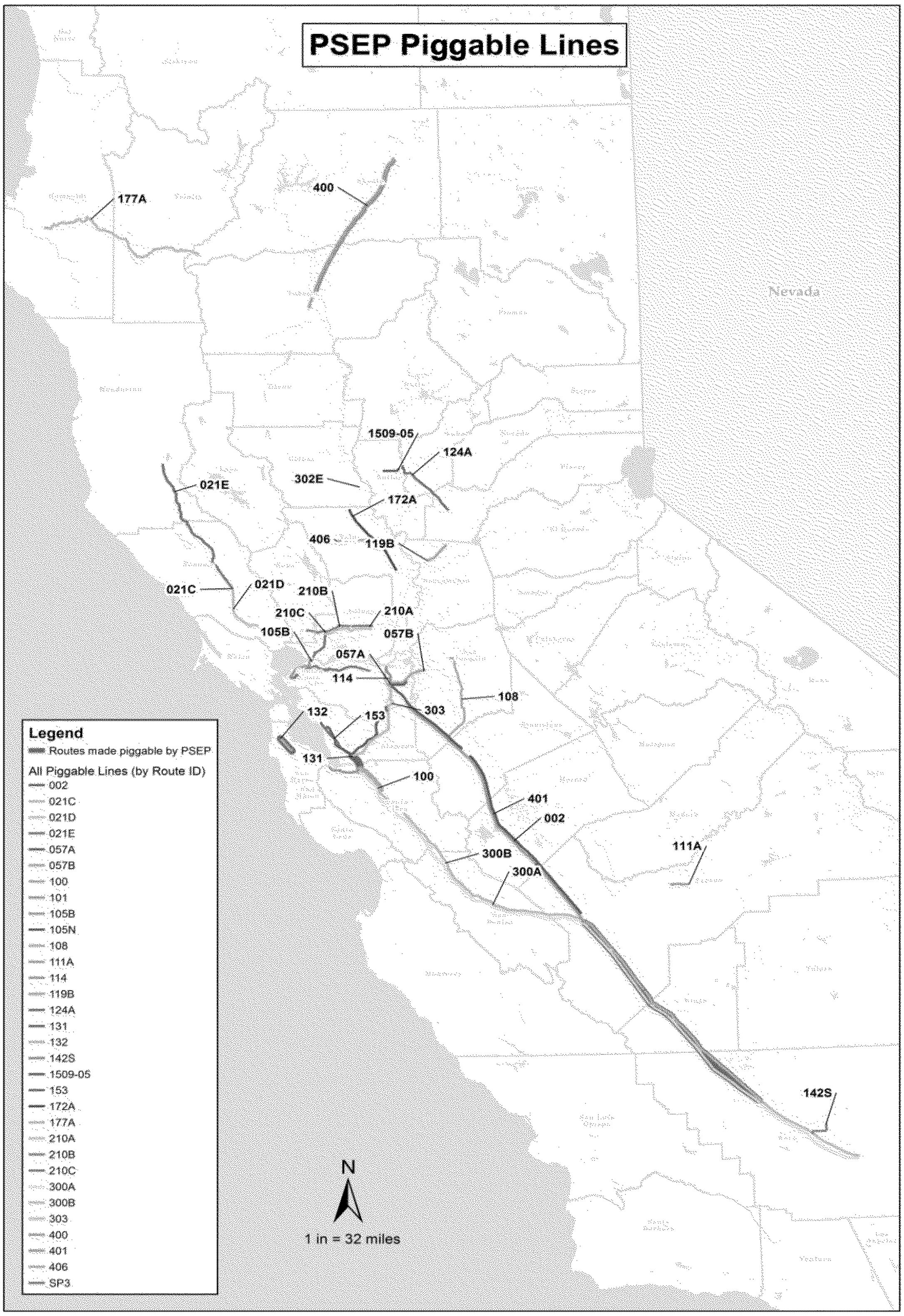
**TABLE 16-2**
**PACIFIC GAS AND ELECTRIC COMPANY**
**PIGGABLE TRANSMISSION PIPELINE SEGMENTS**

| Piggable Pipeline Segments | | | |
|---|---|---|---|
| Route | Launch Mile Point | Receiver Mile Point | Piggable Distance* |
| 002 | 43.45 | 118.02 | 75.28 |
| 002 | 122.06 | 158.00 | 36.39 |
| 021C | 35.05 | 53.12 | 18.67 |
| 021D | 18.64 | 31.81 | 13.30 |
| 021E | 64.54 | 93.67 | 30.77 |
| 021E | 53.12 | 64.36 | 11.39 |
| 021E | 93.67 | 114.89 | 20.20 |
| 057A | 9.49 | 16.68 | 7.09 |
| 057B | 0.00 | 16.68 | 16.62 |
| 100 | 138.46 | 150.13 | 12.10 |
| 101 | 0.00 | 11.92 | 12.36 |
| 105B | 0.02 | 11.81 | 11.81 |
| 105N | 7.76 | 22.87 | 16.13 |
| 108 | 0.03 | 37.15 | 37.02 |
| 111A | 20.32 | 27.58 | 7.26 |
| 114 | 9.03 | 16.59 | 8.02 |
| 119B | 0.02 | 10.16 | 10.40 |
| 124A | 0.00 | 26.03 | 26.42 |
| 131 | 24.89 | 50.55 | 26.61 |
| 131** | 50.57 | 57.46 | 7.06 |
| 132** | 31.93 | 38.40 | 6.79 |
| 142S | 0.02 | 8.98 | 8.97 |
| 1509-05 | 0.00 | 6.49 | 6.45 |
| 153 | 0.00 | 17.64 | 17.85 |
| 172A | 40.08 | 69.81 | 29.76 |
| 177A | 88.83 | 163.04 | 74.45 |
| 210A | 1.38 | 19.47 | 18.98 |
| 210B | 1.39 | 25.98 | 25.84 |
| 210C | 19.47 | 32.11 | 12.74 |
| 300A | 256.21 | 299.00 | 43.39 |
| 300A** | 299.00 | 353.80 | 56.24 |
| 300A** | 354.19 | 393.53 | 39.35 |
| 300A | 393.53 | 450.83 | 57.29 |
| 300A | 450.83 | 502.24 | 52.11 |
| 300B | 393.76 | 450.79 | 57.18 |
| 300B | 450.79 | 502.64 | 52.42 |
| 300B | 256.64 | 299.00 | 43.22 |
| 300B** | 354.09 | 393.61 | 39.78 |
| 300B** | 299.00 | 353.80 | 54.84 |
| 302E | 0.00 | 12.02 | 12.02 |
| 303 | 0.00 | 42.83 | 44.72 |
| 400 | 82.38 | 142.60 | 60.22 |
| 401 | 317.96 | 427.98 | 110.04 |
| 401 | 82.34 | 149.19 | 67.01 |
| 406 | 0.00 | 13.80 | 13.84 |
| SP3 | 167.31 | 198.49 | 33.19 |
| **Total** | | | **1443.60** |

* Piggable Distance is measured in GIS and does not necessarily equal the difference between launch mile point and receiver mile point.

** PSEP segment.

**FIGURE 16-2**
**PACIFIC GAS AND ELECTRIC COMPANY**
**MAP OF PIGGABLE PIPELINES**



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## 17. Lessons Learned in Phase 1 Work

*Describe any lessons learned from undertaking the Phase 1 work that has led to cost efficiencies and quantify any cost savings.*

**Response**

During the current reporting period, PG&E has continued to apply lessons learned and associated process improvements from prior reporting periods, including those previously reported in prior PSEP Compliance Reports. PSEP workstreams remain focused on completing planned work along with implementing cost reduction initiatives. As it is early in the year, and most of the 2014 projects have not begun construction, a majority of the planned cost savings have not yet been realized.

Identified below is a lesson learned and its associated cost savings during the current reporting period:

<u>Nitrogen Strength Test</u>: Strength testing using nitrogen—as opposed to water—is an approved testing medium and can be particularly cost effective due location, length of test, or pipe characteristics. Nitrogen testing was conducted on TS-025-14 (line DCUST1614) and saved approximately $150,000 which would otherwise have been spent on water tank staging, cleaning and filling procedures, water filtration and disposal, as well as additional traffic control and construction measures.

During the current reporting period, PSEP workstreams completed the compilation and assessment of cumulative lessons learned and identified potential additional process improvements for implementation within the 2014 project portfolio.

Leveraging our PSEP experience, listed below are additional examples of initiatives commenced during the first quarter, which if successful, may realize cost savings in 2014:

- Implementing consistent use of Ground Penetrating Radar.
- Broadening use of Shallow Horizontal Dimensional Drilling in urban areas.
- Expanding use of mixed-in-place Controlled Density Fill in lieu of importing fill for backfilling pipelines under pavement areas.
- Expanding use of foam pillows in lieu of sand bags for pipe bedding, reducing installation costs and injury risks.

## 18. Potential Enhancements to Phase 2 Planning and Budgeting

*How will the work PG&E conducts in Phase 1 influence how PG&E will plan and estimate the costs of its proposed projects for Phase 2?*

**Response**

Consistent with our response in prior PSEP Compliance Reports, the work PG&E conducts in Phase 1 will directly influence how PG&E will plan and estimate the costs of proposed future pipeline safety work. This is reflected in PG&E's 2015 Gas Transmission and Storage (GT&S) Rate Case Application (A.13-12-012), filed on December 19, 2013 for the period of 2015-2017. Beginning January 1, 2015, PG&E is not forecasting PSEP work separately from other GT&S work.

In PSEP, PG&E selected and prioritized the work using the PSEP Decision Trees approved by the Commission in D.12-12-030. The focus was on enhancing the pipeline integrity in segments that had not previously been subjected to a pressure test. The work was prioritized based on location of pipeline segments in High Consequence Areas (HCA) and Class 3 and 4 locations that were operating at a Specified Minimum Yield Strength of 30 percent or greater.

This served as a good foundation to manage the potential risk by pipeline segments that had not previously been subjected to pressure testing. As demonstrated in the mitigation plans set forth in PG&E's 2015 GT&S Rate Case, PG&E is moving towards a more holistic approach to prioritizing the management of risk arising from the threats to its transmission pipe assets.

PG&E has implemented changes as a result of lessons learned from PSEP work about how to better enhance the integrity of its natural gas transmission system using components of the plan, such as strength testing, pipeline replacement, valve automation, retrofitting to make pipeline segments capable of ILI, and running ILIs. We used the principles, valuable lessons learned and efficiencies gained during PSEP to develop the mitigation programs in the forecast reflected in A.13-12-012 for these work activities. As such, the cost forecasts in the GT&S Rate Case related to the PSEP workstreams noted above were influenced based on our experience and actual costs incurred to date in PSEP.

These lessons learned and the transition from PSEP to the current mitigation programs, are discussed in Chapter 4 of PG&E's GT&S Rate Case and reflected, as applicable, in the specific mitigation programs in Chapter 4A of PG&E's December 19, 2013 Prepared Testimony.[29]

29 PG&E 2015 Gas Transmission and Storage Rate Case (A.13-12-012) Prepared Testimony, Volume 1 of 2, Chapter 4: Asset Family – Transmission Pipe, Sections C2b and D; Chapter 4A: Transmission Pipe Integrity and Emergency Response Programs, Sections C and D.

## 19. Cost Impacts of Unexpected or Unforeseen Items

*What, if any, significant unexpected or unforeseen items did PG&E encounter in undertaking the projects and what were the resulting cost impacts on a project-by-project basis?*

**Response**

Table 19-1 of the appendix provides PG&E's most recent risk management assessment with a project-by-project analysis of unexpected or unforeseen items that have affected 2014 completed projects and the resulting cost and schedule impacts,[30] and identifies ways in which PG&E is addressing these risks on an ongoing basis by incorporating the lessons learned into project delivery processes.

For projects completed in the first quarter of 2014, PG&E identified that "Unstable/Weak Soil"[31] and "Changes After Issue for Bid" (IFB)[32] caused the greatest cost increases totaling approximately $3.77 million and $2.26million, respectively. "Permitting"[33] and "Clearance"[34] accounted for the greatest number of schedule day delays totaling 90 days and 88 days, respectively.

This report identifies the following main risk areas (with associated impacts) with recommendations:

- **Unstable/Weak Soil (Cost and Schedule)**
  - Results: While efforts are made to identify soil conditions and plan accordingly prior to construction start, it is difficult to fully determine the extent and precise area of unstable/weak soil. Only two projects, one in valve automation and one in pipeline replacement, experienced impacts

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30 Impacts are determined using baseline schedule and forecasts after completion of Job Estimate and prior to construction commencement.

31 Unstable soils may require additional shoring or other measures which may cause delays and an increase in costs to implement.

32 Any changes to the project scope that were excluded from or occurred after IFB (e.g., additional sniff holes, expanded excavation, added replacement/test length, etc.).

33 Unplanned permitting conditions, requirements and delays from various permitting agencies (e.g., limited working hours, limited access, delays in issuance, etc.).

34 Tight clearance windows may result in contractor working additional hours to meet the window for tie-in. Delays may also be experienced if a clearance window cannot be obtained when needed due to a variety of reasons. Also, additional labor and/or materials may be necessary to complete clearance.

related to weak soil. This resulted in cost increases and a schedule delay related to these efforts.

- Recommendations: Continue taking soil samples and using historical data to research and to identify areas where difficult soil conditions may be encountered. Also continue to include costs in the Job Estimate, when appropriate, for handling of such conditions.

- **Changes After IFB (Cost and Schedule)**
  - Results: The identification of the common causes of changes that affected projects completed thus far, as previously recommended within prior risk management analyses, continues to be used to inform planning activities for 2014 projects.
  - Recommendations: Continue monitoring of this risk within project risk registers along with earlier commencement of pre-construction activities in coordination with Construction Management and Alliance contractors.
- **Permitting (Cost and Schedule)**
  - Results: Delays and/or cost impacts on affected projects were due to a variety of permitting constraints (e.g., requirement of night work, extensive traffic control plans, etc.) Permitting delays primarily impacted pipe replacement projects.
  - Recommendations: Continue to apply for permits as early as possible, especially those known to have a long lead time, and maintain regular communications with permitting agencies in an attempt to limit impacts from constraints. PG&E's Government Relations and Environment teams are working proactively on aggregating permit requirements for those projects at risk of non-completion in 2014 and prioritizing them with applicable cities and environmental agencies.
- **Clearance (Cost and Schedule)**
  - Results: Due to the high volume of projects requiring clearance, the scheduling of clearances is planned very carefully in order to maintain customer service and utilize clearance crews as efficiently as possible. If a project misses its clearance window, rescheduling can prove difficult, especially during winter months when gas demand may be high. Two projects that were planned to be completed in 2013 missed their clearance windows which then made it difficult to schedule clearance

resources, as these clearance resources were already scheduled elsewhere. This further moved projects into cold weather months which ultimately pushed clearance to January 2014.

– Recommendations: Continue to focus on existing process improvement activities and the utilization of recently increased resources to better organize, schedule and execute clearances.

Ongoing tracking of these risks on individual project risk registers is conducted in an effort to enable project teams to better anticipate and reduce potential impacts.

Table 19-2 provides a reference for the specific data points requested in Question 19 to their corresponding column in Table 19-1 of the appendix. Additional data points are included for context in navigating the tables.

**TABLE 19-2**
**PACIFIC GAS AND ELECTRIC COMPANY**
**DATA POINT/TABLE 19-1 COLUMN REFERENCE**

| Column Name | Description |
|---|---|
| Line # | Reference number for this report. |
| New PSRS | New PSRS number resulting from project split or addition. |
| Project Description | Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's PSEP October 29, 2013 Update Application for pipeline replacement and strength testing. |
| Region | Region where line is located. |
| Risk | Categorization of risk factor affecting the project. |
| Description | Description of risk factor. |
| Cost Impact ($) | Impact of risk to project cost. |
| Schedule Impact (Days) | Impact of risk to schedule in number of days. |
| >10% Variance | Projects greater than 10 percent over Job Estimate. |
| Comments | Description of how risk factor materialized. |

**20. Program Amount Authorized and Spent**

*Provide a table showing the total amount authorized for recovery from ratepayers and the total amount spent by PG&E year-to-date shown by month and broken down activity (e.g., hydrotesting, pipe replacement).*

**Response**

Table 20-1, in the appendix, shows the total amount spent by PG&E in the current reporting period and YTD, shown by month and broken down by activity. Amounts authorized for customer recovery based on D.12-12-030 is provided at the program activity level, consistent with the presentation in Attachment E of D.12-12-030. PG&E also provides in Table 20-1, the amounts requested for recovery in the PSEP Update Application (A.13-10-017), at the program activity level, because the PSEP Update Application represents a reduced amount for recovery by ratepayers from the amounts approved in D.12-12-030.

## 21. Shareholder Costs Absorbed

*Provide a table showing the total amount of costs that shareholders will absorb year-to-date shown by month and broken down activity (e.g., hydrotesting, pipe replacement).*

**Response**

Table 20-1, included in response to Question 20, provides the total amount of costs that shareholders have absorbed in the current reporting period and YTD, shown by month and broken down by activity. Amounts funded by shareholders have been calculated using the amounts requested for recovery in the PSEP Update Application (A.13-10-017), at the program activity level, because the PSEP Update Application represents a reduced amount for recovery by ratepayers from the amounts approved in D.12-12-030.

From a financial reporting perspective, PG&E is required to record substantial increases to shareholders' loss when it is probable and estimable. Although the PSEP Update Application has not been authorized by the CPUC, PG&E does not believe it is probable that the costs will be recoverable in excess of amounts it has proposed therein. Therefore, the October 2013 Update Application has been used to determine the shareholder-funded portion of PSEP costs.

## 22. Forecast vs. Actual Mileage – Replacements

*Provide a table showing the total mileage of pipe PG&E forecast to replace in R.11-02-019 and the mileage PG&E has replaced year-to-date. Identify the location, Line #, milepost, Class of the pipe replaced. Indicate whether the pipe is located in a High Consequence Area.*

**Response**

As of March 31, 2014, PG&E has replaced over 105 miles of gas transmission pipeline as part of the PSEP program. Table 22-1 below provides the total pipeline miles PG&E forecast to replace in R.11-02-019 (i.e., PG&E's August 2011 Implementation Plan) and the total pipeline miles replaced from program inception through the end of this reporting period. Table 22-2 of the appendix provides detail on 17 projects completed (tied-in) in 2014 through the end of this reporting period, identifies the location, pipeline number, milepost, and class of the pipeline section replaced, and indicates whether the pipeline is located in a HCA on a project-by-project basis.

Table 22-3 provides a reference for the specific data points requested in Question 22 to their corresponding columns in Table 22-2 in the appendix. Additional data points are included for context in navigating the tables.

**TABLE 22-1**
**PACIFIC GAS AND ELECTRIC COMPANY**
**TOTAL PIPELINE MILES REPLACED – FORECAST AND ACTUAL**
**APRIL 1, 2011 – MARCH 31, 2014**

| Pipeline Replacement | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| **Forecast R.11-02-019** | 0.3 | 39.0 | 64.0 | 82.4 |
| | | | | |
| **Actual Replaced and Tied-in, retired or downrated(a)** | 0.3 | 40.0 | 64.0 | 0 |
| **Actual Installed Pending Tie-In** | | | | 1.1 |
| **Total Actual** | 0.3 | 40.0 | 64.0(b) | 1.1 |

(a) Mileage reflects pipeline lengths identified in August 26, 2011 PSEP filing and is subject to final engineering review of "as-built" drawings to validate segment-level completion of PSEP scope. Forecast may adjust in the future pending the outcome of PG&E's PSEP Update Application filed on October 29, 2013.

