BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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 (Filed February 24, 2011)

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

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Dated: January 30, 2014

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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 October 1, 2013 through December 31, 2013.

Respectfully Submitted,

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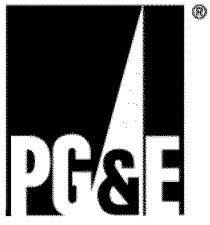
PIPELINE SAFETY ENHANCEMENT PLAN (PSEP)
COMPLIANCE REPORT

NO. 2013-04

REPORTING PERIOD
OCTOBER 1, 2013 – DECEMBER 31, 2013

IN COMPLIANCE WITH CPUC DECISION 12-12-030

SUBMITTED JANUARY 30, 2014



PACIFIC GAS AND ELECTRIC COMPANY
PIPELINE SAFETY ENHANCEMENT PLAN (PSEP)
COMPLIANCE REPORT
NO. 2013-04
REPORTING PERIOD
OCTOBER 1, 2013 – DECEMBER 31, 2013
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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 (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. 2013-04[1] is submitted in compliance with the instructions set forth in Attachment D and reflects the reporting period of October 1, 2013 through December 31, 2013. 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 Rulemaking 11-02-019. It will also be posted on the PG&E website at http://apps.pge.com/regulation.[2]

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1 This report is labeled "No. 2013-04," to designate that it covers the reporting period ending the fourth quarter of 2013. The first PSEP Compliance Report No. 2013-01 covered the reporting period from program inception (April 1, 2011) through the first quarter of 2013.

2 Click on "Search" under Public Case Documents. Select "Gas Pipeline Safety OIR" from the "Case" dropdown menu. Select filing date of January 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. As a result of the commitment and investment through December 31, 2013, PG&E's accomplishments through PSEP include:

- Completing 538 miles of strength testing.[3]
- Validating records for 119 miles of prior strength tests as meeting the "traceable, verifiable and complete" standard.[4]
- Replacing 104 miles of pipeline.[5]
- Upgrading 194 miles of pipeline to accept In-Line Inspection (ILI) technology, of which 78 miles have already been in-line inspected.
- Automating 134 valves.
- Completing the records collection and Maximum Allowable Operating Pressure (MAOP) validation of PG&E's entire transmission pipeline system.
- Making material improvements in PG&E's records processes and tools.
- Completed all planned ILI upgrades for Phase 1 as of January 2014.

The following table highlights the progress of PG&E's construction activities during the fourth quarter of 2013 and on a year-to-date basis.

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

4 PG&E completed MAOP validation of all gas transmission pipeline in July 2013. Through that process, PG&E verified records for 162 miles for which PSEP work is no longer required in 2013 and 2014. Of that, 119 miles of records found related to work that would have otherwise been completed in 2013 and 43 miles of records found related to work that would have otherwise been completed in 2014. Although PG&E has already validated MAOP for these 162 miles of pipeline, PG&E engineering performs an additional validation of records of prior strength tests as meeting the "traceable, verifiable and complete" standard upon planning for the execution of 2013-2014 work.

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

TABLE 1
PACIFIC GAS AND ELECTRIC COMPANY
SUMMARY OF PSEP CONSTRUCTION ACTIVITY
QUARTER ENDING DECEMBER 31 AND YEAR-TO-DATE

	Q4 2013	YTD 2013
Pipeline Replacement (miles)	27.0(a)	64.0(b)
Strength Testing (miles)	78.1	198.8(c)
In-Line Inspection (ILI) (miles)	–	78.0
Pipeline Upgrades to Allow ILI (miles)	61.3	116.3
Valve Automation (valves)	36.0	75.0

(a) PSEP-funded Pipeline Replacement for Q4 accounted for 20.0 miles. In addition, PG&E replaced 7.0 miles of non-PSEP funded Pipeline Replacement miles in Q4.

(b) PSEP-funded Pipeline Replacement for year-to-date (YTD) accounted for 57.0 miles. In addition, PG&E replaced 7.0 miles of non-PSEP funded Pipeline Replacement miles YTD.

(c) PSEP-funded Strength Testing for YTD accounted for 186.6 miles. In addition, PG&E strength tested 12.2 miles of non-PSEP funded Strength Testing miles YTD.

In addition to the units completed as shown in the table above, 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:

- Delivered significantly improved annual safety performance in 2013, in comparison with 2012, with an increased annual construction volume.
- As a part of ongoing construction contractor alliance (Alliance), executive leadership from both PG&E and the Alliance contractors assessed performance and participated in key planning activities. The team reviewed topics including: analysis of benefits realized from 2013-completed Alliance projects as compared to 2012-completed competitively bid projects; plans to complete the closeout of the remaining 2013 construction projects; and a preliminary review of Gas Transmission's 2014 construction portfolio. The team also discussed the successes and opportunities for improvement within the Alliance, including areas to realize additional efficiencies. Additionally, the team completed initial allocation of all currently planned 2014 construction projects to Alliance construction contractors and PG&E's Gas Transmission General Construction.
- Completed earlier design of the next year's project portfolio in 2013. At year end, out of 200 projects planned for 2014, approximately 12 percent of projects have

reached 30 percent engineering completion, 29 percent of projects have reached 60 percent engineering completion, and 14 percent of projects have reached 90 percent engineering completion.[6]

- Successfully moved the last month of the peak PSEP construction period in 2013 (based upon construction hours worked) from November to October. At the same time, the construction hours worked increased by 23.9 percent in 2013, as compared to 2012.
- Successfully identified and remediated two pipeline leaks/failures for the reporting period (11 year-to-date)—which resulted in approximately 75 feet of pipeline replacement for the reporting period (approximately 455 feet year-to-date) to replace sections of pipeline that failed or leaked during strength tests.
- Successfully identified and addressed pipeline anomalies prior to conducting a Strength Test (T-303) on a six-mile section of Line 186 near Dos Palos, as part of PG&E's piloting of an-ultrasonic ILI tool on November 9, 2013.
- Successfully completed weld re-inspection activities on the Line 114 pipeline replacement project, which included facilitating the onsite review by the Pipeline and Hazardous Materials Safety Administration and CPUC field representatives. The new pipeline was placed into service on October 19, 2013.
- Continued improvement in environmental compliance performance and cost efficiencies associated with implementing storm water and best management practices.
- Filed the PSEP Update Application (A.) 13-10-017 on October 29, 2013, to present the results of the MAOP Validation Project, and to update the revenue requirements and budgets related to the Pipeline Modernization Program (pipeline replacement and strength testing), consistent with D.12-12-030.

Table 2 provides a summary of the PSEP activities and actual costs from program inception in April 1, 2011 to December 31, 2013. (See the response to Question 20 for further detail.)

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6 The percentages presented are based upon the highest stage of engineering completion.

TABLE 2
PACIFIC GAS AND ELECTRIC COMPANY
SUMMARY OF PSEP FILED VS. ACTUAL COSTS BY WORKSTREAM
REPORTING PERIOD OCTOBER 1, 2013 – DECEMBER 31, 2013
(IN MILLIONS OF DOLLARS)

	PG&E Filing Estimate	Authorized Program Costs(a)	Actual Costs Program Inception-to-Date (2011 – 12/31/13)(b)(d)	Actual Costs Reporting Period (10/1/13 – 12/31/13)(b)
Pipeline Modernization				
Pipeline Replacement	$839.1		$552.6	$82.4
Strength Testing	456.8		564.8	56.9
In-Line Inspections/Upgrades	39.9		55.8	10.4
Subtotal	**$1,335.8**	**$1,002.0**	**$1,173.6**	**$149.8**
Valve Automation	143.6	135.7	96.7	6.7
Pipeline Records Integration	286.0	0.0	319.6	8.4
Interim Safety Enhancement Measures	3.2	2.1	4.7	0.7
Program Management Office (PMO) and Other(c)	34.8	28.9	49.5	3.0
Risk-Based Contingency	380.5	0.0	0.0	0.0
Total	**$2,183.9**	**$1,168.8**	**$1,644.1**	**$168.6**

(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) Includes Stanpac costs incurred of approximately $10.29 million and $0.26 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.

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

(d) 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.[7]

During the fourth quarter of 2013, work prioritization for pipeline replacement and strength testing projects has been driven from 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 from the results of applying PSEP Decision Trees to pipeline segment attribute data as detailed in PG&E's August 2011 Implementation Plan. 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 12 projects identified in PSEP Compliance Report No. 2013-03 as scheduled to commence construction in the fourth quarter of 2013, nine projects commenced construction as planned, and three projects have been rescheduled to commence construction in 2014. Of the nine projects that commenced as planned within the reporting period, five projects were completed.

PG&E's PSEP Update Application, filed on October 29, 2013, provides an updated list of 2011-2014 pipe replacement and strength testing projects.

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7 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.