(b) PSEP-funded Pipeline Replacement in 2013 accounted for 57.0 miles. In addition, PG&E replaced 7.0 miles of non-PSEP funded Pipeline Replacement miles in 2013.

**TABLE 22-3**
**PACIFIC GAS AND ELECTRIC COMPANY**
**DATA POINT/TABLE 22-2 COLUMN REFERENCE**

| Column Name | Description |
|---|---|
| Line # | Reference number for this report. |
| PSEP Filing PSRS | PSRS number provided in workpapers supporting PG&E's August 26, 2011 filing. |
| New PSRS | PSRS number provided in workpapers supporting PG&E's PSEP Update Application for pipeline replacement or strength test projects commonly resulting from project split or addition. |
| Project Description | Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's October 29, 2013 PSEP Update Application for pipeline replacement and strength testing. |
| Miles Completed | Miles of pipeline replaced or tested. |
| Line | Pipeline identifier. |
| MP1 | Beginning project mile point. |
| MP2 | Ending project mile point. |
| City | Location of project. |
| HCA | Project includes a High Consequence Area. |
| Class Code | Class of pipeline included in project. |
| Clearance Date | Date pipe was cleared and work authorized to begin. |
| Tie-In Date | Date pipe became operational and project completed. |

## 23. Forecast vs. Actual Mileage – Strength Testing

*Provide a table showing the mileage of pipe PG&E forecast to hydrotest in R.11-02-019 and the mileage PG&E has tested year-to-date. Identify the location, Line #, milepost, Class of the pipe tested. Indicate whether the pipe is located in a High Consequence Area.*

**Response**

As of March 31, 2014, PG&E has completed strength testing on over 541 miles of gas transmission pipeline since the inception of the PSEP program, in addition to the validation of the records of approximately 136 miles of prior strength tests as meeting the "traceable, verifiable and complete" standard. Table 23-1 below, provides the total pipeline miles PG&E forecast to strength test in R.11-02-019 (PG&E's August 2011 Implementation Plan) and the total strength tested through the end of this reporting period. Table 23-2 of the appendix provides detail on two completed projects, identifies the location, pipeline number, milepost, and class of the pipe tested, and indicates whether the pipe is located in a HCA on a project-by-project basis.

Table 23-3 provides a reference for the specific data points requested in Question 23 to their corresponding columns in Table 23-2 in the appendix. Additional data points are included for context in navigating the tables.

**TABLE 23-1**
**PACIFIC GAS AND ELECTRIC COMPANY**
**TOTAL PIPELINE MILES STRENGTH TESTED – FORECAST AND ACTUAL**
**APRIL 1, 2011 – MARCH 31, 2014**

| Pipeline Strength Testing | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| **Forecast R.11-02-019** | 236.0 | 185.0 | 204.0 | 158.0 |
| **Actual Tested and Tied-in(a)(b)** | 163.6 | 176.2 | 198.8 | 2.0 |
| **Actual Records Validated(c)** | 50.9 | 27.8 | 39.7 | 17.1 |
| **Total Actual** | 214.5 | 204.0 | 238.5 | 19.1 |

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(a) Mileage reflects pipeline lengths identified in August 26, 2011 PSEP filing and is subject to final engineering review of "as-built" drawings to validate segment-level completion of PSEP scope. Forecast may adjust in the future pending the outcome of PG&E's PSEP Update Application filed on October 29, 2013.

(b) Includes 2.6 miles in 2011, 36.3 miles in 2012 and 12.2 miles in 2013 of segments for which costs will not be included within PSEP costs.

(c) Includes pipeline miles for which records of a prior strength test were validated as meeting the traceable, verifiable and complete records standard.

**TABLE 23-3**
**PACIFIC GAS AND ELECTRIC COMPANY**
**DATA POINT/TABLE 23-2 COLUMN REFERENCE**

| Column Name | Description |
|---|---|
| Line # | Reference number for this report. |
| PSEP Filing PSRS | PSRS number provided in workpapers supporting PG&E's August 26, 2011 filing. |
| New PSRS | PSRS number provided in workpapers supporting PG&E Update Application for pipeline replacement or strength test projects commonly resulting from project split or addition. |
| Project Description | Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's October 29, 2013 Update Application for pipeline replacement and strength testing. |
| Miles Completed | Miles of pipeline replaced or tested. |
| Line | Pipeline identifier. |
| MP1 | Beginning project mile point. |
| MP2 | Ending project mile point. |
| City | Location of project. |
| HCA | Project includes a High Consequence Area. |
| Class Code | Class of pipeline included in project. |
| Clearance Date | Date pipe was cleared and work authorized to begin. |
| Tie-In Date | Date pipe became operational and project completed. |

## 24. Public Outreach Costs

*Provide the costs of the public outreach PG&E has incurred year-to-date by month as compared to the amount authorized. Explain in detail what public outreach activities PG&E has engaged in.*

**Response**

Customer Outreach is included as an integral part of each PSEP construction project. Customer and community outreach costs incurred since program inception in 2011 are shown annually for 2011-2014 in Table 24-1. Monthly customer and community outreach costs for 2014 are shown in Table 24-2.

**TABLE 24-1**
**PACIFIC GAS AND ELECTRIC COMPANY**
**PUBLIC OUTREACH COSTS**
**APRIL 1, 2011 – MARCH 31, 2014**
**(IN MILLIONS OF DOLLARS)**

| 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|
| $2.62 | $4.54 | $4.21 | $0.78 |

**TABLE 24-2**
**PACIFIC GAS AND ELECTRIC COMPANY**
**2014 MONTHLY PUBLIC OUTREACH COSTS**
**(IN MILLIONS OF DOLLARS)**

| Jan 2014 | Feb 2014 | Mar 2014 |
|---|---|---|
| $0.17 | $0.24 | $0.37 |

The CPUC's PSEP decision approved customer outreach costs, including governmental outreach, within individual project estimated costs. PG&E's estimated customer outreach costs varied by workstream driven by the nature of the work and were based upon a percentage of project costs before project management and escalation.

For pipeline replacement and strength testing projects the customer outreach cost estimate was 2.9 percent of estimated construction costs, and for valve automation projects the equivalent was 0.54 percent. Specific monthly authorized amounts cannot be accurately determined from D.12-12-030 due to individual project durations and the timing of activities within projects. Public outreach activities undertaken by PSEP have included the use of Interactive Voice

Responses (IVR or automated phone notifications), letters, open houses, signage, door-to-door canvassing, one-on-one customer phone calls and meetings, and customer group presentations. As of March 31, 2014, six open houses have been hosted, 41,582 letters have been mailed, and 46,374 IVR calls have been made to customers impacted by PSEP work during 2014.

Customer Outreach activities are managed on a consistent basis across PSEP workstreams by a dedicated team of Customer Impact Specialists within PG&E's Customer Care organization. Each project follows a standardized process for customer outreach which includes, but is not limited to:

- Site walk with project team to identify customer impacts.
- Letter to impacted customers.
- Invitation to an open house hosted by PG&E within the affected project area.
- Work location signage prior to mobilization.
- IVR sent to area customers prior to significant activities (e.g., venting/release of natural gas).
- Additional customer outreach and accommodations as dictated by the nature of the project (e.g., temporary relocation for nitrogen strength test).
- Local customer canvassing to identify and incorporate feedback into ongoing procedures.

In an effort to increase open house attendance, the Customer Outreach team sent out an IVR reminder and/or canvassed an impacted area, inviting customers to attend the open house in their area. The IVR reminded customers of the date, time, and location of the open house. Canvassing visits involved leaving behind door hangers that included copies of the letter with an open house invitation that these customers had already received. During the current reporting period, the Customer Impact team has continued to utilize IVRs to remind customers of the date, time, and location of a local open house, along with canvassing visits leaving behind door hangers that include copies of the open house invitation which has resulted in a moderate increase in open house attendance, from an average of eight to nine attendees per open house.

Customer Impact inserts additional customer touch points where deemed beneficial, depending on the particular situation. During the current reporting period, Customer Impact held a multi-project open house on March 24, 2014 for strength tests T-332A, T-332B, T-335, and T-368 in Yuba City. These projects run through both residential and large agricultural areas, where the risk of customer outages creates the potential for significant negative impacts on agricultural harvests if project timelines are not met. To mitigate this risk Customer Impact and Energy Solutions and Service teams have met with the local agricultural customers to identify peak load periods during the harvest season and have worked with operations teams to adjust construction schedules to meet the gas demands of the affected customers. On March 3, 2014 customers were sent a project notification letter, informing them of the projects' scope and duration, and inviting them to attend the informational open house. In order to provide answers and solutions to issues customers may experience related to the projects, strength test subject matter experts were in attendance. Energy Solutions and Service representatives were also in attendance to provide energy efficiency information to commercial and residential customers. In addition, Customer Impact and Energy Solutions and Service representatives have set up weekly status update communications with these large agricultural customers to monitor for and address any actual impacts on agricultural operations.

As noted above, as part of project design and planning activities, PG&E identifies and reviews specific customer impacts. Where customer loads are significant, PG&E will work with assigned account representatives to schedule activities to minimize the impact to customers. This may involve scheduling tests outside of agricultural peak periods as well as scheduling project activities to occur outside of school hours or other key events.

## 25. Service Outage Performance

*Describe (e.g., provide date(s), location, Line #) all planned and unplanned service outages PG&E experienced in conducting the project work and explain how PG&E addressed customer needs during the outages. Were customers notified of any outages beforehand?*

**Response**

PG&E has successfully conducted gas transmission pipeline outages supporting 24 completed construction projects in 2014, with minimal impact to customer service. Tables 22-2 and 23-2 provide pipeline clearance dates, tie-in dates,[35] locations, and pipeline numbers, on a project-by-project basis for 17 completed pipe replacements and two strength test projects.

Table 25-1 of the appendix supplements these tables by providing information for five completed valve automation, ILI upgrade, and ILI projects in 2014. Table 25-2 provides a reference for the specific data points requested in Question 25 to their corresponding column in Table 25-1 in the appendix. Additional data points are included for context in navigating the tables.

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35 The days between the clearance date and the tie-in date provides the number of pipeline outage days.

**TABLE 25-2**
**PACIFIC GAS AND ELECTRIC COMPANY**
**DATA POINT/TABLE 25-1 COLUMN REFERENCE**

| Column Name | Description |
|---|---|
| Line # | Reference number for this report. |
| PSEP Filing PSRS | PSRS number provided in workpapers supporting PG&E's August 26, 2011 filing. |
| New PSRS | PSRS number provided in workpapers supporting PG&E's PSEP Update Application for pipeline replacement or strength test projects commonly resulting from project split or addition. |
| Project Description | Order Description provided in workpapers supporting PG&E's August 26, 2011 filing for valve automation, ILI, and upgrades for ILI. Order Description provided in workpapers supporting PG&E's October 29, 2013 PSEP Update Application for pipeline replacement and strength testing. |
| Miles Completed/Valves Automated | Miles of pipeline replaced or tested; Number of valves automated. |
| Line | Pipeline identifier. |
| MP1 | Beginning project mile point. |
| MP2 | Ending project mile point. |
| City | Location of project. |
| HCA | Project includes a High Consequence Area. |
| Class Code | Class of pipeline included in project. |
| Clearance Date | Date pipe was cleared and work authorized to begin. |
| Tie-in Date(a) | For ILI and pipeline testing and replacement projects, the tie-in date is the date the pipe became operational and the project was completed.<br>For valve automation projects, the tie-in date is the date the date the pipeline is "commissioned" (released to gas control). |

(a) The definition differs slightly from Table 25-2 in PG&E's PSEP Compliance Report No. 2013-01 for 2011-2012 valve automation projects.

As previously mentioned, initial project design and planning activities include identification of potential customer impacts. PG&E specifically works to minimize the impact to customers and schedules work where possible to avoid customer outages by using existing system redundancies (e.g., cross compression, parallel pipes, or back-feeds to maintain customer service). This is a primary reason why many construction activities cannot take place during seasonal winter gas demand periods.

To mitigate potential customer impact, PG&E increased its LNG/CNG portable program to enable the increased avoidance of customer outages. Rising from 22 units in 2010 to 202 units targeted in 2014, the program continues to be an integral part of project planning and scheduling activities and has successfully met the significantly increasing demand for its services. The program has supported 151 customer tap days in first quarter of 2014 using portable CNG and LNG equipment.

In cases where customer loads are significant, PG&E has worked with assigned account representatives to schedule activities to minimize impact and potentially avoid the significant costs associated with LNG support operations. This has involved scheduling tests outside of agricultural peak periods and commercial work hours and scheduling project activities to occur outside of school hours or key events. For example, during the current reporting period, work schedule for strength test T-379 in San Rafael was postponed due to customer's request. Customer advised PG&E's that the test would negatively impact prescheduled renovation work that was to take place in the potential laydown area. As a result, PG&E agreed to push out its mobilization date to future months to accommodate the customer's request.

## 26. Forecast Projects Not Completed or Replaced

*Describe or provide a specific reference to PG&E's work papers of the projects that were not completed or replaced by a higher priority project and show the uncompleted project's associated costs. Compute the corresponding reduction to the Implementation Plan adopted amounts set out in Attachment E, as required by Ordering Paragraph 6.*

**Response**

PG&E's PSEP Update Application presents all pipeline replacement and strength testing projects that were not completed or have been cancelled and provides updated costs estimates of all previously authorized and proposed PSEP projects. PG&E's PSEP Update Application shows the corresponding reductions and additions to pipeline replacement and strength testing amounts set out in Attachment E, as required by OP 6.

Table 26-1 of the appendix includes a list of previously planned 2014 projects, with specific reference to prior PG&E work papers, which were not completed or replaced by a higher priority project in this reporting period.[36]

**TABLE 26-2**
**PACIFIC GAS AND ELECTRIC COMPANY**
**DATA POINT/TABLE 26-1 COLUMN REFERENCE**

| Column Name | Description |
|---|---|
| Line # | Reference number for this report. |
| PSEP Filing PSRS | PSRS number provided in workpapers from proceedings. |
| New PSRS | New PSRS number resulting from project split or addition. |
| Project Description | Order Description provided in workpapers from proceedings. |
| PSEP Filing Year | Year project anticipated to begin as stated in the filing. |
| Current Status | Current project status. |
| Comments | High-level descriptions for projects that were not completed or replaced. |

36 For similar project data related to 2011 and 2012 projects refer to PSEP Compliance Report No. 2013-01.

27. **Project Cost Recovery**

*Provide a clear explanation, for each project for which expenditures have been incurred, of how the project is necessary to comply with PSEP requirements rather than being included among projects that are already funded in D.11-04-031.*

**Response**

The scope of PG&E's PSEP is based upon pipeline segments previously identified as not having been strength tested, and/or without traceable, verifiable and complete records of such a test. The specific actions to be taken under PSEP, and the prioritization of such projects, are based upon the results of consistently applying a sequential decision process (PSEP Decision Tree) to pipeline segment features information. PG&E's original PSEP scope was based upon pipeline data as of January 2011 and PG&E anticipated that the update and completion of the review of pipeline segment information would alter the scope of PSEP's projects. During the PSEP proceeding, PG&E confirmed that the PSEP scope as filed excluded any pipeline segments previously included within other recovery mechanisms, including projects approved as part of the Gas Accord V Settlement in D.11-04-031.

To the extent that additional scope has been added to a PSEP project that does not meet the PSEP Decision Tree criteria (or it is a non-adjacent non-HCA, Class 1 or 2 pipe segments) PG&E has identified and is separately tracking costs associated with this increased project scope. Examples would include, an increase in pipeline diameter to support future capacity needs or a project identified in D.11-04-031 that is engineered, permitted and constructed with an adjacent PSEP project to capture efficiencies.

PG&E's August 26, 2011 PSEP filing, Workpapers Supporting Chapter 3, Gas Transmission Pipeline Modernization Update, and Chapter 4, Valve Automation Program provides descriptions of all planned PSEP ILI and valve projects that have been and will be performed in compliance with D.11-06-017, including the associated segment-level Decision Tree outcome identifier where applicable. PG&E's October 29, 2013 PSEP Update Application, Workpapers Supporting Chapter 2, Gas Transmission Pipeline Modernization Program Update provides descriptions of all planned PSEP pipeline replacement and strength test projects which have been and will be performed in compliance with D.11-06-017, including the associated segment-level Decision Tree outcome identifier.

## 28. Record Improvement Efforts Progress

*Progress report on record improvement efforts, including report on costs absorbed by shareholders.*

**Response**

PG&E's Mariner Project (formerly referred to as the "GTAM Project"), is part of the Pipeline Records Integration Program proposed in the PSEP filing (R.11-02-019). Mariner costs are included in Table 20-1 and are completely funded by shareholders in compliance with D.12-12-030. The goal of the Mariner Project is to further enhance the safety and reliability of PG&E's gas transmission system through increased access to pipeline systems data, integrated risk management and integrity management analytics, and improved work management. Specifically, the Mariner Project will:

- Improve data availability by eliminating paper-based work processes and installing tools to enable the electronic collection, processing, review, analysis, and integration of pipeline systems data.
- Improve PG&E's pipeline risk management capabilities by integrating different types of asset data into a single system.
- Support PG&E's PSEP and address the CPUC and National Transportation Safety Board concerns by enabling and supporting asset data that are traceable, verifiable and complete.
- Generate operational efficiencies related to the time required to: (1) enter and upload data into the system; (2) locate and collect information maintained in different offices and different records management systems; and (3) correlate and analyze engineering data, and associated with field force dispatch (as work assignments can be automated and optimized to minimize travel). Full realization of benefits is dependent on the integration of the various components of the Mariner Project.

The Mariner project made progress in several functional areas by providing new mobile devices to field personnel, replacing outdated hardware, providing access to electronic maps, deploying integrated risk management tools, and converting records into electronic formats. The Mariner Project is also progressing toward integrating work management and asset systems, and mobilizing corrective and preventative maintenance processes.

In PG&E's August 26, 2011 prepared testimony, PG&E described four phases of project development.[37] This report lists the activities that were included in each phase and provides a summary of the activities completed as of March 31, 2014. During October and November 2013, PG&E evaluated the Mariner Project and modified some of its management structure. Most of these changes involve modifying the management structure of the various Mariner initiatives, combining smaller projects into larger initiatives for improved oversight, and revising the schedule of some of the project components. In particular, the completion date for some of the asset maintenance and material traceability work has been extended from the first quarter of 2015 to the second half of 2015.

The following section details work and progress to date by each functional area affected by the Mariner Project in the current reporting period. Please see PSEP Compliance Reports Nos. 2013-02, 2013-03 and 2013-04 for progress made by each functional area prior to this reporting period.

[37] Please refer to PSEP Compliance Report No. 2013-02 for a description of the Mariner Project's four phases.

| Functional Area | Work Completed in Q1 (January 1 – March 31, 2014) | Mariner Project Phases |
|---|---|---|
| Leak Survey | Work within this functional area is now complete.(a) | Phases 0 and 1 |
| Locate and Mark | Work within this functional area is now complete.(b) | Phase 0 |
| Corrective Maintenance | **<u>Project Description</u>**<br>This effort provides for an accurate and complete dataset of information recorded in the Integrated Gas Information System (IGIS) and other corrective maintenance history to be included in SAP.<br>**<u>Progress and Accomplishments</u>**<br>• Completed pilot for gradable leaks and other corrective work for Local Transmission and Distribution assets, in the Peninsula and Stockton divisions, in March 2014.<br>• Plan to start phased deployment for Local Transmission and Distribution assets in all other divisions in May 2014.<br>• Gathering business and technical requirements to migrate backbone and station assets from various systems to SAP and to automate and digitize corrective maintenance on these assets using SAP and mobile technology. | Phases 0 and 1 |
| Records Management | Work continues within this functional area. No major milestones reached within this reporting period. | Phase 1 |
| Mobile Technology Foundation | Work within this functional area is now complete.(c) | Phase 2 |
| Preventive Maintenance | **<u>Project Description</u>**<br>Paperless process for documenting preventative maintenance work performed in the field<br>**<u>Progress and Accomplishments</u>**<br>• Completed pilot for Preventive Maintenance mobile application for Local Transmission and Distribution assets in the Peninsula and Stockton divisions in March 2014.<br>• Planning to start phased deployment for Local Transmission and Distribution assets in all other divisions in May 2014.<br>• Gathering business and technical requirements to migrate backbone and station assets from various systems to SAP and to automate and digitize preventive maintenance on these assets using SAP and mobile technology. | Phase 2 |
| GIS | **<u>Project Description</u>**<br>Deployment of new Gas Transmission (GT) GIS system using data from the MAOP project that uses Linear Asset Management and is integrated with SAP.<br>**<u>Progress and Accomplishments</u>**<br>• Started validating asset data from multiple sources: the Pipeline Open Data Standard (PODS) database, Pipeline Centerline Survey, and Spatial Alignment) to be included in GT GIS.<br>• Developed plan to retire GasMap 2.0.<br>• Gathered business and technical requirements to integrate Intrepid asset management solution, SAP-Linear Asset Management, SAP-GEO and Documentum.<br>• Currently designing solution for GT GIS system integration and data conversion. | Phases 1, 2 and 3 |

| Functional Area | Work Completed in Q1 (January 1 – March 31, 2014) | Mariner Project Phases |
|---|---|---|
| Integrity Management | **Project Description**<br>Implement industry standard "best practice" technology solutions to automate manual integrity analysis tasks and integrate tools with core enterprise systems<br>**Progress and Accomplishments**<br>• Launched class location, HCA and risk analysis tools<br>• Currently repointing tools to use certified GIS data | Phase 1 |
| Material Traceability | Work within this functional area has been pushed into late 2014 and planned for completion in late 2015. | Phases 0 and 1 |

(a) Major milestones were completed in Quarter 2 of 2013. Please refer to PSEP Compliance Report No. 2013-02 for additional details.

(b) Major milestones were completed in Quarter 2 of 2013. Please refer to PSEP Compliance Report No. 2013-02 for additional details.

(c) Major milestones were completed in Quarter 2 of 2013. Please refer to PSEP Compliance Report No. 2013-02 for additional details.

## 29. Additional Relevant Information

*Any additional relevant information not listed above as specified in hearing Exh. 2 at 8E-1 and 8E-2.*

**Response**

PG&E considers that the information provided within this report covers all aspects previously outlined in *hearing Exh. 2 at 8E-1 and 8E-2.*

**PACIFIC GAS AND ELEC TRIC COMPANY**

**APPENDIX**

TABLE 1-1
PACIFIC GAS AND ELECTRIC COMPANY
PROJECT STATUS SUMMARY - PROJECTS AT RISK OF NON-COMPLETION IN 2014
REPORTING PERIOD JANUARY 1, 2014 – MARCH 31, 2014

| Line # | PSEP Filing PSRS | New PSRS | Project Description | City | Mobilization Date | Tie-in Date | Job Miles at Risk | Drivers for Potential Project Delays |
|---|---|---|---|---|---|---|---|---|
| 1 | 23632 | 23632 | V-041 Valve Auto - Foley's Ranch Crossover, 6V, Ph. 1 (R-304) | Livermore | 7/7/2014 | 1/9/2015 | 6 valves | Land issue on pipe replacement project |
| 2 | 24026 | 24026 | I-062 L-132 MP 31.7-38.4 ILI & Analysis PH-1 | Burlingame | 10/14/2014 | 12/10/2014 | 6.70 | Pressure restoration issue on L-132 |
| 3 | 23692 | 26023 | R-046 L-109_4A_1 REPL 2.35MI MP 24.84-27.26 PH1 | West Sacramento | 7/1/2014 | 11/13/2014 | 1.90 | Env. Permit: USACE, USFWS, RWQCB, CDFW permits required, CEQA: IS/MND |
| 4 | 23692 | 26025 | R-048 L-109_4C REPL 1.26MI MP 30.52-31.76 PH1 | Hillsborough | 5/2/2014 | 8/3/2014 | 1.26 | Env. Permit: CDFW CEQA Concurrence and SF Planning Categorical Exemption Land: SFPUC Easements Required (permanent and temporary) |
| 5 | 24052 | 26049 | R-060 L-021D REPL 2.65MI MP 19.27-24.49 PH1 | Petaluma | 8/11/2014 | 10/2/2014 | 2.65 | Land: City and Airport property easements required (Project is avoiding wetlands, however, if there is any change to impact a wetland, additional permitting could be required). City Encroachment: Petaluma |
| 6 | 23704 | 26516 | R-031 L-109_3B_1 REPL 1.29MI MP 18.61-19.71 PH1 | Woodside | 6/9/2014 | 10/15/2014 | 1.29 | Env. Permits: CDFW 1600 permit for riparian vegetation removal, USFWS technical assistance for CRLF; CEQA exempt Land: Golf Course & Woodside LLC easements required, Caltrans Permit |
| 7 | 23704 | 27018 | R-052 L-109_3C REPL 0.79 MI MP 23.30-24.00 PH1 | Redwood City | 10/18/2014 | 2/24/2015 | 0.79 | Land: Easement issue |
| 8 | 23796 | 29631 | R-205 L-021C REPL 0.55MI MP 31.85-32.39 PH1 | Petaluma | 6/6/2014 | 7/29/2014 | 0.55 | Land: State Lands Easement Required & Golf Course |
| 9 | 23796 | 29633 | R-153 L-021C REPL 0.19MI MP 34.84-35.04 PH1 | Petaluma | 5/19/2014 | 7/28/2014 | 0.19 | City Encroachment: Petaluma |
| 10 | 24052 | 29743 | R-158 L-021D REPL 0.62MI MP 18.65-19.27 PH1 | Petaluma | 6/6/2014 | 7/29/2014 | 0.62 | Land: State Lands Easement Required & Golf Course |
| 11 | 23704 | 30589 | R-166 L-109_3B_2 REPL 1.64MI MP 20.38-22.20 PH1 | Woodside | 6/21/2014 | 10/15/2014 | 0.82 | Env. Permits: None required (1600 no longer needed due to access) Land: Town of Woodside easement required, Caltrans encroachment |
| 12 | 23822 | 30616 | R-167 L-123 REPL 1.83MI MP 4.35-13.74 PH1 | Roseville | 6/17/2014 | 10/15/2014 | 0.67 | Land: Various private property Env. Permits: CDFW, USACE, RWQCB, USFWS & IS/MND (CDFW Lead) (Large vernal pool avoided) |
| 13 | 23692 | 30667 | R-185 L-109_4A_2 REPL 1.04MI MP 28.60-29.60 PH1 | San Mateo | 7/14/2014 | 10/29/2014 | 1.04 | Environment Permit: F&G CEQA/SFPUC exemption for temporary land use, HDD method of construction employed to avoid environmental permits. Land: SFPUC Easements Required (permanent and temporary) |
| 14 | 23867 | 31042 | R-188 L-220 REPL 0.52MI MP 19.37-19.92 PH1 | Davis | 8/28/2014 | 9/25/2014 | 0.52 | Land: UC Davis easement required, and UC Davis is requesting extremely high levels of indemnification, and are resisting negotiations |
| 15 | N/A | 32307 | R-240 L-109_4A_3 REPL 0.51MI MP 29.60-31.11 PH1 | San Mateo | 7/16/2014 | 11/10/2014 | 0.51 | Env. Permits: Assuming HDD method of construction: CDFW, RWQCB, NMFS, USFWS, CEQA Cat Ex Land: SFPUC Easements, Caltrans longitudinal encroachment |

TABLE 11-1
PACIFIC GAS AND ELECTRIC COMPANY
PROJECT STATUS SUMMARY - PROJECTS COMPLETED
JANUARY 1, 2014 – MARCH 31, 2014

| Line # | PSEP Filing PSRS | New PSRS | Order Number | Project Description | City | Construction Contractor | Mobilization Date | Tie-in Date | Job Estimate Amount | Total Cost | Labor Cost | Materials Cost | Contracts Cost | Other Cost | Variance to Budget | PSEP Disallowed Cost | Non-PSEP costs | >10% Over Budget | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 23597 | 23597 | 30842274 | V-010 Valve Auto - Commercial Way, 3V, Ph. 1 | San Carlos | Underground | 4/17/2013 | 1/24/2014 | $ 4,628,306.00 | $ 4,917,858.96 | $ 624,585.24 | $ 967,824.80 | $ 5,203,285.98 | $ (1,877,837.06) | $ 289,552.96 | $ - | $ - | No | Delayed from 2012 to 2014, due to other clearances taking priority on S.F. peninsula. |
| 2 | 24009 | 24009 | 30847124 | I-001 L-131 MP 50.5-57.4 UPGRADE PH-1 | Fremont | GT/GC | 2/14/2013 | 1/15/2014 | $ 5,284,783.00 | $ 9,767,141.91 | $ 2,888,571.76 | $ 1,653,682.93 | $ 3,764,099.43 | $ 1,460,787.79 | $ 4,482,358.91 | $ - | $ - | Yes | Delayed from 2012 to 2013 due to workspace limitations at Milpitas Station and resource constraints across PSEP work. |
| 3 | 24027 | 24027 | 41476259 | I-060 L-101(S) MP 0.00-11.62 ILI & Analysis PH1 | Milpitas | GT/GC | 2/6/2014 | 3/1/2014 | $ 1,436,567.00 | $ 1,555,423.29 | $ 814,334.82 | $ 52,869.52 | $ 622,223.91 | $ 65,995.04 | $ 118,856.29 | $ - | $ - | No | |
| 4 | 23867 | 26041 | 30842240 | R-056 L-220 REPL 4.93 MI MP 20.84-31.65 PH1 | Davis | Barnard | 7/22/2013 | 1/10/2014 | $ 37,500,000.00 | $ 34,801,233.16 | $ 1,787,061.38 | $ 1,146,682.29 | $ 29,432,280.25 | $ 2,469,254.76 | $ (2,698,766.84) | $ 34,045.52 | $ - | No | Delayed from 2013 to 2014 due to mitigate Constructability/Efficiency issues. |
| 5 | 23926 | 29247 | 30842229 | R-037 L-172A REPL 3.06MI MP 75.43-78.53 PH1 | West Sacramento | Barnard | 8/19/2013 | 1/31/2014 | $ 40,600,000.00 | $ 38,573,640.90 | $ 1,324,777.59 | $ 1,689,514.11 | $ 35,720,016.68 | $ 1,618,277.43 | $ (2,026,359.10) | $ 1,778,944.91 | $ - | No | Added as new replacement project as a result of data validation. |
| 6 | 24272 | 29275 | 30965594 | R-157 DFM-1603-01 REPL 1.42MI MP 0.07-1.30 PH1 | Lathrop | GT/GC | 9/17/2013 | 3/14/2014 | $ 5,817,458.00 | $ 6,059,233.53 | $ 3,055,020.00 | $ 565,980.75 | $ 2,800,710.48 | $ 1,020,348.24 | $ 241,775.53 | $ 1,382,825.94 | $ - | No | Project was moved from test to replace due to LNG/CNG cost to support high volume customers the total cost of testing DFM 1603-01 was estimated to be higher than the replacement cost of the pipeline. The beyond 2014 and tested pipe segments were added to the replacement project due to their proximity to the pipeline segments to be replaced (surrounded by pipe segments requiring phase 1 action) and their short length. |
| 7 | N/A | 30094 | 30984493 | V-068A Valve Auto - Airport & Louise, 3V, Ph. 1 | Manteca | Snelson | 10/1/2013 | 1/27/2014 | $ 2,536,322.00 | $ 2,683,505.04 | $ 497,227.48 | $ 339,802.85 | $ 1,706,603.58 | $ 139,871.13 | $ 147,183.04 | $ - | $ - | No | Added to replace filed Valve Auto project Airport & Yosemite (PSRS 23664) for cost and efficiency reasons due to construction complexities at the filed project site. |
| 8 | 24202 | 30907 | 41921650 | T-300-14, Line L-2, Los Banos | Los Banos | Snelson | 2/11/2014 | 3/11/2014 | $ 2,768,785.31 | $ 2,258,115.35 | $ 287,234.52 | $ 87,773.23 | $ 1,807,876.58 | $ 75,231.02 | $ (510,669.96) | $ 2,258,115.35 | $ - | No | Replaced original filed project by splitting into two Tests for constructability and efficiency: L-002 TEST 0.56MI MP 75.90-78.79 PH1 (PSRS 30907) and L-002 TEST 4.10MI MP 118.10-122.12 PH1 (PSRS 30908) |
| 9 | 23539 | 31771 | 41954808 | T-215-13, Line L-400, Antioch | Oakley | ARB | 2/18/2014 | 3/26/2014 | $ 2,840,226.63 | $ 2,608,302.96 | $ 552,851.24 | $ 146,132.66 | $ 1,855,197.57 | $ 54,121.49 | $ (231,923.67) | $ 2,608,302.96 | $ - | No | Delayed from 2013 to 2014 due to design complexities related to the building of a bypass to support power plants on this line during clearance. |
| 10 | 23789 | 31822 | 41961402 | R-207 L-177A REPL 0.01MI MP 26.55-26.55 PH1 | Corning | GT/GC | 3/10/2014 | 3/20/2014 | $ 498,428.00 | $ 308,085.01 | $ 360,835.14 | $ 10,133.14 | $ 8,653.87 | $ 20,507.48 | $ (190,342.99) | $ 92,044.62 | $ - | No | Cancelled PSRS 23789 due to records verified. Remaining portion transferred to new expense replacement project. |
| 11 | 23750 | 31951 | 31032381 | RT-004 DREG5148-CC REPL PH1 | Santa Cruz | GT/GC | 3/17/2014 | 3/27/2014 | $ 472,289.00 | $ 361,622.69 | $ 267,692.56 | $ 57,306.24 | $ 114.18 | $ 36,509.71 | $ (110,666.31) | $ - | $ - | No | Project addresses partial scope of originally filed TAPS project. |
| 12 | 23749 | 31969 | 31031728 | RT-021 DREG4872-MI REPL PH1 | San Lorenzo | GT/GC | 3/7/2014 | 3/14/2014 | $ 399,361.00 | $ 185,181.26 | $ 158,095.42 | $ 2,051.50 | $ 617.84 | $ 24,416.50 | $ (214,179.74) | $ - | $ - | No | Project addresses partial scope of originally filed TAPS project. |
| 13 | 23749 | 31970 | 31031729 | RT-022 DREG4873-MI REPL PH1 | San Leandro | GT/GC | 1/15/2014 | 1/24/2014 | $ 314,124.00 | $ 212,463.44 | $ 158,727.63 | $ 8,086.91 | $ 20,472.69 | $ 25,176.21 | $ (101,660.56) | $ - | $ - | No | Project addresses partial scope of originally filed TAPS project. |
| 14 | 23749 | 31971 | 31031731 | RT-023 GCUST5901-MI REPL PH1 | San Leandro | GT/GC | 2/24/2014 | 3/5/2014 | $ 221,778.00 | $ 276,338.94 | $ 220,514.90 | $ 12,448.89 | $ 11,971.86 | $ 31,403.29 | $ 54,560.94 | $ - | $ - | Yes | Project addresses partial scope of originally filed TAPS project. |
| 15 | 23776 | 31978 | 31031894 | RT-029 DREG5483-NV REPL PH1 | Redding | GT/GC | 1/8/2014 | 1/21/2014 | $ 521,917.00 | $ 455,823.31 | $ 228,500.05 | $ 17,558.92 | $ 122,591.38 | $ 87,172.96 | $ (66,093.69) | $ - | $ - | No | Project addresses partial scope of originally filed TAPS project. |
| 16 | 23824 | 31979 | 31031897 | RT-030 STUB8663-STUB8664-STUB8665-NV REPL PH1 | Gridley | GT/GC | 3/2/2014 | 3/8/2014 | $ 267,789.00 | $ 228,839.92 | $ 162,741.70 | $ 6,192.26 | $ 38,822.99 | $ 21,082.97 | $ (38,949.08) | $ - | $ - | No | Project addresses partial scope of originally filed TAPS project. |
| 17 | 23787 | 31998 | 30842169 | RT-043 DREG4548-SI REPL PH1 | Yuba City | GT/GC | 1/21/2014 | 2/13/2014 | $ 212,636.00 | $ 189,145.24 | $ 113,396.57 | $ 17,071.18 | $ 37,365.10 | $ 21,312.39 | $ (23,490.76) | $ - | $ - | No | Project addresses partial scope of originally filed TAPS project. |
| 18 | 23787 | 31999 | 31031884 | RT-044 DREG4567-SI REPL PH1 | Wheatland | GT/GC | 2/12/2014 | 2/24/2014 | $ 126,092.00 | $ 220,964.47 | $ 154,294.80 | $ 2,493.20 | $ 38,880.42 | $ 25,296.05 | $ 94,872.47 | $ - | $ - | Yes | Project addresses partial scope of originally filed TAPS project. |
| 19 | 23787 | 32000 | 31031888 | RT-045 STUB6039-SI REPL PH1 | Live Oak | GT/GC | 3/12/2014 | 3/18/2014 | $ 134,911.00 | $ 144,090.09 | $ 116,499.91 | $ 4,807.28 | $ 7,990.80 | $ 14,792.10 | $ 9,179.09 | $ - | $ - | No | Project addresses partial scope of originally filed TAPS project. |
| 20 | 23787 | 32001 | 31031890 | RT-046 STUB6041-SI REPL PH1 | Live Oak | GT/GC | 1/23/2014 | 1/24/2014 | $ 130,438.00 | $ 202,371.45 | $ 138,362.33 | $ 6,334.80 | $ 33,015.60 | $ 24,658.72 | $ 71,933.45 | $ - | $ - | Yes | Project addresses partial scope of originally filed TAPS project. |
| 21 | 23785 | 32012 | 31031848 | RT-061 DREG4420-YO REPL PH1 | Madera | GT/GC | 3/10/2014 | 3/17/2014 | $ 242,995.00 | $ 209,604.63 | $ 158,405.23 | $ 4,948.41 | $ 23,762.35 | $ 22,488.64 | $ (33,390.37) | $ - | $ - | No | Project addresses partial scope of originally filed TAPS project. |
| 22 | N/A | 32860 | 31056343 | V-119 Valve Auto - Davis Meter Reg Station | Davis | Barnard | 8/5/2013 | 2/19/2014 | $ 566,321.00 | $ 1,189.51 | $ 1,039.21 | $ - | $ - | $ 150.30 | $ (565,131.49) | $ - | $ - | No | |
| 23 | N/A | 33217 | 31062555 | RT-010 STUB9046-DI REPL EXPENSE PH1 | Brentwood | GT/GC | 3/17/2014 | 3/28/2014 | $ 228,534.00 | $ 6,994.85 | $ 4,699.61 | $ 1,614.14 | $ - | $ 681.10 | $ (221,539.15) | $ - | $ - | No | |
| 24 | 23689 | 31993 | 30842126 | RT-047 DCUST2473-SJ REPL PH1 | Morgan Hill | GT/GC | 2/19/2014 | 2/20/2014 | $ 95,405.00 | $ 88,437.22 | $ 66,635.64 | $ 11.42 | $ 13,359.88 | $ 8,430.28 | $ - | $ - | $ - | No | |