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 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.
- Quality Assurance review of the update of pipeline segment data, the associated PSEP Decision Tree outputs, and their incorporation into construction projects (see PG&E's Update Application filed October 29, 2013, Chapter 3, "Quality Assurance").
- Alliance construction contractor regional work allocation meetings to monitor and coordinate on outcomes of work allocation process (in partnership with PG&E Gas Transmission General Construction) and Alliance contractor executive leadership meetings.
- Completion of the year-end annual contractor performance scorecard review for each of the Alliance construction 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,[8] as previously outlined in the PSEP Compliance Report No. 2013-01, have been made during the current reporting period. PSEP has continued the implementation of an Alliance construction contractor delivery model through the 2013 PSEP construction projects with PG&E Gas Transmission General Construction and Alliance construction contractors. A majority of these projects have already completed construction and are entering the validation process whereby initial target prices are subject to a final update based upon approved change orders and final costs verification. 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/skilled workforce to perform work planned in 2013 and the future. 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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8 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 negotiated “target pricing” model, which shares under and over runs 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 Gas Transmission General Construction are assigned to existing suppliers using existing Master Service Agreements (MSA) 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.[9]

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9 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, and 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 ensure such instances do not reoccur. Examples[10] of such quality monitoring activities and related issues identified during the reporting period include:

- PG&E's Quality Assurance/Quality Control (QA/QC) department performed 235 field assessments in Q4 (686 year-to-date) of gas transmission contractor construction work. These field assessments were conducted on 38 individual projects in Q4 (154 year-to-date). These assessments resulted in 83 "Corrective Action Notices" in Q4 issued by PG&E (263 year-to-date) and were primarily related to errors in documentation of the work performed. The majority of the "Corrective Action Notices" have already been resolved or are still being tracked to resolution with PG&E's QA/QC department.[11]
- Completion of 372 job-site safety observations in Q4 (2,032 year-to-date). Through these observations, 163 observable items were identified in Q4 (689 year-to-date). All of the observable items were mitigated to align with the on-site contractor site-specific safety plan. As a result, 57 "good catches"[12] were identified and addressed in Q4 (250 year-to-date) to raise the worksite safety awareness of every contractor or employee working on a PG&E project.

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10 The information provided includes contractors and employees.

11 Quality performance metrics derived from the aforementioned field assessments for Q4, remained within PG&E's quality thresholds.

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

- PSEP Leadership Observation Teams[13] visited 80 construction sites during Q4 (350 year-to-date) to engage work crews and promote best practices.
- As part of PG&E's internal standards, PG&E completed 2,534 environmental inspections in Q4 to comply with PG&E standards (7,747 year-to-date). The environmental inspections identified 133 compliance deficiencies[14] in Q4 (592 year-to-date), 4 compliance issues[15] in Q4 (31 year-to-date) and 2 non-compliance issues[16] in Q4 (5 year-to-date). The non-compliance issues in Q4 and year-to-date are typically related to not meeting PG&E standards and lack of communication on change of scope of work. The issues were addressed through a correction action plan investigation and lessons learned were implemented.

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

14 Compliance deficiencies are correctable items that do not have significant impact on resources or environmental resources.

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

16 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 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 inter-related 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 PMO support these objectives, and in doing so, contribute to the cost-effective execution of the Implementation Plan. While it is not possible to accurately segregate and quantify individual cost savings impacts, during the current reporting period the 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:

- Construction Contractor Alliance
  - Project Performance Measurement and Target Pricing: As part of the continued implementation of an Alliance construction contractor delivery model, the PSEP PMO has developed and continues the implementation of a performance measurement process. This process finalizes approved change orders and incorporates cost validation activities with 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 had completed four project true-ups with a realized increase in cost to PG&E against the target price of approximately $136,814 or 3 percent of the final target price. Extended change order negotiations and processing as well as gathering and receipt of actual costs from Alliance Partners have increased the time required to true-up

and close out projects. It is anticipated that the completion of construction activities and invoicing documentation will extend these activities on the majority of 2013 portfolio projects into the first quarter of 2014.

  - Construction Resource Availability and Efficiency: Weekly reviews of Alliance construction contractor commitments to provide consistent and sustained access to "A-team" resources across a bundle of PSEP work in an assigned geographical region (e.g., mitigating individual project delays by bringing forward work on future projects).
  - Continuous Improvement and Lessons Learned: In partnership with the PMO, Shared Services has worked to collect Alliance-contractor-identified potential improvements and is in the process of reviewing and assessing these for potential incorporation into 2014 activities.

- Increasing the consistency of delivery on best practices and efficiency across the PSEP program, including continued support of environmental management best practices and site restoration activities which resulted in the beneficial reuse of 2,282,425 gallons of water in Q4 (4,033,915 gallons year-to-date) and the reuse between strength-testing segments of 243,000 gallons of water in Q4 (1,443,200 gallons year-to-date). The application of these best practices resulted in an annual reduction of 74 percent in the generation of hazardous waste from 796,450 gallons in 2012 to 205,900 gallons in 2013.
- 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 $12.3 million during the period January 1, 2013 through December 31, 2013. 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.

Throughout 2013 and during the current reporting period, the PMO, in partnership with project teams and cross-functional leads including PG&E's Customer Care and Corporate Communications organizations, has focused on many areas that directly benefit PG&E customers including:

- Improving Construction Site Safety: 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 track a targeted 10 percent performance improvement in 2013 (compared to 2012) for the incidence of construction-related public safety incidents and at-fault "dig-ins." These metrics improved by 86 percent and 63 percent, respectively, and remain on track to meet or exceed 2013 targets. PSEP's year-to-date 2013 recordable incident rate was 0.96[17] as of December 31, 2013.
- 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. Through December 31, 2013, PSEP remained significantly ahead of plan to meet or exceed a 10 percent reduction

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17 Includes hours worked by Alliance contractors, Construction Management inspectors, and PG&E General Construction resources on PSEP construction projects.

in inspection findings compared to its 2012 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 Construction Project Planning and Bundling: During the current reporting period, PG&E has continued to better align PSEP construction schedules and regionally bundle work across workstreams, including non-PSEP projects. Bundling enables potential reductions in the required system clearances, clearance resources, and the duration and impact of construction-related service and traffic disruptions. During the current reporting period, this increased alignment enabled PG&E to meet the majority of its targeted project tie-ins in spite of a prolonged cold spell during December 2013 that severely restricted the availability of system clearances.
- 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 2013 increasingly deliver earlier and better visibility into customer demand requirements and enable better 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 PMO's role continued during the current reporting period 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.

Budgeting 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 being 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, and 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 2013 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 $93,296 in Q4 ($221,632 year-to-date) 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 142 individual projects across five PSEP construction workstreams[18] that were completed by PG&E during the current reporting period and year-to-date.[19] With respect to these projects, Table 11-1 includes specific reference to proceeding workpapers, including the construction start and finish dates.[20] 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

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18 Includes: pipeline replacement, strength testing, ILI, pipeline ILI upgrades, and valve automation.

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

20 For projects completed during the reporting period, construction finish dates may reflect the forecast completion date of construction activities.

complete records of such a test do not exist.[21] PG&E's Workpapers Supporting 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 Implementation Plan 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 Commission in order to determine the final disposition of shareholder costs. See Table 20-1 in this report for the total amount of costs that shareholders have absorbed year-to-date 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.

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[21] Table 11-1 also includes strength testing of pipeline segments for which a specification changed (e.g., class location or load requirements) that necessitated a new test to comply with applicable code. The costs associated with such testing are not included in PSEP costs.

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 Decision 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 13 individual projects across five construction workstreams where construction has commenced but the project has not yet been returned to operations (tied-in) as of December 31, 2013. Table 12-1 includes specific reference to workpapers of projects that have started construction but are not yet completed[22] 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.

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22 For the purposes of this report, the completion of a project is considered the date the pipeline segments are returned to operations.

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 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.
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 194 individual projects across five construction workstreams where pre-construction activities have commenced but construction resources have not yet mobilized as of December 31, 2013.

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.[23] 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 the project.

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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23 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 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.
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. In each case, an explanation of why these projects have been included in Phase 1 is provided in the column titled, "Comments."

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.

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 31 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, 197.00 miles of transmission pipeline (95.59 miles from Line 300A, 94.62 miles from Line 300B, and 6.79 miles from Line 132) were made piggable under PSEP from program inception through December 31, 2013. This increase reflects the completion of two additional pipeline retrofit/upgrade projects during the current reporting period (Line 132 mile points (MP) 31.93-38.40 and Line 300B MP 299.00-353.80).