TABLE 12-1
PACIFIC GAS AND ELECTRIC COMPANY
PROJECT STATUS SUMMARY - PROJECTS BEGUN BUT CURRENTLY UNFINISHED
JANUARY 1, 2014 – MARCH 31, 2014

| Line # | PSEP Filing PSRS | New PSRS | Project Description | Mobilization Date | Tie-in Date | Job Estimate Amount | Comments |
|---|---|---|---|---|---|---|---|
| 1 | 23365 | 23366 | R-029 L-109 REPL 0.71MI MP 9.27-9.87 Spread 6A | 7/20/2012 | TBD | $ 8,949,209.15 | Delayed until 2014 to coincide with other work in the area. Original project was tied-in in 2012 with another 149 feet to be completed in 2013 because a school could not take the outage required for clearance in 2012. |
| 2 | 23471 | 23471 | T-235-13, Line L-131Z, Rio Vista | 3/3/2014 | 4/29/2014 | $ 1,887,016.14 | Delayed from 2013 to 2014 to coordinate with other work in the vicinity. |
| 3 | 23652 | 23652 | V-074 Valve Auto - Union Ave Meter Reg Sta, 1V, Ph. 1 | 2/24/2014 | 4/11/2014 | $ 1,434,434.00 | This project proposes to install remote control valve functionality on valves at Union Ave. Meter & Reg. Station on Line 300B (M.P. 269.45). |
| 4 | 23661 | 23661 | V-056 Valve Auto - Bixler Rd, 3V, Ph. 1 | 1/27/2014 | 6/18/2014 | $ 3,279,021.00 | Delayed from 2013 to 2014 because this project requires ordering of long lead items. In addition, this project requires an outage on Line 57B, on which there is limited clearance availability as this line is the sole feed to PG&E's storage facilities on McDonald Island. |
| 5 | 23665 | 23665 | V-058 Valve Auto - 24th & 20th Ave, 3V, Ph. 1 | 2/3/2014 | 6/19/2014 | $ 1,783,515.00 | |
| 6 | 23667 | 23667 | V-067 Valve Auto - Ripon-Modesto, 3V, Ph. 1 | 2/24/2014 | 5/16/2014 | $ 1,669,857.00 | |
| 7 | 23668 | 23668 | V-066 Valve Auto - Cordelia, 6V, Ph. 1 | 3/4/2014 | 6/17/2014 | $ 2,779,205.00 | |
| 8 | 23973 | 23973 | V-077 Valve Auto - Cummings Creek, 1V, Ph. 1 | 3/10/2014 | 4/16/2014 | $ 591,123.00 | |
| 9 | 23974 | 23974 | V-078 Valve Auto - Tompkins Hill, 3V, Ph. 1 | 3/11/2014 | 5/3/2014 | $ - | JE in progress |
| 10 | N/A | 25791 | R-114 L-114 Retire 0.70MI MP 8.18-8.91 PH1 | 3/6/2013 | TBD | $ 264,013.00 | Added as new project to replacement workstream to retire this portion of L-114_2 due to redundancy. Completed in conjunction with R-100, R-043, T-015-12, T-279-13. |
| 11 | 23874 | 26442 | R-100 L-131 Retire 0.58MI MP 8.56-8.93 PH1 | 3/6/2013 | TBD | $ 147,444.00 | Added as new retirement project from filed test project to reduce redundant pipeline. Done in conjunction with R-043, R-114, T-015-12, and T-279-13. |
| 12 | 24890 | 27904 | R-202 DFM-1607-01 REPL 1.11MI MP 0.00-1.62 PH1 | 7/1/2013 | 5/29/2014 | $ 5,086,752.00 | Accelerated from 2014 to 2013 to accommodate a planned diameter increase from 8" to 12" to increase system capacity. |
| 13 | 23529 | 29053 | R-145 L-306 REPL 0.01MI MP 43.30-43.31 PH1 | 3/31/2014 | 4/9/2014 | $ 896,430.00 | Added as short replacement project for cost efficiency reasons because all except these 50 ft. of filed test was removed from PH1 due to records verification; subsequently delayed from 2013 to 2014 due to schedule and workload balancing. |
| 14 | 24898 | 29426 | TS-001-13, Line L-105N-3, Oakland | 3/17/2014 | 4/19/2014 | $ 1,405,867.13 | Added as new nitrogen test project from filed replacement project for cost efficiency reasons because the line runs under a railroad, then delayed from 2013 to 2104 due to long lead permitting required from the railroad company. |
| 15 | N/A | 29634 | V-085 Valve Auto - L-300A MLV 328.06, 1V, Ph. 1 | 12/5/2013 | 4/3/2014 | $ 774,482.00 | Added as a new Valve Automation project (originally part of ILI scope) for cost efficiency reasons and to allow for standardization of Valve Automation. |
| 16 | N/A | 29635 | V-086 Valve Auto - L-300B MLV 327.83, 1V, Ph. 1 | 12/5/2013 | 4/4/2014 | $ 728,601.00 | Added as a new Valve Automation project (originally part of ILI scope) for cost efficiency reasons and to allow for standardization of Valve Automation. |
| 17 | 23907 | 29715 | T-358A-14, Line DFM-6603-01, Ridgecrest | 3/4/2014 | 5/6/2014 | $ 3,911,572.06 | |
| 18 | 24202 | 30908 | T-301-14, Line L-2, Westley | 3/6/2014 | 4/28/2014 | $ 3,665,642.34 | |
| 19 | 23535 | 30909 | T-379-14, Line L-021F, San Rafael | 3/20/2014 | 5/5/2014 | $ 2,362,235.44 | |
| 20 | 23828 | 31369 | T-405-14, Line DFM-1209-01, Fowler | 3/11/2014 | 4/2/2014 | $ 1,736,433.08 | |
| 21 | N/A | 31693 | R-066 L-119B REPL 1.12MI MP 0.59-2.23 PH1 | 1/21/2014 | 6/4/2014 | $ 7,335,684.00 | Added replacement project from filed test project as a result of data validation. |
| 22 | N/A | 32882 | T-358B-14, Line DREG5496, Ridgecrest | 3/28/2014 | 6/4/2014 | $ - | Proposed new project, pending scope validation. |
| 23 | 23650 | 23650 | V-075 Valve Auto - Gosford Rd Mtr Sta, 3V, Ph. 1 | 3/31/2014 | 5/16/2014 | $ 1,335,596.00 | |
| 24 | N/A | 31601 | D-009 L-300A MP 235.55 CD-06A | 3/6/2013 | 4/24/2014 | $ 42,408.00 | Added project for Non-destructive Examination (Mag Particle or Penetrant testing along with radiography) to check for cracks in the wrinkle bend on a span of line 300A on MP 235.553. |
| 25 | 24022 | 30070 | D-014A L-300A MP 354.35 ID-18-1 | 2/17/2014 | 4/24/2014 | $ 760,557.00 | Added project (Original PSRS 24022 for Inspection) for Dig aspects, 3 sections of L300-A ID 18-1, 18-2 &18-3. |
| 26 | 24022 | 30070 | D-014B L-300A MP 369.72 ID-18-2 | 3/10/2014 | 4/24/2014 | | See above |

TABLE 12-1
PACIFIC GAS AND ELECTRIC COMPANY
PROJECT STATUS SUMMARY - PROJECTS BEGUN BUT CURRENTLY UNFINISHED
JANUARY 1, 2014 – MARCH 31, 2014

| Line # | PSEP Filing PSRS | New PSRS | Project Description | Mobilization Date | Tie-in Date | Job Estimate Amount | Comments |
|---|---|---|---|---|---|---|---|
| 27 | 24022 | 30070 | D-014C L-300A MP 372.97 ID-18-3 | 2/13/2014 | 4/24/2014 | | See above |
| 28 | N/A | 31485 | C-200 DFM-0832-01 MP 0.25 Install Insulator | 12/18/2013 | TBD | $ 266,477.00 | The project was added as a result to previously planned Strength Test. |

TABLE 13-1
PACIFIC GAS AND ELECTRIC COMPANY
PROJECT STATUS SUMMARY - PROJECTS FORECASTED FOR PHASE 1 BUT YET TO START
REPORTING PERIOD JANUARY 1, 2014 – MARCH 31, 2014

| Line # | PSEP Filing PSRS | New PSRS | Project Description | Mobilization Date | Tie-in Date | Job Estimate Amount | Comments |
|---|---|---|---|---|---|---|---|
| 1 | 23514 | 23514 | T-343-14, Line L-191A, Lafayette | 7/23/2014 | 9/15/2014 | $ - | JE in progress. |
| 2 | 23540 | 23540 | T-313-14, Line L-050A, Oroville | 9/2/2014 | 9/30/2014 | $ - | JE in progress. |
| 3 | 23559 | 23559 | T-325-14, Line L-126A, Humboldt Hill | 5/10/2014 | 7/3/2014 | $ - | JE in progress. |
| 4 | 23561 | 23561 | T-326-14, Line L-126B, Humboldt Hill | 6/14/2014 | 8/5/2014 | $ - | JE in progress. |
| 5 | 23575 | 23575 | T-075-12, Line DFM-0611-01, Sacramento | 7/7/2014 | 8/14/2014 | $ - | Delayed from 2012 to 2013 initially to coordinate work with other 2013 tests, but then delayed further to reduce the impact on customers and to coordinate work with other projects scheduled for 2014. JE in progress. |
| 6 | 23579 | 23579 | T-335A-14, Line DFM-1502-11, Marysville | 4/18/2014 | 5/22/2014 | $ - | JE in progress. |
| 7 | 23579 | 23579 | T-335B-14, Line DFM-1502-11, Marysville | 5/6/2014 | 6/10/2014 | $ - | JE in progress. |
| 8 | 23599 | 23599 | V-012 Valve Auto - Lomita Park, 1V, Ph. 1 (S-094) | 4/18/2014 | 9/29/2014 | $ - | Delayed from 2012 to 2013 as a result of environmental/species issues. This valve is in a marsh in San Francisco where numerous protected species are present. Then delayed further from 2013 to 2014 due to the extended time period requires to complete permitting process (CEQA). |
| 9 | 23632 | 23632 | V-041 Valve Auto - Foley's Ranch Crossover, 6V, Ph. 1 (R-304) | 7/7/2014 | 1/9/2015 | $ - | Delayed from 2013 to 2014 to coordinate work with the station rebuild at Foley's Ranch. JE in progress. Project at risk of non-completion in 2014. |
| 10 | 23633 | 23633 | V-042 Valve Auto - Vargas Crossover 2V, Ph. 1 | 6/26/2014 | TBD | $ - | Delayed from 2013 to 2014 for constructability reasons and due to scheduling and workload balancing. JE in progress. |
| 11 | 23634 | 23634 | V-043 Valve Auto - Irvington, 7V, Ph. 1 | 6/11/2014 | 8/2/2014 | $ - | Delayed from 2013 to 2014 due to the number of other projects currently in progress at Irvington. Design, engineering and permitting activities are targeted to be completed in 2013. JE in progress. |
| 12 | 23636 | 23636 | V-046 Valve Auto - Dalton Crossover, 2V, Ph. 1 | 6/13/2014 | 12/1/2014 | $ - | Delayed from 2013 to 2014 in order to coordinate with Non-PSEP ILI Retrofit project (PSRS 24224) at Dalton Crossover for construction efficiency reasons. JE in progress. |
| 13 | 23644 | 23644 | V-080 Valve Auto - Mojave River Crossing, 1V, Ph. 1 | 9/17/2014 | 11/20/2014 | $ - | JE in progress. |
| 14 | 23646 | 23646 | V-079 Valve Auto - 2AX Pls, 2V, Ph. 1 | 7/7/2014 | 8/8/2014 | $ - | JE in progress. |
| 15 | 23648 | 23648 | V-076 Valve Auto - Bakersfield Tap, 3V, Ph. 1 | 4/21/2014 | 6/20/2014 | $ - | JE in progress. |
| 16 | 23657 | 23657 | V-054B Valve Auto - Brentwood Terminal, 8V, Ph. 1 | 6/10/2014 | 9/11/2014 | $ - | Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress. |
| 17 | 23659 | 23659 | V-055C Valve Auto - Lakes Valve Lot, 1V, Ph. 1 | 9/2/2014 | 10/18/2014 | $ - | Delayed from 2013 to 2014 due to efforts related to combining work for scheduling and cost efficiency reasons. JE in progress. |
| 18 | 23669 | 23669 | V-059 Valve Auto - Yolo Causway Blvd Tie, 2V, Ph. 1 | 6/2/2014 | 9/4/2014 | $ - | JE in progress. |
| 19 | 23670 | 23670 | V-065 Valve Auto - Fairfield Crossover 4V, Ph. 1 | 8/26/2014 | 12/5/2014 | $ - | JE in progress. |
| 20 | 23672 | 23672 | V-064 Valve Auto - East Fairfield Crossover, 4V, Ph. 1 | 6/2/2014 | 7/18/2014 | $ - | JE in progress. |
| 21 | 23673 | 23673 | V-060 Valve Auto - N Sac Ugnd Hldr, 3V, Ph. 1 | 4/3/2014 | 6/21/2014 | $ 1,592,072.00 | |
| 22 | 23679 | 23679 | V-062 Valve Auto - Paramount Court, 1V, Ph. 1 | 4/15/2014 | 6/26/2014 | $ - | JE in progress. |
| 23 | 23783 | 23783 | R-177 DFM-1509-01 REPL 0.27MI MP 0.05-0.33 PH1 | 6/19/2014 | 8/21/2014 | $ - | JE in progress. |
| 24 | 23811 | 23811 | R-062 DFM-0603-01 REPL 0.68MI MP 0.00-0.57 PH1 | 7/7/2014 | 7/18/2014 | $ 1,851,680.00 | Delayed from 2013 to 2014 due to environmental/species impacts experienced during construction and subsequently due to clearance schedule balancing related to high winter gas loads. |
| 25 | 23815 | 23815 | R-010 L-108_2 REPL 0.14MI MP 48.16-48.20 PH1 | 10/14/2014 | 10/31/2014 | $ - | JE in progress. |
| 26 | 23849 | 23849 | R-201 DFM-0404-11 REPL 0.02MI MP 0.00-0.04 PH1 | 6/23/2014 | 7/24/2014 | $ - | Delayed from 2013 to 2014 as a result of data validation. JE in progress. |
| 27 | 23883 | 23883 | T-341-14, Line DFM-1869-01, Salinas | 9/22/2014 | 10/24/2014 | $ - | JE in progress. |
| 28 | 23884 | 23884 | T-319-14, Line DFM-0621-01, Woodland | 4/28/2014 | 6/4/2014 | $ - | JE in progress. |
| 29 | 23894 | 23894 | T-322-14, Line DFM-1027-01, Oroville | 5/15/2014 | 6/21/2014 | $ - | JE in progress. |
| 30 | 23972 | 23972 | V-044 Valve Auto - Sheridan Rd, 2V, Ph. 1 (S-084) | 5/28/2014 | 9/10/2014 | $ - | Delayed from 2013 to 2014 due to the presence of CA Tiger Salamander. JE in progress. |
| 31 | 24010 | 24010 | I-063 L-131 MP 50.5-57.4 ILI & Analysis PH-1 | 7/31/2014 | 9/18/2014 | $ - | JE in progress. |

TABLE 13-1
PACIFIC GAS AND ELECTRIC COMPANY
PROJECT STATUS SUMMARY - PROJECTS FORECASTED FOR PHASE 1 BUT YET TO START
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| Line # | PSEP Filing PSRS | New PSRS | Project Description | Mobilization Date | Tie-in Date | Job Estimate Amount | Comments |
|---|---|---|---|---|---|---|---|
| 32 | 24018 | 24018 | I-065 L-300B MP 299-351.8 ILI & Analysis PH-1 | 9/6/2014 | 10/22/2014 | $ - | JE in progress. |
| 33 | 24024 | 24024 | I-064 L-300A MP 299.00-352 ILI & Analysis PH-1 | 8/7/2014 | 9/25/2014 | $ - | JE in progress. |
| 34 | 24026 | 24026 | I-062 L-132 MP 31.7-38.4 ILI & Analysis PH-1 | 10/14/2014 | 12/10/2014 | $ - | JE in progress. Project at risk of non-completion in 2014. |
| 35 | 24028 | 24028 | I-061 L-101 MP 11.62-33.68 ILI & Analysis PH1 | 8/29/2014 | 10/15/2014 | $ - | JE in progress. |
| 36 | 24900 | 24900 | R-016 L-108_3 REPL 2.55MI MP 63.49-65.96 PH1 | 9/26/2014 | 1/19/2015 | $ - | Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress. |
| 37 | 24901 | 24901 | R-203 L-118-1 REPL 0.02MI MP 0.01-0.03 PH1 | 9/20/2014 | 10/17/2014 | $ - | Delayed from 2013 to 2014 due to schedule and workload balancing. JE in progress. |
| 38 | 23724 | 25719 | R-067 L-109_2B REPL 0.18MI MP 2.82-10.15 PH1 | 5/30/2014 | 6/14/2014 | $ - | Delayed from 2013 to 2014 due to permitting and planning constraints. JE in progress. |
| 39 | 23574 | 25814 | T-002-12, Line DFM-0401-01, San Rafael | 5/30/2014 | 8/2/2014 | $ - | Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012. Then further delayed to 2014 due to schedule and workload balancing. JE in progress. Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012. Then further delayed to 2014 due to schedule and workload balancing. JE in progress. |
| 40 | 23574 | 25817 | T-003-12, Line DFM-0401-01, San Rafael | 5/30/2014 | 8/2/2014 | $ - | Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012. Then further delayed to 2014 due to schedule and workload balancing. JE in progress. |
| 41 | 23574 | 25818 | T-004-12, Line DFM-0401-01, San Rafael | 8/1/2014 | 9/18/2014 | $ - | Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012. Then further delayed to 2014 due to schedule and workload balancing. JE in progress. |
| 42 | 23574 | 25823 | T-005-12, Line DFM-0401-01, Greenbrae | 8/1/2014 | 9/18/2014 | $ - | Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012. Then further delayed to 2014 due to schedule and workload balancing. JE in progress. |
| 43 | 23590 | 25832 | T-010-12, Line DFM-0407-01, Napa | 8/22/2014 | 10/10/2014 | $ - | Delayed from 2012 to 2014 to accommodate other higher priority tests for Integrity Management in 2012. Then further delayed to 2014 due to schedule and workload balancing. JE in progress. |
| 44 | 23533 | 25836 | T-066-12, Line L-021C, Cotati | 6/17/2014 | 8/1/2014 | $ - | Delayed from 2012 to 2014 as a result of data validation and due to schedule and workload balancing. JE in progress. |
| 45 | 23874 | 25847 | T-016-12, Line L-131_2, Fremont | 6/17/2014 | 8/8/2014 | $ - | |
| 46 | 24196 | 25856 | T-077-12, Line DFM-0611-05, Sacramento | 5/19/2014 | 7/16/2014 | $ - | Delayed from 2012 to 2013 initially to coordinate work with other 2013 tests, but then delayed further to reduce the impact on customers and to coordinate work with other projects scheduled for 2014. JE in progress. |
| 47 | 23929 | 25886 | T-094-12, Line DFM-1816-01, Aptos | 5/27/2014 | 7/23/2014 | $ - | Delayed from 2013 to 2014 to balancing of resources (CNG/LNG) related to providing adequate customer support during clearance. JE in progress. |
| 48 | 23929 | 25888 | T-095-12, Line DFM-1816-01, Aptos | 6/11/2014 | 7/23/2014 | $ - | Delayed from 2013 to 2014 to balancing of resources (CNG/LNG) related to providing adequate customer support during clearance. JE in progress. |
| 49 | 23692 | 26023 | R-046 L-109_4A_1 REPL 2.35MI MP 24.84-27.26 PH1 | 7/1/2014 | 11/13/2014 | $ - | JE in progress. Projects at risk of non-completion in 2014. |
| 50 | 23692 | 26025 | R-048 L-109_4C REPL 1.26MI MP 30.52-31.76 PH1 | 5/2/2014 | 8/3/2014 | $ - | JE in progress. Projects at risk of non-completion in 2014. |
| 51 | 23688 | 26048 | R-103 L-114_2 REPL 2.17MI MP 10.50-12.68 PH1 | 7/7/2014 | 10/13/2014 | $ 13,908,817.00 | Delayed from 2012 to 2014 due to permits requiring long lead times. |
| 52 | 24052 | 26049 | R-060 L-021D REPL 2.65MI MP 19.27-24.49 PH1 | 8/11/2014 | 10/2/2014 | $ - | Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress. Project at risk of non-completion in 2014. |
| 53 | 24059 | 26057 | R-055 L-057A REPL 1.33MI MP 8.73-10.18 PH1 | 8/4/2014 | 10/28/2014 | $ - | Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress. Reroute for constructability required due to river crossing. |
| 54 | 23577 | 26124 | T-076B-12, Line DFM-0611-02, Sacramento | 5/19/2014 | 7/16/2014 | $ - | Delayed from 2012 to 2013 initially to coordinate work with other 2013 tests, but then delayed further to reduce the impact on customers and to coordinate work with other projects scheduled for 2014. JE in progress. |
| 55 | 23704 | 26516 | R-031 L-109_3B_1 REPL 1.29MI MP 18.61-19.71 PH1 | 6/9/2014 | 10/15/2014 | $ - | JE in progress. Project at risk of non-completion in 2014. |

TABLE 13-1
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| Line # | PSEP Filing PSRS | New PSRS | Project Description | Mobilization Date | Tie-in Date | Job Estimate Amount | Comments |
|---|---|---|---|---|---|---|---|
| 56 | 23704 | 27018 | R-052 L-109_3C REPL 0.79 MI MP 23.30-24.00 PH1 | 10/18/2014 | 2/24/2015 | $ - | JE in progress. Project at risk of non-completion in 2014. |
| 57 | 23584 | 27607 | T-221-13, Line DFM-0405-01, Napa | 7/14/2014 | 9/5/2014 | $ - | Delayed from 2013 to 2014 for constructability reasons related to a construction moratorium on the road under which this line runs. JE in progress. |
| 58 | 23489 | 27619 | T-236-13, Line L-137B, Eureka | 8/1/2014 | 9/15/2014 | $ - | Delayed from 2013 to 2014 due to permits requiring long lead times related to an environmentally sensitive area. JE in progress. |
| 59 | 23786 | 27752 | R-104 DFM-0405-01 REPL 0.50MI MP 3.03-3.30 PH1 | 4/28/2014 | 6/6/2014 | $ - | Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress. |
| 60 | 23702 | 27951 | R-061 L-196A REPL 2.00MI MP 11.58-13.45 PH1 | 7/24/2014 | 11/12/2014 | $ - | Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress. |
| 61 | 23822 | 28468 | R-059 L-123 REPL 4.01MI MP 0.00-9.74 PH1 | 5/9/2014 | 10/15/2014 | $ - | |
| 62 | 23728 | 29124 | R-230 L-103 REPL 0.01MI MP 22.20-22.21 PH1 | 4/1/2014 | 5/9/2014 | $ - | JE in progress. |
| 63 | 23780 | 29401 | R-064 DFM-0604-16 REPL 0.19 MI MP 0.00-0.18 PH1 | 7/7/2014 | 7/15/2014 | $ 823,352.00 | Delayed from 2013 to 2014 due to environmental/species impacts experienced during construction and subsequently due to clearance schedule balancing related to high winter gas loads. |
| 64 | 23780 | 29425 | R-152 DFM-0604-16 Downrate 0.31MI MP 0.18-0.50 PH1 | 7/21/2014 | 8/6/2014 | $ - | Delayed from 2013 to 2014 due to difficulty in acquiring initial as-builts and subsequent design completion. JE in progress. |
| 65 | 23796 | 29631 | R-205 L-021C REPL 0.55MI MP 31.85-32.39 PH1 | 6/6/2014 | 7/29/2014 | $ - | JE in progress. Project at risk of non-completion in 2014. |
| 66 | 23796 | 29633 | R-153 L-021C REPL 0.19MI MP 34.84-35.04 PH1 | 5/19/2014 | 7/28/2014 | $ - | JE in progress. Projects at risk of non-completion in 2014. |
| 67 | 23724 | 29697 | T-402-14, Line L-109, Sunnyvale | 7/1/2014 | 9/25/2014 | $ - | Delayed from 2013 to 2014. 1 segment (line 1) totaling 566 feet of pipeline was driven to a phase 1 strength test by the decision tree (DT Codes C2, M4). |
| 68 | 24052 | 29743 | R-158 L-021D REPL 0.62MI MP 18.65-19.27 PH1 | 6/6/2014 | 7/29/2014 | $ - | Delayed from 2013 to 2014 due to permits requiring long lead times and land acquisition challenges. JE in progress. Project at risk of non-completion in 2014. |
| 69 | 27628 | 30338 | R-187 DFM-1816-15 REPL 0.03MI MP 3.04-3.07 PH1 | 8/18/2014 | 9/4/2014 | $ - | Added from filed test project due to short length. It is more cost efficient to replace this short length rather than strength test. JE in progress. |
| 70 | 23704 | 30361 | R-165 L-109_3AA REPL 0.27MI MP 17.01-17.11 PH1 | 7/7/2014 | 8/15/2014 | $ - | JE in progress. |
| 71 | 23704 | 30589 | R-166 L-109_3B_2 REPL 1.64MI MP 20.38-22.20 PH1 | 6/21/2014 | 10/15/2014 | $ - | JE in progress. Project at risk of non-completion in 2014. |
| 72 | 23822 | 30616 | R-167 L-123 REPL 1.83MI MP 4.35-13.74 PH1 | 6/17/2014 | 10/15/2014 | $ - | JE in progress. Projects at risk of non-completion in 2014. |
| 73 | 23692 | 30667 | R-185 L-109_4A_2 REPL 1.04MI MP 28.60-29.60 PH1 | 7/14/2014 | 10/29/2014 | $ - | Delayed from 2014 to 2015 due to environmental/species concerns around San Mateo Creek and related long lead permitting required. JE in progress. Project at risk of non-completion in 2014. |
| 74 | 23365 | 30791 | R-192 L-109 REPL 0.03MI MP 9.87-9.88 Spread 6B | 6/2/2014 | 7/31/2014 | $ - | A portion of this original project was tied-in in 2012 (PSRS 23366) with this 149 feet to be completed in 2013 because a school could not take the outage required for clearance in 2012; however, it has now been delayed until 2014 to coincide with other work. |
| 75 | 23731 | 30881 | R-195 L-162A REPL 0.85MI MP 6.62-7.40 PH1 | 7/7/2014 | 8/16/2014 | $ - | JE in progress. |
| 76 | 23481 | 30889 | T-375-14, Line DFM-7226-02, Modesto | 5/9/2014 | 6/14/2014 | $ - | Delayed from 2013 to 2014 due to schedule and workload balancing. JE in progress. |
| 77 | N/A | 30891 | T-374-14, Line L-189, Humboldt | 7/3/2014 | 8/21/2014 | $ - | Added as new project as a result of data validation and some added segments due to proximity. JE in progress. |
| 78 | 24072 | 30898 | T-377-14, Line L-134A, Fresno | 5/5/2014 | 5/29/2014 | $ - | JE in progress. |
| 79 | N/A | 30922 | T-363-14, Line L-142S, Bakersfield | 8/26/2014 | 10/17/2014 | $ - | Added as new project as a result of data validation. JE in progress. |
| 80 | 23520 | 30925 | T-345B-14, Line L-197B, Woodbridge | 4/10/2014 | 6/4/2014 | $ 1,774,054.61 | |
| 81 | 24219 | 30927 | T-350-14, Line L-300B, Hinkley | 9/17/2014 | 11/4/2014 | $ - | JE in progress. |
| 82 | 24219 | 30928 | T-351-14, Line L-300B, Boron | 10/10/2014 | 11/24/2014 | $ - | JE in progress. |
| 83 | 23934 | 30944 | TIM-364-14, Line DFM-1401-01, San Francisco | 5/12/2014 | 5/29/2014 | $ - | Delayed from 2012 to 2014 to allow time for a direct assessment in September of 2013 to confirm pipe specifications prior to testing. JE in progress. |
| 84 | 23912 | 30945 | T-332A-14, Line DFM-1501-02, Yuba City | 4/7/2014 | 5/20/2014 | $ 1,383,548.79 | |
| 85 | 23912 | 30946 | T-332B-14, Line DFM-1501-02, Yuba City | 4/14/2014 | 6/10/2014 | $ 2,052,122.95 | |
| 86 | N/A | 30948 | T-022A-12, Line L-191-1, Lafayette | 6/24/2014 | 8/12/2014 | $ - | JE in progress. |
| 87 | 23728 | 31033 | R-190 L-103 REPL 0.17MI MP 9.71-9.86 PH1 | 8/2/2014 | 9/30/2014 | $ - | JE in progress. |

TABLE 13-1
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| Line # | PSEP Filing PSRS | New PSRS | Project Description | Mobilization Date | Tie-in Date | Job Estimate Amount | Comments |
|---|---|---|---|---|---|---|---|
| 88 | 23867 | 31042 | R-188 L-220 REPL 0.52MI MP 19.37-19.92 PH1 | 8/28/2014 | 9/25/2014 | $ - | Delayed from 2013 to 2014 due to permits requiring long lead times. JE in progress. |
| 89 | 23895 | 31054 | T-348-14, Line DFM-2408-01, Pleasanton | 4/16/2014 | 5/9/2014 | $ - | JE in progress. |
| 90 | N/A | 31059 | T-400-14, Line L-109_4B, Woodside | 9/9/2014 | 10/21/2014 | $ - | Added as a new test from a filed replacement project for constructability reasons. JE in progress. |
| 91 | 24059 | 31161 | R-194 DFM-0611-05 REPL 0.07MI MP 0.00-0.12 PH1 | 5/19/2014 | 7/16/2014 | $ - | JE in progress. |
| 92 | 24055 | 31267 | R-199 L-021H REPL 0.06MI MP 6.38-6.42 PH1 | 9/2/2014 | 10/4/2014 | $ - | JE in progress. |
| 93 | 24055 | 31276 | R-206 L-021H REPL 0.01MI MP 1.07-1.07 PH1 | 7/9/2014 | 8/7/2014 | $ - | JE in progress. |
| 94 | N/A | 31293 | R-200 L-114 REPL 0.12MI MP 16.75-16.86 PH1 | 6/26/2014 | 8/10/2014 | $ - | Added as new project as a result of data validation that identified a class location change. JE in progress. Ensures clearance of a class 3 area. |
| 95 | N/A | 31336 | R-197 DFM-6605-01 REPL 0.05MI MP 0.00-0.05 PH1 | 8/1/2014 | 8/21/2014 | $ - | Added new project due to a class location change. The segment will be replaced due to its short length. It is more cost efficient to replace this short length rather than strength test. JE in progress. |
| 96 | N/A | 31366 | R-204 L-301C REPL 0.01MI MP 17.25-17.26 PH1 | 6/14/2014 | 7/31/2014 | $ - | Added as new project as a result of data validation due to lack of strength test records and will be replaced due to short length. It is more cost efficient to replace this short length rather than strength test. JE in progress. |
| 97 | 24254 | 31367 | R-042 SP-3 REPL 0.01MI MP 174.29-174.29 (HWY4) PH1 | 12/5/2014 | 1/17/2015 | $ - | Delayed from 2012 to 2014 after scope change that added segments after others were removed due to records verified in 2012 to allow completion of engineering and constructability analysis. Then delayed further due to scheduling and workload balancing. JE in progress. |
| 98 | 23736 | 31368 | T-404-14, Line DFM-0107-01, Oakland | 10/15/2014 | 11/25/2014 | $ - | JE in progress |
| 99 | 23911 | 31370 | T-368-14, Line DFM-1501-01, Yuba City | 4/14/2014 | 6/10/2014 | $ 2,621,759.03 | |
| 100 | N/A | 31595 | R-211 L-220 Dresser Coupling Mitigation MP3.02 | 5/12/2014 | 5/14/2014 | $ - | Ph1 project to mitigate a dresser coupling (either by replacing with a short piece of pipe or putting in a 220 sleeve over the coupling) in the transmission system. This has been identified in the ECA program as a Phase 1 PSEP job. |
| 101 | N/A | 31596 | R-212 L-220 Dresser Coupling Mitigation MP34.11 | 5/16/2014 | 5/20/2014 | $ - | Added from filed valve auto project then delayed from 2013 to 2014 to coordinate with other work in the vicinity. JE in progress. |
| 102 | 23750 | 31948 | RT-001 DF3429-CC REPL PH1 | 6/2/2014 | 6/30/2014 | $ - | JE in progress. |
| 103 | 23753 | 31953 | RT-006 DFDS3587-DA REPL PH1 | 5/15/2014 | 6/9/2014 | $ - | JE in progress. |
| 104 | 23690 | 31961 | RT-014 DREG4794-FR REPL PH1 | 5/16/2014 | 5/30/2014 | $ - | JE in progress. |
| 105 | 23749 | 31972 | RT-024 STUB7837-MI REPL PH1 | 4/28/2014 | 5/2/2014 | $ - | JE in progress. |
| 106 | 23718 | 31973 | RT-025 BD8547-X6342-NB REPL PH1 | 6/16/2014 | 6/28/2014 | $ - | JE in progress. |
| 107 | 23718 | 31975 | RT-027 DFDS3544-DREG3876-NB REPL PH1 | 7/14/2014 | 7/26/2014 | $ - | JE in progress. |
| 108 | 23740 | 31983 | RT-034 DREG4339-PN REPL EXPENSE PH1 | 6/2/2014 | 6/14/2014 | $ - | JE in progress. |
| 109 | 23928 | 31984 | RT-035 DFDS3613-DREG4482-SA REPL PH1 | 9/15/2014 | 9/27/2014 | $ - | JE in progress. |
| 110 | 23928 | 31985 | RT-036 DREG4050-SA REPL PH1 | 5/12/2014 | 5/24/2014 | $ - | JE in progress. |
| 111 | 23928 | 31986 | RT-037 DREG4095-SA REPL PH1 | 7/28/2014 | 8/9/2014 | $ - | JE in progress. |
| 112 | 23928 | 31988 | RT-039 STUB8028-SA REPL PH1 | 4/21/2014 | 5/3/2014 | $ - | JE in progress. |
| 113 | 23689 | 31996 | RT-050 DREG4161-SJ REPL PH1 | 4/21/2014 | 4/29/2014 | $ - | JE in progress. |
| 114 | 23744 | 32002 | RT-052 DREG3803-DREG3808-SO REPL PH1 | 5/27/2014 | 6/4/2014 | $ - | JE in progress. |
| 115 | 23744 | 32003 | RT-053 X6335-SO REPL PH1 | 6/9/2014 | 6/18/2014 | $ - | JE in progress. |
| 116 | 23706 | 32005 | RT-054 DCUST1739-ST REPL PH1 | 6/30/2014 | 7/12/2014 | $ - | JE in progress. |
| 117 | 23706 | 32006 | RT-055 DREG4921-ST REPL PH1 | 8/1/2014 | 8/22/2014 | $ - | JE in progress. |
| 118 | 23706 | 32008 | RT-057 DREG4892-ST REPL PH1 | 7/21/2014 | 8/1/2014 | $ - | JE in progress. |
| 119 | 23785 | 32011 | RT-060 DF3338-DREG4460-YO REPL PH1 | 6/16/2014 | 6/27/2014 | $ - | JE in progress. |
| 120 | 23785 | 32015 | RT-064 DREG4453-YO REPL PH1 | 7/7/2014 | 7/16/2014 | $ - | JE in progress. |
| 121 | 23785 | 32016 | RT-065 DREG4454-YO REPL PH1 | 9/15/2014 | 9/30/2014 | $ - | JE in progress. |
| 122 | 23785 | 32017 | RT-066 STUB6099-YO REPL PH1 | 6/30/2014 | 7/3/2014 | $ - | JE in progress. |
| 123 | 23785 | 32018 | RT-067 STUB6102-YO REPL PH1 | 8/1/2014 | 8/6/2014 | $ - | JE in progress. |
| 124 | 23785 | 32019 | RT-068 STUB6104-YO REPL PH1 | 9/15/2014 | 9/30/2014 | $ - | JE in progress. |
| 125 | 23785 | 32020 | RT-069 STUB6183-YO REPL PH1 | 8/8/2014 | 8/30/2014 | $ - | JE in progress. |
| 126 | N/A | 32296 | T-406-14, Line L-057A, Discovery Bay | 9/26/2014 | 10/24/2014 | $ - | Added as new test from filed replacement project. JE in progress. |