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

Route ID	Launch Mile Point	Receiver Mile Point	Piggable Distance(a)
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 1,415.55 miles of piggable transmission pipeline (see Table 16-2), which amounts to 21 percent of PG&E's approximately 6,750 total transmission pipeline miles (as of December 31, 2013). 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

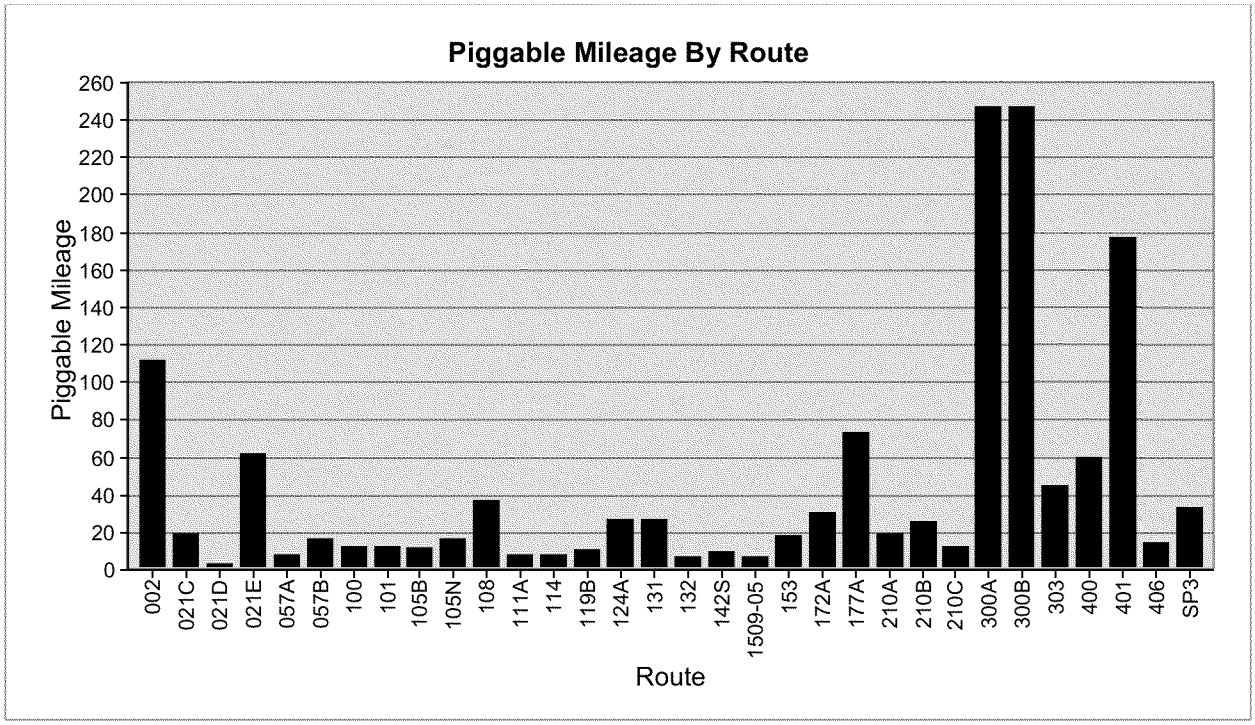


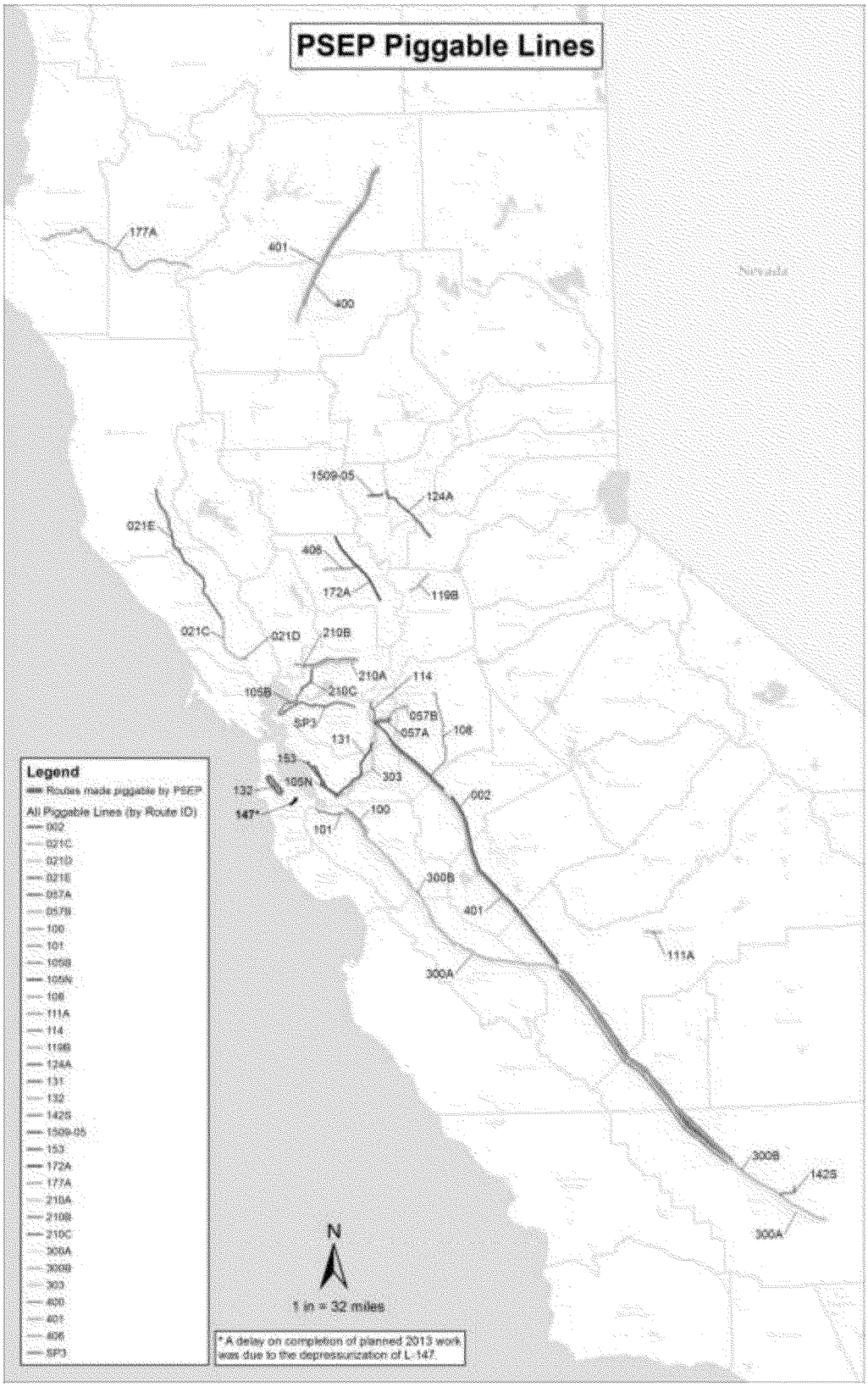
TABLE 16-2
PACIFIC GAS AND ELECTRIC COMPANY
PIGGABLE TRANSMISSION PIPELINE SEGMENTS

Route	Piggable Pipeline Segments 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	21.88	3.24
021E	53.12	64.36	11.39
021E	64.54	93.67	30.77
021E	93.67	114.89	20.20
057A	9.20	16.68	7.39
057B	0.00	16.68	16.62
100	138.43	150.13	12.13
101	0.00	11.92	12.36
105B	0.00	11.81	11.84
105N	7.75	23.00	16.27
108	0.00	37.15	37.05
111A	20.32	27.58	7.26
114	9.03	16.59	8.02
119B	0.00	10.16	10.68
124A	0.00	26.03	26.42
131	24.88	50.57	26.65
132**	31.93	38.40	6.79
142S	0.00	9.01	9.06
1509-05	0.00	6.49	6.45
153	0.00	17.65	17.86
172A	40.07	69.81	29.78
177A	88.80	163.04	74.48
210A	1.38	19.47	18.98
210B	1.37	25.98	25.85
210C	19.46	32.11	12.75
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	256.64	299.00	43.22
300B**	299.00	353.80	54.84
300B**	354.09	393.61	39.78
300B	393.76	450.79	57.18
300B	450.79	502.64	52.42
303	0.00	42.83	44.72
400	82.33	142.61	60.28
401	82.34	149.19	67.01
401	317.95	427.98	110.06
406	0.00	13.80	13.84
SP3	167.31	198.49	33.19
Total			1,415.55

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

** PSEP segment.

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



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, PSEP has continued to apply lessons learned and associated process improvements from prior reporting periods, including those previously reported in prior PSEP Compliance Reports. In addition, PSEP workstreams have also identified additional lessons learned during the current reporting period, including:

- Strength Testing In-Series: Successfully reused test water on several Strength Tests (T-211B-13 & T-209-13, T-318-14 & T-225-13, T-284-13 & TIM-269B-13, T-303B-14 & T-404-14) which resulted in reducing water management and disposal costs. This in-series testing also allowed the contractor to reduce mobilization costs and be more efficient with crew utilization. The contractor could send the digging crew out ahead of the testing crew and work on multiple tests at the same time to reduce stand-by costs. PG&E estimates that the average cost per mile of these longer in-series tests is approximately 36 percent less the average test cost which, over the 40.89 mile length of these in-series tests identified above, represents a comparative cost avoidance of approximately $529,000.
- Establishment of Transmission Project Clearance Operations Team: A dedicated team of qualified employees was established to plan, prepare, and execute pipeline and station system clearances across the PG&E transmission system based upon project locations. The team has been focused on supporting large project work and has proven to be an essential element in enabling these projects to execute system clearances and meet peak demands in work in any given area. As part of supporting Alliance contractors' execution of "cut-and-cap" and "Tie-In" activities, this improvement is estimated to have potentially avoided costs in 2013 of approximately $3.5 million to $5.0 million.
- Ultrasonic ILI Tool: The Ultrasonic ILI tool was piloted on strength test projects (T-303B & T-304) as a pre-testing measure to identify any potential ruptures, leaks, or any other failures that could fail the strength test. Resultant anomalies were: multiple dent features interacting on longitudinal

seams, metal loss features of greater than 50 percent, dents on lamination, etc. The results for anomalies with immediate concerns were addressed prior to strength test or addressed afterwards. In addition, the ultrasonic technology found that the wall thickness of elbows was thicker than expected, which allowed the pipe to be strength tested at a higher pressure than originally planned. Overall, the tool provides additional information about the pipeline which may not be detected with a strength test—making the transmission pipeline system even safer.

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

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 and reflected, as applicable, in the specific

mitigation programs in Chapter 4A of PG&E's December 19, 2013 Prepared Testimony.[24]

[24] 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 2013 completed projects and the resulting cost and schedule impacts,[25] 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 fourth quarter of 2013, PG&E identified that "Unstable/Weak Soil"[26] and "Productivity Impacts"[27] caused the greatest cost increases totaling approximately $2.75 million and $2.33 million, respectively. "Permitting" and "Productivity Impacts"[28] accounted for the greatest number of schedule day delays totaling 204 and 189 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, both replacement, experienced impacts related to weak soil. Construction crews on one had a particularly difficult time overcoming the soil conditions to complete the last 10,000 feet of excavation despite

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

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

27 Potential impacts to contractor productivity may be caused by multiple issues (e.g., material/resource availability or one project in a group of coordinated or sequenced projects impacting another) which may result in a contractor moving to another construction location on-site or other methods of mitigation.

28 Productivity impacts include unplanned permitting conditions, requirements, and delays from various permitting agencies (e.g., limited working hours, limited access, delays in issuance, etc.) which may result in schedule and/or cost impacts.

implementing several common methods. This resulted in cost increases and a schedule delay related to these efforts.

  - Recommendations: Continue taking soil samples by using historical data and research 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.

- **Productivity Impacts (Cost and Schedule)**
  - Results: It was necessary to complete some projects in this quarter consecutively in order to ensure continued customer support. Consequently, later projects were impacted by delays in earlier projects. Regional coordination, particularly with Alliance contractors, enabled construction resources to move efficiently between projects and workstreams, thereby reducing the impact of this realized risk.
  - Recommendations: Continue the increased coordination of PSEP workstream activities with regional construction resources, including combination with non-PSEP activities, when appropriate opportunities are identified. Continue to build portfolio of "back-up" projects available to commence construction, if required, to meet program commitments.
- **Permitting (Cost and Schedule)**
  - Results: Primarily impacting an ILI project, schedule delays were experienced due to permits with long lead times from the San Francisco Public Utilities Commission (SFPUC) and Caltrans. Communications had been ongoing since 2012 for the SFPUC permit for this and other projects in the area. Alternatives such as condemnation were explored, but that process is also long and an agreement was ultimately reached with the SFPUC instead. The need for a second Caltrans permit was not identified until after construction began due to differing field conditions, and Caltrans' approval process cannot be expedited. Delays and/or cost impacts on other projects were due to a variety of permitting constraints (e.g., requirement of night work, extensive traffic control plans, etc.).
  - Recommendations: Continue to apply for permits as early as possible, especially those known to have a long lead time, and keep up regular communications with permitting agencies in an attempt to limit impacts from constraints.

- **Unexpected Conditions of Pipe, Valves, or Fittings[29] (Cost and Schedule)**
  - Results: Impacts related to this risk varied from conditions such as pipe laminations (i.e., imperfections in pipe wall material), other similar anomalies in pipe walls, or a new valve found to be defective. This risk and the manner in which it may materialize and impact a specific project is being identified as part of planning activities that also incorporate the local knowledge of gas transmission personnel (e.g., the recognition that there is a potential for pipe leaks during a specific strength test due to a history of agricultural land use and prior instances of damage from farming equipment on the pipeline). However, the exact timing, location and extent of impact are highly variable and have the potential to materially impact project cost and schedules (e.g., it may take several days and significant resources to locate a leak along a pipeline undergoing a Strength Test).
  - Recommendations: Continue the monitoring of this risk using project risk registers, in particular for projects on the same line, in close proximity, or with similar pipeline attributes (e.g., shallow pipe). Continue to carry forward lessons learned from these and prior occurrences to improve the efficiency of response to future line damage or leaks (e.g., determining damage/leak location). Also continue exploring new leak detection methods, such as the In Vista inspection tool, an ultrasonic inspection tool, which was piloted on two Strength Test projects this quarter.

PG&E will continue to utilize lessons learned and is implementing plans, with the aid of new risk management software, to take an even more proactive approach to risk management in 2014.

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.

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29 Pipe, valves, or fittings may be leaking or faulty, requiring additional work to repair or to replace them. This category does not include linear indications on the pipe, the occurrence of which are tracked in a separate category.

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 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 year-to-date, shown by month and broken down by activity. Amounts authorized for customer recovery are provided at the program activity level, consistent with the presentation in Attachment E of 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 year-to-date, shown by month and broken down by activity. Amounts funded by shareholders are provided at the program activity level, consistent with the presentation in Attachment E to D.12-12-030.[30]

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30 Presentation of amounts funded by shareholders may vary for financial reporting purposes.

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 December 31, 2013, PG&E has replaced over 104 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 30 projects completed (tied-in) in 2013 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 – DECEMBER 31, 2013

Pipeline Replacement	2011	2012	2013
Forecast R.11-02-019	0.3	39.0	64.0
Actual Replaced and Tied-in, retired or downrated(a)	0.3	40.0	50.0
Actual Installed Pending Tie-In			14.0
Total Actual	0.3	40.0	64.0(b)

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

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 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.

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 December 31, 2013, PG&E has completed strength testing on over 538 miles of gas transmission pipeline since the inception of the PSEP program, in addition to the validation of the records of over 119 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 74 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 – DECEMBER 31, 2013

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

(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 2011-2013 in Table 24-1. Monthly customer and community outreach costs for 2013 are shown in Table 24-2.

TABLE 24-1
PACIFIC GAS AND ELECTRIC COMPANY
PUBLIC OUTREACH COSTS
APRIL 1, 2011 – DECEMBER 31, 2013
(IN MILLIONS OF DOLLARS)

2011	2012	2013
$2.62	$4.54	$4.21

TABLE 24-2
PACIFIC GAS AND ELECTRIC COMPANY
2013 MONTHLY PUBLIC OUTREACH COSTS
(IN MILLIONS OF DOLLARS)

Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013	Dec 2013
$0.36	$0.35	$0.38	$0.38	$0.35	$0.38	$0.44	$0.36	$0.34	$0.33	$0.28	$0.26

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 December 31, 2013, 39 open houses have been hosted, 222,155 letters have been mailed, and 368,275 IVR calls have been made to customers impacted by PSEP work during 2013.

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 the second quarter, the Customer Outreach team added another touch point to the communications process for some projects. 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 six to eight attendees per open house.

Customer Impact inserts additional customer touch points where deemed beneficial, depending on the particular situation. Customer Impact held a second open house on November 12, 2013 for R37, Line 172 Replacement project in West Sacramento. The project runs through the heart of West Sacramento, a heavy commercial area. The first open house was held in August 2013, prior to when construction was mobilized for the project. Complaints regarding loss of revenue due to construction inconvenience were received. In November, customers were sent a status update letter, informing them of the project's progress, and inviting them to attend another informational open house. In order to provide solutions and answers to issues customers were experiencing related to the project, subject matter experts for the replacement project and PG&E Claims representatives were in attendance at the open house. Energy Solutions and Service representatives were also in attendance to provide energy efficiency information to commercial and residential customers. Due to the significant customer impacts of this project, a weekly status update email was sent to the Washington Unified School District, Yolo Bus system, and the City of West Sacramento Fire Department.

In addition and 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 142 completed construction projects in 2013, with minimal impact to customer service. Tables 22-2 and 23-2 provide pipeline clearance dates, tie-in dates,[31] locations, and pipeline numbers, on a project-by-project basis for 30 completed pipe replacements and 74 strength test projects.

Table 25-1 of the appendix supplements these tables by providing information for 38 completed valve automation, in-line inspection upgrade, and in-line inspection projects in 2013. 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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[31] 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 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/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	Date pipe became operational and project completed.

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 177 units targeted in 2013, 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 7,386 customer tap days through the end of December 2013 using portable CNG equipment, 6,498 customer tap days for the same time period in

2012 and 354 customer tap days for the same period in 2010. This represents supporting approximately 20 separate locations per day for the year of 2013.

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.

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 cost estimates of all previously authorized and proposed PSEP projects. PG&E's 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 of D.12-12-030.

For the current reporting quarter no valve automation or ILI projects, previously listed as planned 2013 projects, with specific reference to prior PG&E workpapers were not completed or replaced by a higher priority project.[32]

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32 For similar project data related to 2011 and 2012 projects refer to PSEP Compliance Report 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 enter and upload data into the system, required to locate and collect information maintained in different offices and different records management systems, required to 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.[33] This report lists the activities that were included in each phase and provides a summary of the activities completed as of December 31, 2013. 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 and 2013-03 for progress made by each functional area prior to this reporting period.