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| Line # | PSEP Filing PSRS | New PSRS | Project Description | Mobilization Date | Tie-in Date | Job Estimate Amount | Comments |
|---|---|---|---|---|---|---|---|
| 127 | N/A | 32375 | R-382 L-164 Dresser Coupling Mitigation MP 0.73 | 6/10/2014 | 6/13/2014 | $ - | Added as a part of Engineering Condition Analysis |
| 128 | N/A | 32376 | R-383 L-164 Dresser Coupling Mitigation MP 2.11 | 6/17/2014 | 6/19/2014 | $ - | Added as a part of Engineering Condition Analysis |
| 129 | N/A | 32603 | RT-031 DF3216-PN REPL EXPENSE PH1 | 8/25/2014 | 8/27/2014 | $ - | |
| 130 | N/A | 32864 | V-120 Valve Auto - Baseline Rd Lot Rebuild | 6/16/2014 | 8/15/2014 | $ - | Added a new Valve Automation project for constructability and efficiency reasons as another project is rebuilding the Baseline Rd Valve Lot. Inclusion of V 3.42, currently a RCV used for system isolation to provide addition feed during high demand periods, in Phase 1 supports wider later Phase 2 Valve Automation program along L-123 which will be adding RCVs from Antelope Meter Sta. (V0.00) to Lincoln Junction (MP 13.57), including Baseline Rd. |
| 131 | N/A | 32883 | T-407-14, Line DFM-0206-01, Woodside | 9/9/2014 | 10/21/2014 | $ - | New project, DFM-0206-01 (PSRS #32883) will be tested in conjunction with strength test on L-109 (PSRS #31059). T-407-14, L-DFM-0206-01 TEST 0.01 MI MP 0.00 to MP 0.01. For cost efficiency, this project will share a clearance with PSRS# 31059. |
| 132 | N/A | 32885 | R-417 L-021D REPL 0.02MI MP 23.75-24.50 PH1 | 8/11/2014 | 9/29/2014 | | This project is being split because the replacement spreads are almost two miles apart and it is more productive to design and construct them on different schedules. |
| 133 | N/A | 32950 | T-408-14, Line L-124A, Linda | 5/20/2014 | 7/1/2014 | $ - | New Test added to address pipeline segments originally filed as a single replacement project scope, change driven from identification of prior in-line inspection; total three strength tests required to address specific segments due to constructability. |
| 134 | N/A | 32951 | T-409A-14, Line L-124A, Yuba City | 6/20/2014 | 8/1/2014 | $ - | See Test T-408-14. |
| 135 | N/A | 32951 | T-409B-14, Line L-124A-1, Yuba City | 6/20/2014 | 8/15/2014 | $ - | See Test T-408-14. |
| 136 | N/A | 32952 | T-410-14, Line L-124A, Yuba City | 8/20/2014 | 10/3/2014 | $ - | See Test T-408-14. |
| 137 | 23787 | 30979 | TS-015-14, Line GCUST5765, Live Oak | 4/7/2014 | 4/14/2014 | $ 853,615.17 | |
| 138 | N/A | 33400 | RT-016 DCUST9089-HB REPL PH1 EXP | 7/1/2014 | 7/17/2014 | $ - | DCUST9089 segment 101 is being transferred from PSRS 23794 to 33400 for constructability efficiency. |
| 139 | N/A | 33401 | RT-017 DREG3841-HB REPL PH1 EXP | 7/1/2014 | 7/21/2014 | $ - | DREG3841 is being transferred from PSRS 23794 to 33401 for constructability efficiency. |
| 140 | N/A | 33176 | R-419 L-124A REPL 0.01MI MP 20.63-20.64 PH1 | 12/9/2014 | 1/29/2015 | $ - | Remainder 26 feet of original pipe replacement scope after majority of prior pipeline scope transferred to three separate strength tests. |
| 141 | N/A | 32307 | R-240 L-109_4A_3 REPL 0.51MI MP 29.60-31.11 PH1 | 7/16/2014 | 11/10/2014 | $ - | Project split to reflect pipeline segments that are at risk of non-completion in 2014. L-109_4A_3 REPL MP 29.60-30.11 PSRS #32307 has been split from L-109_4A_2 REPL 1.62MI MP 28.60-30.11 PH. |

TABLE 14-1
PACIFIC GAS AND ELECTRIC COMPANY
PROJECT STATUS SUMMARY - NEW PROJECTS COMPLETED, WORK-IN-PROGRESS, PLANNED
REPORTING PERIOD JANUARY 1, 2014 – MARCH 31, 2014

| Line # | PSEP Filing PSRS | New PSRS | Order Number | Project Description | Job Estimate Amount | Comments |
|---|---|---|---|---|---|---|
| 1 | N/A | 29634 | 30976002 | V-085 Valve Auto - L-300A MLV 328.06, 1V, Ph. 1 | $ 774,482.00 | Added as a new Valve Automation project (originally part of ILI scope) for cost efficiency reasons and to allow for standardization of Valve Automation. JE (Job Estimate) in progress. |
| 2 | N/A | 29635 | 30976003 | V-086 Valve Auto - L-300B MLV 327.83, 1V, Ph. 1 | $ 728,601.00 | Added as a new Valve Automation project (originally part of ILI scope) for cost efficiency reasons and to allow for standardization of Valve Automation. JE in progress. |
| 3 | N/A | 30094 | 30984493 | V-068A Valve Auto - Airport & Louise, 3V, Ph. 1 | $ 2,536,322.00 | Added to replace filed Valve Auto project Airport & Yosemite (PSRS 23664) for cost and efficiency reasons due to construction complexities at the filed project site. |
| 4 | N/A | 32296 | 42065282 | T-406-14, Line L-057A, Discovery Bay | $ - | Added as new test from filed replacement project. JE in progress. |
| 5 | N/A | 32860 | 31056343 | V-119 Valve Auto - Davis Meter Reg Station | $ 566,321.00 | Added as a new Valve Automation project. |
| 6 | N/A | 32864 | 31056341 | V-120 Valve Auto - Baseline Rd Lot Rebuild | $ - | Added a new Valve Automation project for constructability and efficiency reasons as another project is rebuilding the Baseline Rd Valve Lot. Inclusion of V 3.42, currently a RCV used for system isolation to provide addition feed during high demand periods, in Phase 1 supports wider later Phase 2 Valve Automation program along L-123 which will be adding RCVs from Antelope Meter Sta. (V0.00) to Lincoln Junction (MP 13.57), including Baseline Rd. |
| 7 | N/A | 32883 | 42076762 | T-407-14, Line DFM-0206-01, Woodside | $ - | Added new project and is being done in conjunction to filed PSEP project.T-407-14, L-DFM-0206-01 TEST 0.01 MI MP 0.00 to MP 0.01 |
| 8 | N/A | 32950 | 42072758 | T-408-14, Line L-124A, Linda | $ - | Added new Test - Filed as single REPL, now being done as 3 strength tests. Transfer most of the original replacement project scope to three strength tests due to constructability. |
| 9 | N/A | 32951 | 42072761 | T-409A-14, Line L-124A, Yuba City | $ - | Added new Test - Filed as single REPL, now being done as 3 strength tests. Transfer most of the original replacement project scope to three strength tests due to constructability. |
| 10 | N/A | 32951 | 42072761 | T-409B-14, Line L-124A-1, Yuba City | $ - | Added new Test - Filed as single REPL, now being done as 3 most of the original replacement project scope to three strength tests due to constructability. |
| 11 | N/A | 32952 | 42072763 | T-410-14, Line L-124A, Yuba City | $ - | Added new Test - Filed as single REPL, now being done as 3 most of the original replacement project scope to three strength tests due to constructability. |
| 12 | N/A | 33176 | 31063854 | R-419 L-124A REPL 0.01MI MP 20.63-20.64 PH1 | $ - | Added new project - Remainder 26 feet of original pipe replacement scope after majority of prior pipeline scope transferred to three separate strength tests. |

TABLE 19-1
PACIFIC GAS AND ELECTRIC COMPANY
COST IMPACTS BY PROJECT
REPORTING PERIOD JANUARY 1, 2014 – MARCH 31, 2014

| Line # | New PSRS | Project Description | Region | Risk | Description | Cost Impact ($) | Schedule Impact (days) | >10% Variance | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 31822 | R-207 L-177A REPL 0.01MI MP 26.55-26.55 PH4 | North | Unexpected Condition of Pipe, Valves or Fittings | Pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear indications on the pipe. | $30,000 | 1 | No | Collection & handling of large quantities of contaminated liquids was not anticipated during blow-down. Work to clear the line of liquids in preparation for cut-in & replacement of L-177A resulted in a delay |
| 2 | 31822 | R-207 L-177A REPL 0.01MI MP 26.55-26.55 PH5 | North | Unexpected Condition of Pipe, Valves or Fittings | Pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear indications on the pipe. | $50,000 | 1 | No | The existing connection at the blow-off was not set up to accommodate hard pipe connection from the blow-off stack to a Baker tank to catch liquids displaced during blow-off activities. As a result, additional materials, labor & equipment were required to remove existing clamshell and install a new weld neck blind |
| 3 | 31822 | R-207 L-177A REPL 0.01MI MP 26.55-26.55 PH5 | North | Weather Impacts | Potential construction delays and resulting additional costs due to rain days. Potential rain interaction with species (e.g. CTS breading migration) delaying construction and increasing cost. | $20,000 | 2 | No | Inclement weather conditions delayed painting and site restoration. Crew will return to complete site restoration as weather conditions permit. |
| 4 | 29275 | R-157 DFM-1603-01 REPL 1.42MI MP 0.07-1.30 PH1 | Ctr Vly | Permitting | Unplanned permitting conditions, requirements and delays from various permitting agencies (e.g. limited working hours, limited access, delays in issuance, etc.). | $125,000 | N/A | No | Costs to repave the road, which was a constraint of the city permit, were higher than expected. |
| 5 | 29275 | R-157 DFM-1603-01 REPL 1.42MI MP 0.07-1.30 PH2 | Ctr Vly | Productivity Impacts | Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation. | $100,000 | 15 | No | Workload balancing of resources for a distribution project in the region resulted in stand-by time waiting to commence work on this project. Some costs were also incurred due to equipment rental during this delay also. |
| 6 | 29275 | R-157 DFM-1603-01 REPL 1.42MI MP 0.07-1.30 PH3 | Ctr Vly | Productivity Impacts | Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation. | N/A | 4 | No | A strength test project dependent on a portion of this project commenced first, pushing this project out to 2014 since the same construction crew could not work on both projects at once. |
| 7 | 29275 | R-157 DFM-1603-01 REPL 1.42MI MP 0.07-1.30 PH4 | Ctr Vly | Productivity Impacts | Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation. | N/A | 3 | No | Delay experienced while finding an alternate contractor to complete an HDD under railroad, after originally anticipated contractor resources were determined to be unavailable. |
| 8 | 29275 | R-157 DFM-1603-01 REPL 1.42MI MP 0.07-1.30 PH5 | Ctr Vly | Field Conditions Differ from Expected Conditions | As-built drawings and/or GIS were believed to be accurate according to records, but did not match what was actually encountered in the field. | $429,000 | N/A | No | Trenching was realigned due to the lack of compaction of existing utilities leading to increased costs to accommodate new alignment. |
| 9 | 29275 | R-157 DFM-1603-01 REPL 1.42MI MP 0.07-1.30 PH6 | Ctr Vly | Field Conditions Differ from Expected Conditions | As-built drawings and/or GIS were believed to be accurate according to records, but did not match what was actually encountered in the field. | $471,000 | N/A | No | Ground water was encountered near a culvert in the field. To accommodate this construction scope changed from an originally planned 100ft bore to a 483ft HDD |
| 10 | 29275 | R-157 DFM-1603-01 REPL 1.42MI MP 0.07-1.30 PH7 | Ctr Vly | Clearance | Tight clearance windows may result in contractor working additional hours to meet the window for tie-in. Delays may also be experienced if a clearance window cannot be obtained when needed due to a variety of reasons. Also, additional labor and/or materials may be necessary to complete clearance. | $100,000 | N/A | No | Additional CNG/LNG were necessary which increased project costs. |
| 11 | 29275 | R-157 DFM-1603-01 REPL 1.42MI MP 0.07-1.30 PH7 | Ctr Vly | Unknown Obstructions During Excavation | Potential interference with unmarked and unknown obstructions found during the construction excavation or incorrect drawings potentially delaying construction and resulting in additional cost. | $122,000 | 3 | No | Limited production and increased costs were experienced as a result of an unmarked gas distribution main. |
| 12 | 29275 | R-157 DFM-1603-01 REPL 1.42MI MP 0.07-1.30 PH7 | Ctr Vly | Unknown Obstructions During Excavation | Potential interference with unmarked and unknown obstructions found during the construction excavation or incorrect drawings potentially delaying construction and resulting in additional cost. | $89,000 | N/A | No | Limited production and increased costs experienced as a result of a mismarked California Water Service main. |

TABLE 19-1
PACIFIC GAS AND ELECTRIC COMPANY
COST IMPACTS BY PROJECT
REPORTING PERIOD JANUARY 1, 2014 – MARCH 31, 2014

| Line # | New PSRS | Project Description | Region | Risk | Description | Cost Impact ($) | Schedule Impact (days) | >10% Variance | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 13 | 29275 | R-157 DFM-1603-01 REPL 1.42MI MP 0.07-1.30 PH7 | Ctr Vly | Changes After IFB | Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded excavation, added replacement/test length, etc.). | $150,000 | N/A | No | Unforeseen tie-in/close-out costs due to uncertainty associated with cost and scope of the demob and site restoration impacted cost. |
| 14 | 30094 | V-068A Valve Auto - Airport & Louise, 3V, Ph. 1 | Ctr Vly | Unknown Obstructions During Excavation | Potential interference with unmarked and unknown obstructions found during the construction excavation or incorrect drawings potentially delaying construction and resulting in additional cost. | $200,000 | N/A | No | During potholing it was discovered that it was necessary to relocate 2 sewer mains for the City of Manteca in order to be able to form the valve vault walls causing an increase in project costs. |
| 15 | 30094 | V-068A Valve Auto - Airport & Louise, 3V, Ph. 3 | Ctr Vly | Unexpected Condition of Pipe, Valves or Fittings | Pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear indications on the pipe. | N/A | 20 | No | Delay in delivery of charge controller from vendor. |
| 16 | 30094 | V-068A Valve Auto - Airport & Louise, 3V, Ph. 3 | Ctr Vly | Field Conditions Differ from Expected Conditions | As-built drawings and/or GIS were believed to be accurate according to records, but did not match what was actually encountered in the field. | $50,000 | N/A | No | Re-engineering necessary as a result of variance in underground facilities from prior as-builts. |
| 17 | 23597 | V-010 Valve Auto - Commercial Way, 3V, Ph. 1 | Ctr Cst | Changes After IFB | Any changes to the project scope that were excluded from or occurred after Issue for Bid (IFB) (e.g. additional sniff holes, expanded excavation, added replacement/test length, etc.). | $63,000 | N/A | No | Necessary expansion of excavation required additional traffic control and safety monitoring to maintain public safety near a pet hospital parking lot. |
| 18 | 23597 | V-010 Valve Auto - Commercial Way, 3V, Ph. 1 | Ctr Cst | Unknown Obstructions During Excavation | Potential interference with unmarked and unknown obstructions found during the construction excavation or incorrect drawings potentially delaying construction and resulting in additional cost. | N/A | 3 | No | A 3" abandoned pipe was encountered and cut away resulting in a delay. |
| 19 | 23597 | V-010 Valve Auto - Commercial Way, 3V, Ph. 1 | Ctr Cst | Unknown Obstructions During Excavation | Potential interference with unmarked and unknown obstructions found during the construction excavation or incorrect drawings potentially delaying construction and resulting in additional cost. | $20,000 | 5 | No | An 8" sewer line was encountered within 12" of the pipeline and encapsulated with concrete. The concrete was chipped away resulting in increased cost and schedule delay. |
| 20 | 23597 | V-010 Valve Auto - Commercial Way, 3V, Ph. 1 | Ctr Cst | Permitting | Unplanned permitting conditions, requirements and delays from various permitting agencies (e.g. limited working hours, limited access, delays in issuance, etc.). | $75,000 | 5 | No | It was necessary to relocate sniff holes which required traffic control, additional plate moving/placement, temporary AC and new AC placement. |
| 21 | 23597 | V-010 Valve Auto - Commercial Way, 3V, Ph. 1 | Ctr Cst | Clearance | Tight clearance windows may result in contractor working additional hours to meet the window for tie-in. Delays may also be experienced if a clearance window cannot be obtained when needed due to a variety of reasons. Also, additional labor and/or materials may be necessary to complete clearance. | $390,000 | 40 | No | T & R resources for valving and air mover operations were not available when needed causing delays to the project. Additional overhead costs were incurred by the vendor related to clearance dates moving out. Also, PG&E requested that the vendor supply the resources to operate and manage all air movers resulting in increased project costs. |
| 22 | 23597 | V-010 Valve Auto - Commercial Way, 3V, Ph. 1 | Ctr Cst | Unstable/Weak Soil | Unstable soils may require additional shoring which may cause delays to obtain and install. | $393,000 | 15 | No | Additional excavation and hauling were required for safety reasons to avoid unsafe islands of soil within the excavation. |
| 23 | 23597 | V-010 Valve Auto - Commercial Way, 3V, Ph. 1 | Ctr Cst | Clearance | Tight clearance windows may result in contractor working additional hours to meet the window for tie-in. Delays may also be experienced if a clearance window cannot be obtained when needed due to a variety of reasons. Also, additional labor and/or materials may be necessary to complete clearance. | $120,000 | 3 | No | Additional work in the form of an 8" stopple and sav-a-valve installation was required in Redwood City for L-101 clearance (1 of 4 clearances). |

TABLE 19-1
PACIFIC GAS AND ELECTRIC COMPANY
COST IMPACTS BY PROJECT
REPORTING PERIOD JANUARY 1, 2014 – MARCH 31, 2014

| Line # | New PSRS | Project Description | Region | Risk | Description | Cost Impact ($) | Schedule Impact (days) | >10% Variance | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 24 | 23597 | V-010 Valve Auto - Commercial Way, 3V, Ph. 1 | Ctr Cst | Changes After IFB | Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded excavation, added replacement/test length, etc.). | $70,000 | N/A | No | A change in weld procedure from cellulose to high-low was made due to the determination that the project was considered to be station work versus site work, resulting in cost increases. |
| 25 | 23597 | V-010 Valve Auto - Commercial Way, 3V, Ph. 1 | Ctr Cst | Changes After IFB | Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded excavation, added replacement/test length, etc.). | $62,000 | 10 | No | Additional excavation, backfill and pavement were required to relocate a 4" plastic gas main in conflict with the launcher/receiver vault. |
| 26 | 23597 | V-010 Valve Auto - Commercial Way, 3V, Ph. 1 | Ctr Cst | Changes After IFB | Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded excavation, added replacement/test length, etc.). | $72,000 | N/A | No | An 8" by-pass was added to the scope of work at the request of engineering to ensure service during the clearance. |
| 27 | 23597 | V-010 Valve Auto - Commercial Way, 3V, Ph. 1 | Ctr Cst | Field Conditions Differ from Expected Conditions | As-built drawings and/or GIS were believed to be accurate according to records, but did not match what was actually encountered in the field. | $20,000 | N/A | No | Hand excavation was required to locate and remove a 3/4" control piping and to locate an 8" pipe leading between two valves (V442 and V443) due to proximity to other facilities, resulting in increasing project costs. |
| 28 | 23597 | V-010 Valve Auto - Commercial Way, 3V, Ph. 1 | Ctr Cst | Clearance | Tight clearance windows may result in contractor working additional hours to meet the window for tie-in. Delays may also be experienced if a clearance window cannot be obtained when needed due to a variety of reasons. Also, additional labor and/or materials may be necessary to complete clearance. | $111,000 | 5 | No | Due to the actual location of existing valves V-442 and V-443, engineering requested two additional 8" PCFs in order to facilitate the necessary clearances on lines L-101 and L-147 for clearance 1 and 2. |
| 29 | 23597 | V-010 Valve Auto - Commercial Way, 3V, Ph. 1 | Ctr Cst | Safety and Security | Additional measures may be necessary to ensure the safety of personnel and the public around the job site. | $100,000 | 50 | No | The mandated shut down of L-147 delayed commissioning of this project until the line was brought back to operational pressure. |
| 30 | 24009 | I-001 L-131 MP 50.5-57.4 UPGRADE PH-1 | Ctr Cst | Clearance | Tight clearance windows may result in contractor working additional hours to meet the window for tie-in. Delays may also be experienced if a clearance window cannot be obtained when needed due to a variety of reasons. Also, additional labor and/or materials may be necessary to complete clearance. | $60,000 | 4 | Yes | Clearance at Irvington Station was a few days longer than anticipated due to additional excavation required and a section of pipe that had to be re-assessed post tie-in due to a failure to install a pin off tee during clearance |
| 31 | 24009 | I-001 L-131 MP 50.5-57.4 UPGRADE PH-1 | Ctr Cst | Clearance | Tight clearance windows may result in contractor working additional hours to meet the window for tie-in. Delays may also be experienced if a clearance window cannot be obtained when needed due to a variety of reasons. Also, additional labor and/or materials may be necessary to complete clearance. | $170,000 | N/A | Yes | Clearance at Irvington Station was a few days longer than anticipated due to additional excavation required and a section of pipe that had to be re-assessed post tie-in due to a failure to install a pin off tee during clearance |
| 32 | 24009 | I-001 L-131 MP 50.5-57.4 UPGRADE PH-1 | Ctr Cst | Changes After IFB | Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded excavation, added replacement/test length, etc.). | $120,000 | 12 | Yes | At the Milpitas site, multiple 3/4" lines were identified that needed to be re-located in order to install the launcher/receiver. |