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

Functional Area	Work Completed in Q4 (October 1 - December 31, 2013)	Mariner Project Phases
Leak Survey	Work continues within this functional area. No major milestones reached within this reporting period.(a)	Phases 0 and 1
Locate and Mark	Work within this functional area is now complete.(b)	Phase 0
Corrective Maintenance	**Project Description** This effort provides for an accurate and complete dataset of information recorded in IGIS and other corrective maintenance history to be included in SAP. **Progress and Accomplishments** • Completed testing of the SAP and mobile improvements as of December 31, 2013. The pilot for the corrective maintenance mobile application will commence in January 2014.	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 continues within this functional area. No major milestones reached within this reporting period.(c)	Phase 2
Preventive Maintenance	**Project Description** Paperless process for documenting preventative maintenance work performed in the field **Progress and Accomplishments** • Completed testing of the SAP and mobile improvements as of December 31, 2013. The pilot for the preventive maintenance mobile application will commence in January 2014.	Phase 2
GIS	**Project Description** Deployment of new Gas Transmission (GT) GIS system using data from the MAOP project that uses Linear Asset Management and is integrated with SAP. **Progress and Accomplishments** • This functional area is in the process of validating asset data from multiple sources to be included in GT GIS. • Implemented internal hosting of GT GIS for desktop and web client release 1.1 along with associated user interfaces. • Established proposed retirement timeline of GasMap. • Continued work to implement SAP Linear Asset Management functionality and system integration (SAP, Documentum, and GIS). Initiated plan/analyzed phase to develop the scope of the business requirements for GT GIS systems integration and data conversion.	Phases 1, 2 and 3
Integrity Management	**Project Description** Implement industry standard "best practice" technology solutions to automate manual integrity analysis tasks and integrate tools with core enterprise systems **Progress and Accomplishments** • Completed testing of Class Location and Risk Analysis tools.	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 11-1
PACIFIC GAS AND ELECTRIC COMPANY
PROJECT STATUS SUMMARY - PROJECTS COMPLETED
JANUARY 1, 2013 – DECEMBER 31, 2013

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	N/A	25791	30894012	R-114 L-114 RETIRE 0.70MI MP 8.18-8.91 PH1	Oakley	H&M	6-Mar-13	24-Apr-13	$ 264,013.00	$ 972,002.86	$ 113,356.09	$ 12,890.18	$ 784,227.47	$ 61,529.12	$ 707,989.86	$ -	$ -	Yes	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.
2	23874	26442	30906224	R-100 L-131 RETIRE 0.58MI MP 8.56-8.93 PH1	Oakley	H&M	6-Mar-13	24-Apr-13	$ 147,444.00	$ 671,301.74	$ 49,743.68	$ 3,929.33	$ 581,793.21	$ 35,835.52	$ 523,857.74	$ -	$ -	Yes	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.
3	24022	24022	41482736	I-017 L300A MP353 to MP391 ILI Inspection P&A	Kettleman City	GT/GC	3-Apr-13	15-Apr-13	$ 1,484,526.00	$ 1,188,271.99	$ 352,971.35	$ 35,689.14	$ 402,852.96	$ 396,758.54	$ (296,254.01)	$ -	$ -	No	
4	23864	27569	41699027	T-174-12, Line DFM-1816-05, Watsonville	Watsonville	Underground	17-Jun-13	29-Jul-13	$ 2,513,651.00	$ (71,396.10)	$ -	$ 38,259.82	$ 1,670,338.27	$ (1,779,994.19)	$ (2,585,047.10)	$ -	$ (71,396.10)	No	Accelerated from 2014 to 2012 to facilitate pressure restoration on the line, subsequently delayed to 2013 as a result of material delivery delays and environmental permitting constraints (CA Tiger Salamander).
5	23762	23762	30841468	R-038 DFM-1813-02 REPL 0.01MI MP 1.00-1.06 PH1	Salinas	GT/GC	21-Jun-13	9-Jul-13	$ 591,987.00	$ 751,518.24	$ 492,502.49	$ 77,749.57	$ 195,718.63	$ 155,423.29	$ 159,531.24	$ 169,875.74	$ -	Yes	Delayed from 2012 to 2013 to accommodate other higher priority projects in 2012.
6	23688	26045	30841472	R-018 L-114_2 REPL 1.89MI MP 9.04-10.50 PH1	Oakley	Rockford	21-Sep-12	12-Jan-13	$ 19,494,177.81	$ 20,161,380.13	$ 1,188,768.43	$ 1,958,589.07	$ 16,054,601.86	$ 978,016.53	$ 667,202.32	$ 18,595.76	$ -	No	Delayed tie-in from 2012 to 2013 due to productivity impacts resulting from easement constraints during construction. Job Estimate (JE) created prior to project, split into 3 portions for constructability reasons and then allocated to each project based on mileage. However, this method did not take into account the 2 additional mob/de-mob costs, site restoration costs and other site specific conditions that vary along the line.
7	23694	23694	30841473	R-023 L-131_1 REPL 1.49MI MP 32.37-33.77 PH1	Livermore	GC/Snelson	15-Jan-13	24-Aug-13	$ 18,265,934.00	$ 19,365,749.12	$ 2,095,106.62	$ 1,660,719.77	$ 14,228,956.35	$ 1,384,735.69	$ 1,099,815.12	$ 3,769.31	$ -	No	Delayed from 2012 to 2013 as a result of schedule balancing and permits requiring long lead times.
8	23807	23807	30842178	R-041 DFM-1020-01 REPL 2.47MI MP 0.00-2.69 PH1	Butte	GT/GC	31-May-12	14-Jan-13	$ 3,000,000.70	$ -	$ 660.08	$ 79,883.25	$ 84,586.29	$ (165,129.62)	$ (3,000,000.70)	$ -	$ -	No	Accelerated from 2014 to 2012 and replaced with Distribution piping to align with PG&E's commitment to retire or replace 1,200 High Pressure Regulators (HPRs) by the end of 2012.
9	23802	31295	30842185	R-122 DFM-1306-01 REPL 0.01MI MP 1.48-1.48 PH1	Sonoma	GT/GC	16-Sep-13	11-Oct-13	$ 470,534.00	$ 496,877.53	$ 177,900.14	$ 20,092.25	$ 307,299.30	$ 96,284.89	$ 26,343.53	$ 104,699.05	$ -	No	
10	23862	23862	30842187	R-071 DFM-1502-08 REPL 0.25MI MP 0.01-0.52 PH1	Yuba	GT/GC	29-Oct-12	3-Jan-13	$ 769,376.00	$ 212,677.59	$ 500,236.06	$ 82,386.10	$ 116,141.44	$ 122,519.77	$ (556,698.41)	$ 47,115.11	$ -	No	Accelerated from 2014 to 2012 to avoid a pressure reduction and to coordinate with Division work to convert to low pressure main and remove HPRs in 2012.
11	23682	23682	30842195	R-148 DFM-1617-01 REPL 0.85MI MP 0.82-1.26 PH1	Tracy	GT/GC	10-Dec-13	20-Dec-13	$ 2,657,352.00	$ 948,534.51	$ 577,197.01	$ 50,469.99	$ 252,462.23	$ 68,405.28	$ (1,708,817.49)	$ -	$ -	No	Accelerated from 2014 to 2013 to address required Integrity Management assessments.
12	23720	26014	30842201	R-003 DFM-7221-10 REPL 4.65MI MP 12.07-16.13 PH1	Modesto	Underground	21-May-13	12-Aug-13	$ 29,300,000.03	$ 18,711,050.15	$ 674,202.65	$ 1,690,967.44	$ 18,490,367.95	$ (2,136,355.04)	$ (10,588,949.88)	$ 8,132.85	$ -	No	Delayed from 2012 to 2013 due to construction difficulties.
13	23832	26029	30842215	R-006 L-111A REPL 9.78MI MP 20.32-27.57 PH1	Fresno	Snelson	21-Aug-12	28-Feb-13	$ 35,520,000.00	$ 35,346,985.40	$ 1,347,947.81	$ 5,974,697.38	$ 25,112,534.43	$ 2,958,920.89	$ (173,014.60)	$ 47,115.11	$ -	No	Delayed tie-in from 2012 to 2013 due to additional Integrity Management (IM) tie-in and construction complications, including land acquisition delays.
14	23825	26033	30842223	R-005 L-138 REPL 7.29MI MP 38.36-45.08 PH1	Fresno	Snelson	30-Jul-12	12-Aug-13	$ 27,372,069.00	$ 33,063,328.28	$ 1,790,010.64	$ 5,524,987.06	$ 25,466,354.59	$ 295,809.96	$ 5,691,259.28	$ 13,833.97	$ -	Yes	Delayed from 2012 to 2013 as a result of construction complexities requiring more time for engineering and planning.
15	23731	31029	30842225	R-102 L-162A REPL 0.35MI MP 7.40-7.72 PH1	Tracy	Snelson	13-Jun-13	15-Jul-13	$ 2,387,228.00	$ 2,142,184.10	$ 237,080.68	$ 54,314.21	$ 1,757,899.83	$ 104,597.76	$ (245,043.90)	$ 11,708.38	$ -	No	Accelerated from 2014 to 2013 due to IM flags.
16	23769	23769	30842226	R-105 DFM-1815-02 REPL 0.45MI MP 18.76-19.24 PH1	Monterey	Underground	17-Sep-13	31-Oct-13	$ 4,310,426.00	$ 5,075,795.68	$ 723,339.45	$ 175,675.41	$ 3,938,751.53	$ 239,290.72	$ 765,369.68	$ 1,261.43	$ -	Yes	Accelerated from 2014 to 2013 to offset delays on other projects.
17	23824	31696	30842230	R-137 L-173 REPL 0.02MI MP 5.50-5.51 PH1	Rocklin	GT/GC	24-Jun-13	29-Jul-13	$ 997,837.00	$ 827,504.35	$ 564,259.17	$ 100,021.27	$ 150,680.81	$ 145,900.93	$ (170,332.65)	$ 133,357.83	$ -	No	
18	23743	26006	30842245	R-011 L-118A REPL 8.11MI MP 5.62-12.55 PH1	Fresno	Snelson	15-Jul-13	23-Nov-13	$ 47,190,000.00	$ 40,394,456.49	$ 1,195,480.37	$ 6,420,098.51	$ 30,950,858.73	$ 1,956,752.08	$ (6,795,543.51)	$ 128,733.20	$ -	No	
19	23724	25727	30842248	R-022 L-109_2A REPL 3.50MI MP 13.65-16.93 PH1	Palo Alto/Stanford	ARB	4-Sep-12	19-Jun-13	$ 55,800,000.28	$ 42,573,582.11	$ 2,020,810.17	$ 2,626,157.62	$ 36,951,520.85	$ 1,102,084.89	$ (13,226,418.17)	$ 126,991.42	$ -	No	
20	23655	23655	30842259	V-053 Valve Auto - 4th & Jefferson, 1V, Ph. 1	Oakland	ARB	24-Sep-13	6-Nov-13	$ 2,226,644.00	$ 1,562,880.75	$ 305,937.82	$ 261,457.37	$ 919,935.04	$ 75,550.52	$ (663,763.25)	$ -	$ -	No	
21	23651	23651	30842260	V-052 Valve Auto - 51St Avenue, 1V, Ph. 1	Oakland	ARB	9-Aug-13	25-Oct-13	$ 1,948,016.00	$ 1,666,854.63	$ 312,649.06	$ 193,225.90	$ 1,068,747.45	$ 92,232.22	$ (281,161.37)	$ -	$ -	No	
22	23656	23656	30842262	V-072 Valve Auto - 8 Mile Pls, 2V, Ph. 1	Stockton	Snelson	2-Aug-13	25-Sep-13	$ 1,141,646.00	$ 1,057,442.38	$ 277,242.58	$ 190,820.05	$ 594,919.49	$ (5,539.74)	$ (84,203.62)	$ -	$ -	No	Accelerated from 2014 to 2013 to offset delays on other projects.
23	23662	23662	30842263	V-069 Valve Auto - Airport & French Camp, 3V, Ph. 1	Stockton	Snelson	23-Sep-13	2-Dec-13	$ 1,360,282.00	$ 1,089,728.39	$ 259,533.82	$ 263,086.60	$ 556,416.85	$ 10,691.12	$ (270,553.61)	$ -	$ -	No	Accelerated from 2014 to 2013 to offset delays on other projects.
24	23660	23660	30842264	V-070 Valve Auto - Airport & Sonora, 3V, Ph. 1	Stockton	Snelson	15-Jul-13	19-Sep-13	$ 1,181,296.00	$ 1,203,227.64	$ 315,999.88	$ 247,100.35	$ 627,353.28	$ 12,774.13	$ 21,931.64	$ -	$ -	No	Accelerated from 2014 to 2013 to offset delays on other projects.
25	23645	23645	30842268	V-049 Valve Auto - Alvarado, 1V, Ph. 1	Union City	Underground	16-Apr-13	10-Jul-13	$ 1,186,816.00	$ 1,135,066.65	$ 251,416.53	$ 106,266.98	$ 700,703.58	$ 76,679.56	$ (51,749.35)	$ -	$ -	No	
26	23602	23602	30842283	V-015 Valve Auto - Edgewood, 6V, Ph. 1	Redwood City	Underground	22-May-13	27-Nov-13	$ 4,436,438.00	$ 4,864,950.09	$ 502,897.35	$ 2,184,818.08	$ 6,564,832.65	$ (4,387,597.99)	$ 428,512.09	$ -	$ -	No	Delayed from 2012 to 2013 due to clearance constraints and difficulty in obtaining required permits.
27	23649	23649	30842285	V-051 Valve Auto - Fairway Avenue, 2V, Ph. 1	San Leandro	GT/GC	27-Feb-13	28-Jun-13	$ 1,093,003.00	$ 734,962.44	$ 315,320.35	$ 130,627.20	$ 273,748.07	$ 15,266.82	$ (358,040.56)	$ -	$ -	No	
28	23970	23970	30842289	V-028 Valve Auto - Half Moon Bay Tap, 2V, Ph. 1	San Mateo	US Pipeline	2-Nov-12	13-Feb-13	$ 893,119.00	$ 1,051,161.57	$ 328,732.30	$ 161,400.80	$ 449,006.71	$ 112,021.76	$ 158,042.57	$ -	$ -	Yes	Delayed from 2012 to 2013 due to clearance resource constraints.
29	23600	23600	30842290	V-013 Valve Auto - Hamlin Court, 1V, Ph. 1	Sunnyvale	Snelson	24-Aug-12	1-Apr-13	$ 1,580,499.00	$ 1,123,286.44	$ 247,227.28	$ 210,984.26	$ 600,751.96	$ 64,322.94	$ (457,212.56)	$ -	$ -	No	Delayed from 2012 to 2013 due to difficulties in obtaining permits from the City of Sunnyvale for electrical service connections.
30	23635	23635	30842300	V-045 Valve Auto - East Airway, 3V, Ph. 1	Livermore	Snelson	18-Sep-13	4-Nov-13	$ 1,266,169.00	$ 1,031,459.65	$ 369,201.47	$ 193,537.49	$ 393,269.32	$ 75,451.37	$ (234,709.35)	$ -	$ -	No	
31	23637	23637	30842301	V-047 Valve Auto - Livermore Junction, 2V, Ph. 1	Livermore	Underground	28-Aug-13	25-Sep-13	$ 1,112,613.00	$ 841,568.26	$ 277,305.19	$ 131,964.50	$ 379,817.83	$ 52,480.74	$ (271,044.74)	$ -	$ -	No	
32	23606	23606	30842303	V-019 Valve Auto - Martin Station, 4V, Ph. 1	Daly City	Snelson	6-Sep-12	25-Apr-13	$ 1,176,884.00	$ 1,022,542.44	$ 250,884.35	$ 15,850.19	$ 647,314.01	$ 108,493.89	$ (154,341.56)	$ -	$ -	No	Delayed from 2012 to 2013 due to clearance constraints and construction complexities.
33	23663	23663	30842308	V-057 Valve Auto - Palm Tract, 2V, Ph. 1	Brentwood	GT/GC	11-Jul-13	7-Aug-13	$ 469,761.00	$ 365,822.01	$ 175,827.62	$ 69,010.28	$ 113,540.27	$ 7,443.84	$ (103,938.99)	$ -	$ -	No	
34	23675	23675	30842313	V-061 Valve Auto - Sac Gas Load Center, 4V, Ph. 1	Sacramento	Barnard	7-Oct-13	17-Dec-13	$ 1,605,302.00	$ 1,238,151.58	$ 267,135.51	$ 215,095.72	$ 708,599.51	$ 47,320.84	$ (367,150.42)	$ -	$ -	No	Accelerated from 2014 to 2013 to offset delays on other projects.
35	23601	23601	30842316	V-014 Valve Auto - Sand Hill, 2V, Ph. 1	Menlo Park	US Pipeline	8-Sep-12	16-Apr-13	$ 4,344,697.00	$ 4,227,976.17	$ 661,719.41	$ 623,199.90	$ 2,265,734.23	$ 677,322.63	$ (116,720.83)	$ -	$ -	No	Delayed from 2012 to 2013 in order to coordinate with clearance for replacement project on the same Line, L-109.
36	23604	23604	30842319	V-017 Valve Auto - Sullivan Ave, 1V, Ph. 1	Daly City	ARB	18-Sep-12	6-Apr-13	$ 835,815.00	$ 635,958.99	$ 94,939.85	$ 43,563.09	$ 453,953.46	$ 43,502.59	$ (199,856.01)	$ -	$ -	No	Delayed from 2012 to 2013 due to clearance constraints and construction complexities.