TABLE 19-1
PACIFIC GAS AND ELECTRIC COMPANY
COST IMPACTS BY PROJECT
REPORTING PERIOD JANUARY 1, 2014 – MARCH 31, 2014

| Line # | New PSRS | Project Description | Region | Risk | Description | Cost Impact ($) | Schedule Impact (days) | >10% Variance | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 33 | 24009 | I-001 L-131 MP 50.5-57.4 UPGRADE PH-1 | Ctr Cst | Cultural Resource Impacts | Discovery of Native American artifacts at the construction site may delay construction and result in increased project cost. | $300,000 | 24 | Yes | Cultural resources were found at the job site resulting in schedule delays and cost impacts while the site was inspected and the issue remediated. Full time monitors were on site for the remaining construction duration. Crews were primarily relocated while this issue was resolved to reduce the cost impact. |
| 34 | 24009 | I-001 L-131 MP 50.5-57.4 UPGRADE PH-1 | Ctr Cst | Weather Impacts | Potential construction delays and resulting additional costs due to rain days. Potential rain interaction with species (e.g. CTS breading migration) delaying construction and increasing cost. | $300,000 | 12 | Yes | As a result of the cultural resource issue, the final clearance was delayed until December. Clearance was then further delayed due to the leaking valve (captured in a different line item). Clearance scheduling constraints/weather impacts pushed clearance to January 2014. |
| 35 | 24009 | I-001 L-131 MP 50.5-57.4 UPGRADE PH-1 | Ctr Cst | Unexpected Condition of Pipe, Valves or Fittings | Pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear indications on the pipe. | $750,000 | 36 | Yes | When the weather was clear in December an attempt to take clearance was made, but a valve was found to be leaking which required repair thus increasing project costs and delaying tie-in. |
| 36 | 24009 | I-001 L-131 MP 50.5-57.4 UPGRADE PH-1 | Ctr Cst | Changes After IFB | Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded excavation, added replacement/test length, etc.). | $451,000 | N/A | Yes | Engineering design changes at Irvington station resulted in a variety of additional work. |
| 37 | 24009 | I-001 L-131 MP 50.5-57.4 UPGRADE PH-1 | Ctr Cst | Low Estimate | Specific cost assumptions in the Job Estimate proved to be inaccurate. | $580,000 | N/A | Yes | Extended duration between estimation and construction start contributed to higher contractor costs. |
| 38 | 24009 | I-001 L-131 MP 50.5-57.4 UPGRADE PH-1 | Ctr Cst | Changes After IFB | Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded excavation, added replacement/test length, etc.). | $553,000 | N/A | Yes | It was necessary to replace an additional valve due to its proximity to an originally scoped valve replacement and an insulating joint. Any potential schedule delays were absorbed by the concurrent cultural resource impacts issue and would be difficult to estimate. |
| 39 | 24009 | I-001 L-131 MP 50.5-57.4 UPGRADE PH-1 | Ctr Cst | Unknown Obstructions During Excavation | Potential interference with unmarked and unknown obstructions found during the construction excavation or incorrect drawings potentially delaying construction and resulting in additional cost. | $380,000 | N/A | Yes | Removal of a basement of an old building encountered along the entire length of the excavation. |
| 40 | 24009 | I-001 L-131 MP 50.5-57.4 UPGRADE PH-1 | Ctr Cst | Dewatering | A high water table is encountered resulting in unplanned dewatering costs and delays in construction. | $717,000 | N/A | Yes | Costs were incurred related to dewatering and structural shoring at both the Milpitas and Irvington site locations. |
| 41 | 31979 | RT-030 STUB8663-STUB8664-STUB8665-NV REPL PH1 | North | Changes After IFB | Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded excavation, added replacement/test length, etc.). | $15,000 | N/A | No | Permit revision included deeper and longer paving requirement. |
| 42 | 31979 | RT-030 STUB8663-STUB8664-STUB8665-NV REPL PH1 | North | Safety and Security | Additional measures may be necessary to ensure the safety and security of equipment, personnel and the public around the job site. | $22,000 | N/A | No | Planned night work costs did not anticipate need for California Highway Patrol to provide additional site safety. |
| 43 | 31979 | RT-030 STUB8663-STUB8664-STUB8665-NV REPL PH1 | North | Productivity Impacts | Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation. | $1,000 | N/A | No | It was necessary to alter the steel plate configuration. |

TABLE 19-1
PACIFIC GAS AND ELECTRIC COMPANY
COST IMPACTS BY PROJECT
REPORTING PERIOD JANUARY 1, 2014 – MARCH 31, 2014

| Line # | New PSRS | Project Description | Region | Risk | Description | Cost Impact ($) | Schedule Impact (days) | >10% Variance | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 44 | 31998 | RT-043 RT-043 DREG4548-SI REPL PH1 | North | Changes After IFB | Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded excavation, added replacement/test length, etc.). | $10,000 | 1 | No | Engineering design changed for a different pressure control fitting (PCF). |
| 45 | 31998 | RT-043 RT-043 DREG4548-SI REPL PH1 | North | Mercury Cleaning - Pipe Replacement | Cleaning Hg from piping associated with asset retirement. | $5,500 | 1 | No | 40ft of pipe was removed due to positive mercury test. |
| 46 | 32000 | RT-045 STUB6039-SI REPL PH1 | North | Field Conditions Differ from Expected Conditions | As-built drawings and/or GIS were believed to be accurate according to records, but did not match what was actually encountered in the field. | $5,300 | N/A | No | It was necessary to remove a tree at the project site. |
| 47 | 33217 | RT-010 STUB9046-DI REPL EXPENSE PH1 33217/31957 | Bay | Unexpected Condition of Pipe, Valves or Fittings | Pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear indications on the pipe. | $57,176 | N/A | No | Construction scheduled accelerated/compressed to 24/7 to address leak resulting from a stub detaching from an elbow. |
| 48 | 31999 | RT-044 DREG4567-SI REPL PH1 | North | Field Conditions Differ from Expected Conditions | As-built drawings and/or GIS were believed to be accurate according to records, but did not match what was actually encountered in the field. | $9,000 | N/A | Yes | Actual field conditions required additional curb/sidewalk restoration. |
| 49 | 31978 | RT-029 DREG5483-NV REPL PH1 | North | Dewatering | A high water table is encountered resulting in unplanned dewatering costs and delays in construction. | $6,000 | N/A | No | Dewatering was necessary, resulting in cost increases. |
| 50 | 31978 | RT-029 DREG5483-NV REPL PH1 | North | Productivity Impacts | Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation. | $20,000 | N/A | No | Clean soil required hauling to landfill after assumed local disposal was determined not to be possible. |
| 51 | 31978 | RT-029 DREG5483-NV REPL PH1 | North | Mercury Cleaning - Pipe Replacement | Cleaning Hg from piping associated with asset retirement. | $16,000 | 3 | No | 200 ft. of pipe was removed due to positive mercury test. |
| 52 | 31978 | RT-029 DREG5483-NV REPL PH1 | North | Safety and Security | Additional measures may be necessary to ensure the safety and security of equipment, personnel and the public around the job site. | $9,000 | N/A | No | It was determined that due to the site location, additional traffic control and overnight security were necessary. |
| 53 | 31993 | RT-047 RT-047 DCUST2473-SJ REPL PH1 | Ctr Cst | Permitting | Unplanned permitting conditions, requirements and delays from various permitting agencies (e.g. limited working hours, limited access, delays in issuance, etc.). | N/A | 15 | N/A | Acquisition of the city permit took longer than anticipated. |
| 54 | 31771 | T-215-13 L-400 TEST MI MP 297.86-298.84 PH1 | Bay | Changes After IFB | Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded excavation, added replacement/test length, etc.). | $245,741 | N/A | No | Additional welds and excavation were necessary. Also, a reinforcement pad was installed and by-pass redesigned from 8" to 16" which resulted in cost increases. |
| 55 | 31771 | T-215-13 L-400 TEST MI MP 297.86-298.84 PH1 | Bay | Unexpected Condition of Pipe, Valves or Fittings | Pipe, valves or fittings may be leaking or faulty requiring additional work to repair or replace them, including linear indications on the pipe. | $263,904 | N/A | No | It was necessary to remove some pipe coating, repair leaking valves and flanges and conduct an additional strength test as a result of the pipe conditions. |
| 56 | 31771 | T-215-13 L-400 TEST MI MP 297.86-298.84 PH1 | Bay | Productivity Impacts | Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation. | $30,000 | N/A | No | Stand-by time was experienced associated with material shortage and welding procedure. |
| 57 | 24027 | I-060 L-101(S) MP 0.00-11.62 ILI Upgrade & Analysis PH1 | North | Environmental/Species Impacts | Potential delays in construction due to the presence of protected or endangered species at the construction site. | $9,784 | N/A | No | The on-site Environmental Field Specialist and Land Planner changed the work location to avoid burrowing owls. |
| 58 | 24027 | I-060 L-101(S) MP 0.00-11.62 ILI Upgrade & Analysis PH1 | North | Productivity Impacts | Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation. | $90,000 | N/A | No | The original contractor was unable to meet schedule requirements which increased the demands of T & R. |

TABLE 19-1
PACIFIC GAS AND ELECTRIC COMPANY
COST IMPACTS BY PROJECT
REPORTING PERIOD JANUARY 1, 2014 – MARCH 31, 2014

| Line # | New PSRS | Project Description | Region | Risk | Description | Cost Impact ($) | Schedule Impact (days) | >10% Variance | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 59 | 24027 | I-060 L-101(S) MP 0.00-11.62 ILI Upgrade & Analysis PH1 | North | Productivity Impacts | Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation. | $171,895 | N/A | No | It was necessary to design and purchase a new tool from an overseas contractor because this line operates at a pressure that is much lower than the pressure at which normal pigs operate. |
| 60 | 24027 | I-060 L-101(S) MP 0.00-11.62 ILI Upgrade & Analysis PH1 | North | Productivity Impacts | Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation. | $30,000 | 2 | No | The MFL tool purchased from the overseas vendor was stuck in shipping at the Port of Oakland demanding the use of an additional two contingency days. |
| 61 | 31951 | RT-004 DREG5148-CC REPL PH1 | Ctr Cst | Weather Impacts | Potential construction delays and resulting additional costs due to rain days. Potential rain interaction with species (e.g. CTS breading migration) delaying construction and increasing cost. | N/A | 5 | No | The rain in April is delaying the backfilling and paving tasks for closing out the project. |
| 62 | 31969 | RT-021 DREG4872-MI REPL PH1 | Ctr Cst | Productivity Impacts | Potential impacts to contractor productivity caused by multiple issues which may result in contractor moving to another construction location on-site or other methods of mitigation. | N/A | 2 | No | A delay was experienced as a result of a delay on a preceding sequenced project (RT-023). |
| 63 | 31971 | RT-023 GCUST5901-MI REPL PH1 | Ctr Cst | Unknown Obstructions During Excavation | Potential interference with unmarked and unknown obstructions found during the construction excavation or incorrect drawings potentially delaying construction and resulting in additional cost. | $48,000 | 3 | Yes | The pipe along the fence line was filled with a lot of slurry which needed to be excavated prior to finishing conversion to distribution. |
| 64 | 31971 | RT-023 GCUST5901-MI REPL PH1 | Ctr Cst | Field Conditions Differ from Expected Conditions | As-built drawings and/or GIS were believed to be accurate according to records, but did not match what was actually encountered in the field. | $1,867 | N/A | Yes | Original schematics did not show the series of shorts correctly. There was a discrepancy of the length of a section between two bends on the side of the station closest to a customer location. |
| 65 | 31971 | RT-023 GCUST5901-MI REPL PH1 | Ctr Cst | Field Conditions Differ from Expected Conditions | As-built drawings and/or GIS were believed to be accurate according to records, but did not match what was actually encountered in the field. | $972 | N/A | Yes | Original schematics did not show the position of the PCF correctly. The mitigation action was to install an M2 fitting and use that to route the gas appropriately. |
| 66 | 29247 | R-037 L-172A REPL 3.06MI MP 75.43-78.53 PH1 | North | Unknown Obstructions During Excavation | Potential interference with unmarked and unknown obstructions found during the construction excavation or incorrect drawings potentially delaying construction and resulting in additional cost. | $900,000 | 3 | No | A 66" storm drain was encountered which resulted in a redesign to move around it at one location resulting in cost increases and a schedule delay. Additionally, numerous (approximately 39) other unknown utilities were encountered resulting in additional cost increases. |
| 67 | 29247 | R-037 L-172A REPL 3.06MI MP 75.43-78.53 PH1 | North | Contaminated Soil | Contaminated soil found on a site during excavation. Potential costs associated with contaminated soil handling, storage, hauling and disposal. | $17,000 | N/A | No | Despite planning for proper handling of contaminated soil, the costs were higher than anticipated. |
| 68 | 29247 | R-037 L-172A REPL 3.06MI MP 75.43-78.53 PH1 | North | Mercury Cleaning - Pipe Replacement | Cleaning Hg from piping associated with asset retirement. | $500,000 | N/A | No | Cleaning was required which had not been anticipated. Sand jetting was used instead of pigging which reduced the potential cost impact. |
| 69 | 29247 | R-037 L-172A REPL 3.06MI MP 75.43-78.53 PH1 | North | Surveying and Potholing | | $607,000 | 6 | No | Additional costs to mark and locate other utilities were incurred. |
| 70 | 29247 | R-037 L-172A REPL 3.06MI MP 75.43-78.53 PH1 | North | Field Conditions Differ from Expected Conditions | As-built drawings and/or GIS were believed to be accurate according to records, but did not match what was actually encountered in the field. | $747,000 | 6 | No | Casings that run under I-80 and the railroad as-builts proved to be incorrect so additional excavation, permitting and re-engineering were necessary. Also, a tap had to be re-engineered. An additional 100 feet of pipe was installed, cleaned and removed which also required additional excavation. |

TABLE 19-1
PACIFIC GAS AND ELECTRIC COMPANY
COST IMPACTS BY PROJECT
REPORTING PERIOD JANUARY 1, 2014 – MARCH 31, 2014

| Line # | New PSRS | Project Description | Region | Risk | Description | Cost Impact ($) | Schedule Impact (days) | >10% Variance | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 71 | 29247 | R-037 L-172A REPL 3.06MI MP 75.43-78.53 PH1 | North | Permitting | Unplanned permitting conditions, requirements and delays from various permitting agencies (e.g. limited working hours, limited access, delays in issuance, etc.). | $1,490,400 | 70 | No | Delayed receipt of city permit resulted in an increase in construction costs and delays. The permit also included additional paving requirements resulting in additional costs and schedule delays. |
| 72 | 29247 | R-037 L-172A REPL 3.06MI MP 75.43-78.53 PH1 | North | Errors and Omissions | Impacts resulting from contractor or sub-contractor negligence or oversight related to the work, product or property. | $1,753,400 | N/A | No | A waterline was broken, repaired and then the repair failed which flooded the excavation so re-excavation was required for 1400 ft. An additional crew was brought in to mitigate a schedule delay. |
| 73 | 29247 | R-037 L-172A REPL 3.06MI MP 75.43-78.53 PH1 | North | Unstable/Weak Soil | Unstable soils may require additional shoring which may cause delays to obtain and install. | $3,381,600 | N/A | No | Additional shoring and work was required related to weak soil resulting in cost increases. |
| 74 | 29247 | R-037 L-172A REPL 3.06MI MP 75.43-78.53 PH1 | North | Dewatering | A high water table is encountered resulting in unplanned dewatering costs and delays in construction. | $816,600 | N/A | No | Dewatering was necessary, resulting in cost increases. |
| 75 | 29247 | R-037 L-172A REPL 3.06MI MP 75.43-78.53 PH1 | North | Weather Impacts | Potential construction delays and resulting additional costs due to rain days. Potential rain interaction with species (e.g. CTS breading migration) delaying construction and increasing cost. | $200,000 | 7 | No | Weather delays were experienced as a result of the project completing during winter months. |
| 76 | 29247 | R-037 L-172A REPL 3.06MI MP 75.43-78.53 PH1 | North | Errors and Omissions | Impacts resulting from contractor or sub-contractor negligence or oversight related to the work, product or property. | $75,000 | N/A | No | While completing post tie-in work, the construction crew attempted to segment a section of pipeline that was assumed to be the recently retired line 172A. During the cutting process a pin hole leak was created, resulting in a loss of containment. After researching as-built plans, plats, and other GIS information, it was concluded that the line that had been cut was Line 116, which at the time was operating at 680 PSIG. The line was isolated and a 2" save-a-valve was welded over the pin hole. Mark and Locate re-marked both Lines 116 |
| 77 | 26041 | R-056 L-220 REPL 4.93 MI MP 20.84-31.65 PH1 | North | Contaminated Soil | Contaminated soil found on a site during excavation. Potential costs associated with contaminated soil handling, storage, hauling and disposal. | $14,000 | N/A | No | Some additional costs related to contaminated soil were incurred. |
| 78 | 26041 | R-056 L-220 REPL 4.93 MI MP 20.84-31.65 PH1 | North | Unknown Obstructions During Excavation | Potential interference with unmarked and unknown obstructions found during the construction excavation or incorrect drawings potentially delaying construction and resulting in additional cost. | $48,000 | N/A | No | Unmarked utilities were encountered resulting in additional costs to work around. |
| 79 | 26041 | R-056 L-220 REPL 4.93 MI MP 20.84-31.65 PH1 | North | Mercury Cleaning - Pipe Replacement | Cleaning Hg from piping associated with asset retirement. | $100,000 | N/A | No | Sand jetting was used instead of pigging in order to reduce the cost impact. |
| 80 | 26041 | R-056 L-220 REPL 4.93 MI MP 20.84-31.65 PH1 | North | Clearance | Tight clearance windows may result in contractor working additional hours to meet the window for tie-in. Delays may also be experienced if a clearance window cannot be obtained when needed due to a variety of reasons. Also, additional labor and/or materials may be necessary to complete clearance. | $100,000 | 36 | No | By-passes were built instead of using LNG to support customer loads during clearance as a cost savings measure and to avoid scheduling conflicts with LNG equipment. However, the project was delayed until January 2014 because clearance resources were not available and there were weather delays that prevented |
| 81 | 26041 | R-056 L-220 REPL 4.93 MI MP 20.84-31.65 PH1 | North | Field Conditions Differ from Expected Conditions | As-built drawings and/or GIS were believed to be accurate according to records, but did not match what was actually encountered in the field. | $70,000 | N/A | No | Multiple utilities (both PG&E and non-PG&E) were encountered. Also, a line was marked that was not present |
| 82 | 26041 | R-056 L-220 REPL 4.93 MI MP 20.84-31.65 PH1 | North | Changes After IFB | Any changes to the project scope that were excluded from or occurred after IFB (e.g. additional sniff holes, expanded excavation, added replacement/test length, etc.). | $450,000 | N/A | No | Additional paving costs were incurred due to requests by the cities of Davis and Woodland. |