TABLE 11-1
PACIFIC GAS AND ELECTRIC COMPANY
PROJECT STATUS SUMMARY - PROJECTS COMPLETED
JANUARY 1, 2013 – DECEMBER 31, 2013

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
37	23674	23674	30842322	V-063 Valve Auto - Valero Refinery Tap, 3V, Ph. 1	Benicia	ARB	19-Aug-13	14-Oct-13	$ 1,880,271.00	$ 1,054,097.93	$ 240,605.11	$ 220,514.45	$ 529,325.50	$ 63,652.87	$ (826,173.07)	$ -	$ -	No	Accelerated from 2014 to 2013 to offset delays on other projects.
38	23631	23631	30842326	V-040 Valve Auto - Walnut Ave, 1V, Ph. 1	Walnut Creek	ARB	3-Jun-13	11-Oct-13	$ 1,653,709.00	$ 1,566,714.21	$ 263,442.95	$ 426,795.76	$ 2,272,324.06	$ (1,395,848.56)	$ (86,994.79)	$ -	$ -	No	
39	23658	23658	30842327	V-071 Valve Auto - West Lane & Hammertown, 3V, Ph. 1	Stockton	Snelson	16-Sep-13	1-Nov-13	$ 1,599,418.00	$ 1,301,422.85	$ 262,560.94	$ 328,428.33	$ 654,145.49	$ 56,288.09	$ (297,995.15)	$ -	$ -	No	Accelerated from 2014 to 2013 to offset delays on other projects.
40	23647	23647	30842329	V-050 Valve Auto - Winton Avenue, 1V, Ph. 1	Hayward	GT/GC	21-Mar-13	11-Jul-13	$ 934,217.00	$ 990,926.47	$ 346,310.26	$ 124,215.91	$ 432,022.22	$ 88,378.08	$ 56,709.47	$ -	$ -	No	
41	23603	23603	30843884	V-016 Valve Auto - Crystal Springs, 4V, Ph. 1	Hillsborough	Underground	22-Jul-13	5-Dec-13	$ 4,392,392.00	$ 4,355,013.51	$ 412,843.40	$ 1,292,148.79	$ 4,836,880.29	$ (2,186,858.97)	$ (37,378.49)	$ -	$ -	No	Delayed from 2012 to 2013 due to permitting delays.
42	24077	27594	30843913	R-007 L-108_1A REPL 2.19MI MP 37.14-38.17 PH1	Stockton	Snelson	23-Oct-13	20-Dec-13	$ 12,691,746.00	$ 8,107,777.91	$ 705,932.44	$ 1,478,383.19	$ 5,110,870.00	$ 812,776.77	$ (4,583,968.09)	$ 184.49	$ -	No	Accelerated from 2014 to 2013 to incorporate adjacent segments identified as high priority upon completion of data validation. Job Estimate (JE) in progress.
43	24017	24017	30846924	I-003 L-300B MP 299-351.8 UPGRADE PH-1	Fresno	GT/GC	14-Feb-13	25-Oct-13	$ 11,916,445.00	$ 12,665,527.73	$ 4,805,285.95	$ 3,492,364.11	$ 2,921,735.15	$ 1,446,142.52	$ 749,082.73	$ -	$ -	No	
44	24023	24023	30846926	I-005 L-300A MP 299-352 UPGRADE PH-1	Fresno	GT/GC	25-Mar-13	27-Jul-13	$ 12,223,488.00	$ 12,444,856.38	$ 3,926,225.65	$ 2,766,102.95	$ 4,436,665.77	$ 1,315,862.01	$ 221,368.38	$ -	$ -	No	
45	24025	24025	30846928	I-006 L-132 MP 31.96-38.39 UPGRADE PH-1	Hillsborough	Underground	30-Sep-13	13-Dec-13	$ 2,750,138.00	$ 5,123,302.10	$ 530,605.26	$ 460,598.48	$ 2,379,414.61	$ 1,752,683.75	$ 2,373,164.10	$ -	$ -	Yes	Delayed from 2012 to 2013 to coordinate with Crystal Springs Valve Auto project which was rescheduled due to permitting delays for efficiency and cost effectiveness.
46	23365	23366	30847128	R-029 L-109 REPL 0.71MI MP 9.27-9.87 Spread 6A	Mountain View	Snelson	20-Jul-12	20-Dec-13	$ 11,097,878.39	$ 13,297,348.77	$ 787,507.59	$ 652,657.34	$ 10,369,467.15	$ 1,494,805.62	$ 2,199,470.38	$ 7,088.93	$ -	Yes	This portion of the 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; however, it has now been delayed until 2014 to coincide with other work on the line so that portion has been split to a separate project (PSRS 30791) and this portion is now being reported for completeness despite the 2012 tie-in date. Risks realized on the 2012 portion of this project were reported in Q1-13 Table 19-1.
47	24281	30014	30847360	V-030 Valve Auto - Antioch Terminal, 5V, Ph. 1	Antioch	ARB	22-Jul-13	19-Dec-13	$ 2,874,570.00	$ 4,442,412.10	$ 1,021,707.53	$ 730,898.40	$ 2,731,705.25	$ (41,899.08)	$ 1,567,842.10	$ -	$ -	Yes	
48	24288	24288	30847365	V-038 Valve Auto - San Pablo, 3V, Ph. 1	San Pablo	GT/GC	12-Mar-13	18-Apr-13	$ 1,103,042.00	$ 541,632.18	$ 180,621.40	$ 167,589.21	$ 362,575.00	$ (169,153.43)	$ (561,409.82)	$ -	$ -	No	
49	24284	24284	30847366	V-032 Valve Auto - SP3-Line 191 Mtr Sta, 4V, Ph 1	Pittsburg	GT/GC	22-Jan-13	19-Mar-13	$ 431,090.00	$ 303,317.04	$ 107,506.82	$ 71,529.14	$ 481,176.08	$ (356,895.00)	$ (127,772.96)	$ -	$ -	No	
50	24889	24889	30865359	R-124 DFM-1306-06 REPL 0.01MI MP 0.00-0.01 PH1	Sonoma	GT/GC	30-Jul-13	16-Aug-13	$ 415,359.00	$ 335,726.48	$ 278,235.89	$ 47,962.55	$ 140,823.08	$ 76,959.66	$ (79,632.52)	$ 208,254.70	$ -	No	
51	24895	24895	30865385	R-110 DFM-3008-01 REPL 0.05MI MP 7.99-8.02 PH1	Walnut Creek	ARB	3-Jun-13	11-Oct-13	$ 1,136,873.00	$ 206,769.87	$ 34,259.68	$ -	$ 6,209.79	$ 404,897.67	$ (930,103.13)	$ 238,597.27	$ -	No	Project completed in conjunction with and included in Job Estimate (JE) for Valve Auto project Walnut Ave (PSRS 23631).
52	23845	27960	30894011	R-133 L-167 REPL 4.75MI MP 29.77-34.53 PH1	Yuba City	GC/Barnard	8-Apr-13	24-Jul-13	$ 27,628,200.00	$ 22,824,905.92	$ 3,704,356.49	$ 3,043,075.10	$ 14,444,622.71	$ 1,632,851.62	$ (4,803,294.08)	$ -	$ -	No	
53	23698	26843	30915264	R-051 L-210A REPL 1.27MI MP 24.14-25.41 PH1	Napa	GT/GC	28-May-13	27-Aug-13	$ 7,088,981.00	$ 5,322,351.34	$ 1,642,704.74	$ 869,616.49	$ 1,257,335.14	$ 1,552,694.97	$ (1,766,629.66)	$ -	$ -	No	Delayed from 2012 to 2013 in order to minimize revenue impacts to land owners.
54	27532	27532	30930252	V-031A Valve Auto - California, 1V, Ph. 1	Pittsburg	ARB	7-Aug-13	14-Nov-13	$ 2,018,640.00	$ 1,172,907.37	$ 190,047.57	$ 457,556.77	$ 2,425,304.38	$ (1,900,001.35)	$ (845,732.63)	$ -	$ -	No	Valve Automation site selected at California Ave. (1 of 2) will be automated instead of Antioch Town Meter Station for constructability and cost reasons.
55	24902	27712	30935230	R-131 L-119B-1 REPL 0.03MI MP 0.00-0.03 PH1	Sacramento	GT/GC	8-May-13	14-Jun-13	$ 1,325,977.00	$ 1,321,891.60	$ 736,983.27	$ 161,422.53	$ 224,321.75	$ 199,164.05	$ (4,085.40)	$ -	$ -	No	Delayed from 2012 to 2013 for efficiency reasons to coordinate work with L-119B Tests planned in 2013.
56	24903	24903	30939632	R-139 L-131Y REPL 0.01MI MP 0.53-0.54 PH1	Brannan Isld Park	GT/GC	25-Apr-13	10-May-13	$ 597,584.00	$ 564,345.69	$ 349,921.68	$ 18,089.52	$ 124,631.66	$ 71,702.83	$ (33,238.31)	$ -	$ -	No	Delayed from 2012 to 2013 to allow more time for engineering after a portion of the line was deactivated.
57	23470	27890	30940034	R-132 DFM-7222-01 REPL 10.23MI MP 0.99-11.16 PH1	Turlock	Snelson	12-Jul-13	16-Nov-13	$ 43,732,738.00	$ 31,680,536.89	$ 842,510.37	$ 2,542,402.94	$ 30,157,975.40	$ (1,848,999.23)	$ (12,052,201.11)	$ 13,352.59	$ -	No	Added as new replacement project from filed test project (PSRS 28511) and accelerated from 2014 to 2013 due to a necessary diameter increase on the line for a capacity increase.
58	27893	27893	30941517	V-039A Valve Auto - Clayton Reg Station, 1V, Ph. 1	Concord	GT/GC	3-Jun-13	15-Aug-13	$ 1,956,148.00	$ 1,530,922.47	$ 388,506.10	$ 201,000.59	$ 818,138.07	$ 123,277.71	$ (425,225.53)	$ -	$ -	No	Valve Automation site selected at Clayton Regulator Station instead of Crystal Ranch for constructability and cost reasons. Delayed from 2012 to 2013 to allow time for engineering and planning at this new location.
59	23688	27979	30943472	R-134 L-114_2 REPL 3.59MI MP 12.68-16.54 PH1	Brentwood	GT/GC	14-Jan-13	19-Oct-13	$ 25,480,174.37	$ 25,571,711.20	$ 5,165,114.41	$ 4,531,428.72	$ 11,377,821.41	$ 4,499,339.13	$ 91,536.83	$ 1,992.47	$ -	No	Delayed from 2012 to 2013 due to complicated installation methods which require an additional easement and to coordinate with other work in the City of Brentwood.
60	23790	25790	30943473	R-069 L-050A Transfer 5.09MI MP 2.55-7.60 PH1	Yuba City	GT/GC	19-Jul-13	1-Nov-13	$ 8,300,905.00	$ 2,258,885.15	$ 1,163,199.47	$ 97,144.71	$ 608,178.69	$ 390,362.28	$ (6,042,019.85)	$ -	$ -	No	Added as new replacement/transfer project from filed test project as a result of data validation.
61	23743	28091	30947578	R-140 L-118A Transfer 6.15MI MP 0.00-5.62 PH1	Fresno	GT/GC	N/A	5-Oct-13	$ 622,594.00	$ 3,908.04	$ -	$ 47,770.80	$ 114,766.53	$ (158,629.29)	$ (618,685.96)	$ -	$ -	No	Added new project for this transfer to distribution because a new line is being installed instead of L-111A and L-118A which run parallel. Both of these lines are being transferred to distribution where they connect to the new line. JE in progress.
62	N/A	29461	30969689	V-083 Valve Auto - Helm Tap Station, 1V, Ph. 1	Fresno	GT/GC	21-May-13	22-Aug-13	$ 499,535.00	$ 448,209.89	$ 175,653.42	$ 95,096.69	$ 143,229.25	$ 34,230.53	$ (51,325.11)	$ -	$ -	No	New Valve Automation project combined with ILI project to increase cost effectiveness and support standardization.
63	N/A	29463	30969692	V-084 Valve Auto - West Ford Ave, 1V, Ph. 1	Fresno	GT/GC	14-Jun-13	29-Aug-13	$ 702,289.00	$ 424,160.87	$ 187,036.88	$ 84,136.35	$ 111,848.99	$ 41,138.65	$ (278,128.13)	$ -	$ -	No	New Valve Automation project combined with ILI project to increase cost effectiveness and support standardization.
64	N/A	29637	30976004	V-087 Valve Auto - L-138 Adams Elm Mtr RegStn, 1V, Ph. 1	Fresno	Snelson	17-Jun-13	30-Aug-13	$ 694,886.00	$ 535,066.08	$ 152,075.14	$ 84,202.95	$ 270,135.11	$ 28,652.88	$ (159,819.92)	$ -	$ -	No	New Valve Automation project combined with ILI project to increase cost effectiveness and support standardization.
65	24183	25897	41482931	TIM-042-12, Line L-057A-MD1, McDonald Island	McDonald Island	ARB	14-Jan-13	15-Feb-13	$ 1,938,702.00	$ 1,451,954.96	$ 542,076.14	$ 66,448.96	$ 798,867.01	$ 44,562.85	$ (486,747.04)	$ 36,318.57	$ -	No	Delayed from 2012 to 2013 to aid in balancing the use of GC resources.
66	23511	25860	41600040	TIM-022C-12, Line L-191-1, Walnut Creek	Walnut Creek	ARB	3-Jun-13	26-Jul-13	$ 4,650,684.00	$ 3,618,341.80	$ 1,310,553.53	$ 36,685.14	$ 2,829,500.64	$ 403,440.18	$ (1,032,342.20)	$ 800,446.16	$ -	No	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012. JE includes TIM-022C-12 and TIM-022D-12- split occurred post estimate. TIM-022B-12 is ~61% of original length.