TABLE 19-1
PACIFIC GAS AND ELECTRIC COMPANY
COST IMPACTS BY PROJECT
REPORTING PERIOD JANUARY 1, 2014 – MARCH 31, 2014

| Line # | New PSRS | Project Description | Region | Risk | Description | Cost Impact ($) | Schedule Impact (days) | >10% Variance | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 83 | 31993 | RT-047 RT-047 DCUST2473-SJ REPL PH1 | Ctr Cst | Opportunity: Productivity Impacts | It may be possible to increase productivity rates thus condensing the project schedule. | $43,000 | 3 | | The productivity rate was higher than anticipated so work completed in just 2 days. |
| 84 | 30094 | V-068A Valve Auto - Airport & Louise, 3V, Ph. 3 | Ctr Vly | Opportunity: Productivity Impacts | It may be possible to increase productivity rates thus condensing the project schedule. | $310,000 | N/A | No | Productivity and work efficiency were higher than anticipated. |

TABLE 20-1
PACIFIC GAS AND ELECTRIC COMPANY
PSEP COSTS, AUTHORIZED AND SHAREHOLDER-FUNDED AMOUNTS BY ACTIVITY

| | Actual Costs | | | | | | | | Authorized[2] | Update Application[3] | | | | | | Shareholder Funded per Update Application[4] | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSEP Expense** | **2011** | **2012** | **2013** | **2014 YTD** | **2014 JAN** | **2014 FEB** | **2014 MAR** | **PSEP Costs to Date** | **2011-2014 PSEP Atorized** | **2011-2014 PSEP Updated** | **2011 Updated** | **2012 Updated** | **2013 Updated** | **2014 Updated** | **ITD Shareholder Funded** | **2011** | **2012** | **2013** | **2014 YTD** | **2014 JAN** | **2014 FEB** | **2014 MAR** |
| **Pipeline Modernization** | | | | | | | | | | | | | | | | | | | | | | |
| Pipe Replacement | 0.0 | 0.0 | 0.1 | 0.3 | 0.0 | 0.0 | 0.3 | 0.4 | | | | | | | | | | | | | | |
| In Line Inspection | 0.0 | 0.0 | 2.4 | 2.0 | 0.2 | 1.3 | 0.5 | 4.4 | | | | | | | | | | | | | | |
| 1 Strength Test | | | | | | | | | | | | | | | | | | | | | | |
| 5,6 Pre-1955 Installation | | | 125.1 | 5.5 | 1.4 | 1.6 | 2.6 | | | | | | | | | | | | | | | |
| 5,6 Post-1955 Installation | | | 33.9 | 8.5 | (0.0) | 1.6 | 7.0 | | | | | | | | | | | | | | | |
| Strength Test Total | 228.2 | 130.7 | 159.0 | 14.0 | 1.4 | 3.1 | 9.5 | 531.9 | | | | | | | | | | | | | | |
| Eng Cond / Fatigue Analysis | 0.0 | 0.0 | 0.3 | 0.2 | 0.0 | 0.1 | 0.1 | 0.5 | | | | | | | | | | | | | | |
| **Pipeline Modernization Total** | 228.2 | 130.7 | 161.9 | 16.5 | 1.7 | 4.5 | 10.3 | 537.2 | 149.5 | 118.3 | 0.0 | 2.3 | 62.3 | 53.6 | 459.2 | 228.2 | 128.4 | 99.5 | 3.1 | (2.8) | 0.0 | 5.8 |
| **Pipeline Records Integration** | | | | | | | | | | | | | | | | | | | | | | |
| MAOP | 90.5 | 120.3 | 29.3 | 0.3 | 0.1 | (0.1) | 0.2 | 240.3 | | | | | | | | | | | | | | |
| Mariner | 1.2 | 3.8 | 1.4 | 0.4 | 0.1 | 0.1 | 0.2 | 6.8 | | | | | | | | | | | | | | |
| **Pipeline Records Integration Total** | 91.6 | 124.1 | 30.7 | 0.7 | 0.2 | 0.1 | 0.4 | 247.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 247.1 | 91.6 | 124.1 | 30.7 | 0.7 | 0.2 | 0.1 | 0.4 |
| **Valve Automation** | 0.0 | 0.5 | 1.9 | 0.4 | 0.1 | 0.2 | 0.1 | 2.8 | 6.7 | 6.7 | 0.0 | 0.1 | 3.0 | 3.6 | (0.6) | 0.0 | 0.4 | (1.1) | 0.1 | 0.0 | 0.0 | 0.1 |
| **Interim Safety Measures** | 0.0 | 2.4 | 2.3 | 0.2 | 0.0 | 0.0 | 0.2 | 4.9 | 2.1 | 2.1 | 0.0 | 0.0 | 1.1 | 1.0 | 3.6 | 0.0 | 2.4 | 1.2 | (0.0) | (0.1) | (0.0) | 0.1 |
| **PMO** | 5.0 | 6.5 | 3.5 | 1.5 | 1.1 | 0.7 | (0.4) | 16.5 | 6.6 | 6.6 | 0.0 | 0.1 | 3.3 | 3.2 | 12.3 | 5.0 | 6.4 | 0.2 | 0.6 | 0.8 | 0.4 | (0.6) |
| **Other** | 6.8 | 6.3 | 5.2 | (0.1) | 0.2 | 1.0 | (1.3) | 18.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.2 | 6.8 | 6.3 | 5.2 | (0.1) | 0.2 | 1.0 | (1.3) |
| **Total PSEP Expense** | **331.7** | **270.4** | **205.4** | **19.1** | **3.2** | **6.6** | **9.3** | **826.6** | **164.9** | **133.7** | **0.0** | **2.5** | **69.7** | **61.4** | **739.6** | **331.7** | **267.9** | **135.7** | **4.4** | **(1.7)** | **1.6** | **4.4** |
| **PSEP Capital** | | | | | | | | | | | | | | | | | | | | | | |
| **Pipeline Modernization** | | | | | | | | | | | | | | | | | | | | | | |
| 1 Pipeline Replacement | | | | | | | | | | | | | | | | | | | | | | |
| 5 Pipeline Replacement less Post-1955 Strength Test Cost | 11.9 | 226.3 | 310.1 | 30.2 | 11.2 | 8.4 | 10.7 | 578.5 | | | | | | | | | | | | | | |
| 5 Post-1955 Strength Test Cost | 0.0 | 2.1 | 2.2 | 3.3 | 0.0 | 1.8 | 1.5 | 7.6 | | | | | | | | | | | | | | |
| Pipeline Replacement Total | 11.9 | 228.4 | 312.3 | 33.5 | 11.2 | 10.2 | 12.1 | 586.0 | | | | | | | | | | | | | | |
| Strength Test Related | 5.9 | 12.3 | 28.8 | 1.5 | 0.1 | 0.2 | 1.1 | 48.4 | | | | | | | | | | | | | | |
| In Line Inspection Retrofitting | 0.6 | 16.0 | 36.8 | 3.6 | 1.7 | 1.1 | 0.8 | 57.0 | | | | | | | | | | | | | | |
| **Pipeline Modernization Total** | 18.4 | 256.7 | 377.8 | 38.5 | 13.0 | 11.5 | 14.1 | 691.4 | 852.5 | 614.9 | 25.3 | 148.6 | 296.0 | 145.0 | 76.5 | 0.0 | 2.1 | 35.9 | 38.5 | 13.0 | 11.5 | 14.1 |
| **Pipeline Records Integration** | | | | | | | | | | | | | | | | | | | | | | |
| MAOP | 1.7 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.9 | | | | | | | | | | | | | | |
| Mariner | 4.9 | 29.3 | 37.1 | 6.7 | 2.0 | 1.8 | 2.9 | 78.0 | | | | | | | | | | | | | | |
| **Pipeline Records Integration Total** | 6.5 | 29.6 | 37.1 | 6.7 | 2.0 | 1.8 | 2.9 | 79.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 79.9 | 6.5 | 29.6 | 37.1 | 6.7 | 2.0 | 1.8 | 2.9 |
| 1 **Valve Automation** | 13.0 | 29.5 | 51.9 | 9.9 | 2.0 | 2.6 | 5.2 | 104.3 | 129.0 | 129.0 | 13.7 | 38.9 | 51.6 | 24.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Interim Safety Measures** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **PMO** | 2.3 | 2.1 | 8.8 | 1.4 | 0.0 | 0.0 | 1.4 | 14.6 | 22.3 | 22.3 | 3.0 | 6.5 | 6.5 | 6.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Other** | 0.0 | 3.0 | 0.0 | 1.2 | 0.6 | 0.3 | 0.3 | 4.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 | 0.0 | 3.0 | 0.0 | 1.2 | 0.6 | 0.3 | 0.3 |
| **Total PSEP Capital** | **40.2** | **320.8** | **475.7** | **57.7** | **17.7** | **16.3** | **23.8** | **894.4** | **1003.8** | **766.2** | **42.0** | **194.0** | **354.1** | **176.1** | **160.6** | **6.5** | **34.6** | **73.0** | **46.5** | **15.6** | **13.6** | **17.2** |

1 StanPac included in Actual and Forecasted Costs and Authorized Recovery
2 Authorized Amount from D-12.12.030
3 Update Application includes October 2013 Updated Recovery to the Pipe Modernization Program
4 Shareholder Funded Portion has been updated to reflect revenue numbers consistent with the Update Application
5 Pre/Post 1955 spend has been updated based on MAOP Validation
6 Net change to Q4 2013 Compliance Report of zero. However, a +/-shift of $245k to post/pre 1955 Strength Test in actuals of Dec 2013

TABLE 22-2
PACIFIC GAS AND ELECTRIC COMPANY
TOTAL MILEAGE OF PIPE REPLACED - FORECASTED AND ACTUAL
JANUARY 1, 2014 – MARCH 31, 2014

| Line # | PSEP Filing PSRS | New PSRS | Project Description | Miles Completed | Line | MP1 | MP2 | City | HCA | Class Code | Clearance Date | Tie-in Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 26041 | 26041 | R-056 L-220 REPL 4.93 MI MP 20.84-31.65 PH1 | 4.93 | L-220 | 20.84 | 31.65 | Davis | Yes | 1,2,3,Split | 11/12/2013 | 1/10/2014 |
| 2 | 29247 | 29247 | R-037 L-172A REPL 3.06MI MP 75.43-78.53 PH1 | 3.07 | L-172A | 75.43 | 78.53 | West Sacramento | Yes | 3,Split | 1/21/2014 | 1/31/2014 |
| 3 | 29275 | 29275 | R-157 DFM-1603-01 REPL 1.42MI MP 0.07-1.30 PH1 | 1.40 | DFM-1603-01 | 0.07 | 1.30 | Lathrop | Yes | 3,SPLIT | 3/12/2014 | 3/14/2014 |
| 4 | 31822 | 31822 | R-207 L-177A REPL 0.01MI MP 26.55-26.55 PH1 | 0.00 | L-177A | 26.55 | 26.55 | Corning | Yes | 2 | 3/19/2014 | 3/20/2014 |
| 5 | 31951 | 31951 | RT-004 DREG5148-CC REPL PH1 | 0.01 | DREG5148 | | | Santa Cruz | No | 3 | 3/27/2014 | 3/27/2014 |
| 6 | 31969 | 31969 | RT-021 DREG4872-MI REPL PH1 | 0.01 | DREG4872 | | | San Lorenzo | No | 3 | 3/14/2014 | 3/14/2014 |
| 7 | 31970 | 31970 | RT-022 DREG4873-MI REPL PH1 | 0.01 | DREG4873 | | | San Leandro | No | 3 | 1/24/2014 | 1/24/2014 |
| 8 | 31971 | 31971 | RT-023 GCUST5901-MI REPL PH1 | 0.05 | GCUST5901 | | | San Leandro | Yes | 3 | 3/5/2014 | 3/5/2014 |
| 9 | 31978 | 31978 | RT-029 DREG5483-NV REPL PH1 | 0.03 | DREG5483 | | | Redding | No | 3 | 1/21/2014 | 1/21/2014 |
| 10 | 31979 | 31979 | RT-030 STUB8663-STUB8664-STUB8665-NV REPL PH1 | 0.00 | STUB8663 | | | Gridley | Yes | 3 | 3/7/2014 | 3/8/2014 |
| 11 | 31998 | 31998 | RT-043 DREG4548-SI REPL PH1 | 0.00 | DREG4548 | | | Yuba City | No | 3 | 2/13/2014 | 2/13/2014 |
| 12 | 31999 | 31999 | RT-044 DREG4567-SI REPL PH1 | 0.01 | DREG4567 | | | Wheatland | No | 3 | 2/24/2014 | 2/24/2014 |
| 13 | 32000 | 32000 | RT-045 STUB6039-SI REPL PH1 | 0.00 | STUB6039 | | | Live Oak | No | 3 | 3/18/2014 | 3/18/2014 |
| 14 | 32001 | 32001 | RT-046 STUB6041-SI REPL PH1 | 0.00 | STUB6041 | | | Live Oak | 0 | | 1/24/2014 | 1/24/2014 |
| 15 | 32012 | 32012 | RT-061 DREG4420-YO REPL PH1 | 0.02 | DREG4420 | | | Madera | No | 3 | 3/17/2014 | 3/17/2014 |
| 16 | N/A | 33217 | RT-010 STUB9046-DI REPL EXPENSE PH1 | 0.00 | STUB9046 | | | Brentwood | No | 3 | 3/26/2014 | 3/28/2014 |
| 17 | 23689 | 31993 | RT-047 DCUST2473-SJ REPL PH1 | 0.01 | DCUST2473 | | | Morgan Hill | No | 3 | 2/20/2014 | 2/20/2014 |

TABLE 23-2
PACIFIC GAS AND ELECTRIC COMPANY
TOTAL MILEAGE OF PIPE STRENGTH TESTED - FORECASTED AND ACTUAL
JANUARY 1, 2014 – MARCH 31, 2014

| Line # | PSEP Filing PSRS | New PSRS | Project Description | Miles Completed | Line | MP1 | MP2 | City | HCA | Class Code | Clearance Date | Tie-in Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24202 | 30907 | T-300-14, Line L-2, Los Banos | 0.86 | L-002 | 75.60 | 76.46 | Los Banos | Yes | 1 | 2/24/2014 | 3/11/2014 |
| 2 | 23539 | 31771 | T-215-13, Line L-400, Antioch | 0.997 | L-400 | 297.84 | 298.84 | Oakley | Yes | 3 | 3/12/2014 | 3/26/2014 |

TABLE 25-1
PACIFIC GAS AND ELECTRIC COMPANY
COMPLETED VALVE AUTOMATION AND IN-LINE INSPECTION PROJECTS
JANUARY 1, 2014 – MARCH 31, 2014

| Line # | PSEP Filing PSRS | New PSRS | Project Description | Miles Completed / Valves Automated | Line | MP1 | MP2 | City | HCA | Class Code | Clearance Date | Tie-in Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24009 | 24009 | I-001 L-131 MP 50.5-57.4 UPGRADE PH-1 | 6.70 | L-131 | 50.50 | 57.40 | Fremont | Yes | 3 | 4/10/2013 | 1/15/2014 |
| 2 | 24027 | 24027 | I-060 L-101(S) MP 0.00-11.62 ILI & Analysis PH1 | 12.08 | L-101 | 0.00 | 11.62 | Milpitas | Yes | 1,3 | 2/19/2014 | 3/1/2014 |
| 3 | 23597 | 23597 | V-010 Valve Auto - Commercial Way, 3V, Ph. 1 | 3 | L-101 | | | San Carlos | N/A | N/A | 6/27/2013 | 1/24/2014 |
| 4 | N/A | 30094 | V-068A Valve Auto - Airport & Louise, 3V, Ph. 1 | 3 | L-108 | | | Manteca | N/A | N/A | | 1/27/2014 |
| 5 | N/A | 32860 | V-119 Valve Auto - Davis Meter Reg Station | 1 | DFM-1622-01 | | | Davis | N/A | N/A | 8/8/2013 | 2/19/2014 |

TABLE 26-1
PACIFIC GAS AND ELECTRIC COMPANY
FORECAST PROJECTS NOT COMPLETED OR REPLACED BY HIGHER PRIORITY PROJECTS
REPORTING PERIOD January 1, 2014 – MARCH 31, 2014

| Line # | PSEP Filing PSRS | New PSRS | Project Description | PSEP Filing Year | Current Status | Comments |
|---|---|---|---|---|---|---|
| 1 | 23638 | 23638 | VALVE AUTO - THORTON AVE PH. 2 | 2013 | Removed | Delayed from 2013 to 2014 to allow more time for engineering around construction complexities due to location within the vicinity of I-880. Then removed from PH 1 to PH 2 due to the proposed replacement and relocation of L-153 via a horizontal directional drill (HDD) beneath I-880 and the Railroad overcrossing just south of this location in 2015. |
| 2 | 27625 | 27625 | *CANC* DFM-1815-02 TEST 10.02MI MP 6.50-16.85 | 2013 | Removed | Cancelled due to engineering recommends 6.46 miles of pipe between MP 6.50 & 16.85 (37 segments) transfer from strength test to replacement due to elevated risk of rupture and loss of containment of test water along Caltrans right-of-way in environmentally sensitive areas. |
| 3 | 23535 | 32118/29718 | L-021F REPL 0.01MI MP 13.90-13.92 PH1 | 2012 | Removed | Pipe moved from Test (PSRS 23535) to Replace (PSRS 32118) and then cancelled out of (PSRS 29718). Added as new replacement project from filed test project for efficiency reasons then delayed from 2012 to 2014 and ultimately removed from PH 1 to a future phase to coordinate with ILI upgrades planned at this location. |