TABLE 11-1
PACIFIC GAS AND ELECTRIC COMPANY
PROJECT STATUS SUMMARY - PROJECTS COMPLETED
JANUARY 1, 2013 – DECEMBER 31, 2013

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
67	23511	25860	41600040	TIM-022D-12, Line L-191-1, Walnut Creek	Walnut Creek	ARB	3-Jun-13	26-Jul-13	See TIM-022C-12	See TIM-022C-12	See TIM-022C-12	See TIM-022C-12	See TIM-022C-12	See TIM-022C-12	See TIM-022C-12	See TIM-022C-12		No	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012. JE includes TIM-022C-12 and TIM-022D-12- split occurred post estimate. TIM-022B-12 is ~61% of original length.
68	23511	25860	41600040	TIM-022B-12, Line L-191-1, Walnut Creek	Walnut Creek	ARB	3-Jun-13	23-Aug-13	See TIM-022C-12	See TIM-022C-12	See TIM-022C-12	See TIM-022C-12	See TIM-022C-12	See TIM-022C-12	See TIM-022C-12	See TIM-022C-12		No	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012. JE includes TIM-022C-12 and TIM-022D-12- split occurred post estimate. TIM-022B-12 is ~61% of original length.
69	23511	25861	41600041	T-023-12, Line L-191-1, Martinez	Martinez	ARB	9-Jul-13	15-Oct-13	$ 2,382,051.00	$ 2,920,406.01	$ 932,073.66	$ 18,275.72	$ 1,781,953.76	$ 188,102.87	$ 538,355.01	$ 1,448.39	$ -	Yes	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012.
70	23856	25891	41600049	T-039A-12, Line DFM-1615-01, Modesto	Modesto	Snelson	10-Jul-13	18-Oct-13	$ 2,704,533.00	$ 2,688,118.96	$ 323,554.26	$ 22,013.54	$ 2,276,600.17	$ 65,950.99	$ (16,414.04)	$ 2,286.29	$ -	No	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012.
71	24183	25896	41600051	TIM-043-12, Line L-057A-MD1, McDonald Island	McDonald Island	ARB	14-Jan-13	15-Feb-13	$ 1,809,361.00	$ 1,151,561.59	$ 283,709.57	$ 76,342.78	$ 769,846.97	$ 21,662.27	$ (657,799.41)	$ 1,151,561.59	$ -	No	Delayed from 2012 to 2013 to aid in balancing the use of GC resources.
72	23510	25902	41600053	T-046-12, Line L-138, Fresno	Fresno	Snelson	12-Apr-13	24-May-13	$ 2,587,895.00	$ 2,574,165.16	$ 352,971.16	$ 84,680.74	$ 2,070,542.98	$ 65,970.28	$ (13,729.84)	$ -	$ -	No	Delayed from 2012 to 2013 to minimize customer impact during clearance.
73	23493	25820	41600057	T-051A-12, Line L-142N, Bakersfield	Bakersfield	Snelson	1-Jul-13	21-Sep-13	$ 6,821,948.00	$ 8,525,612.26	$ 1,216,703.14	$ 218,441.36	$ 6,996,665.89	$ 93,801.87	$ 1,703,664.26	$ 303,673.74	$ -	Yes	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012.
74	23493	25820	41600057	T-051B-12, Line L-142N, Bakersfield	Bakersfield	Snelson	1-Jul-13	21-Sep-13	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	Yes	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012.
75	23493	25820	41600057	T-051C-12, Line L-142N, Bakersfield	Bakersfield	Snelson	1-Jul-13	21-Sep-13	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	Yes	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012.
76	23493	25820	41600057	T-051D-12, Line L-142N, Bakersfield	Bakersfield	Snelson	1-Jul-13	3-Oct-13	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	Yes	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012.
77	23493	25820	41600057	T-051E-12, Line L-142N, Bakersfield	Bakersfield	Snelson	1-Jul-13	19-Oct-13	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	See T-051A-12	Yes	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012.
78	23554	25866	41600069	T-082-12, Line L-119B, Sacramento	Sacramento	SE Pipe Line	28-Mar-13	27-Apr-13	$ 1,430,196.00	$ 1,157,999.08	$ 381,124.52	$ 14,421.13	$ 702,566.62	$ 59,886.81	$ (272,196.92)	$ -	$ -	No	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012.
79	23874	25841	41613030	T-015-12, Line L-131_2, Oakley	Oakley	H&M	6-Mar-13	1-May-13	$ 1,991,409.00	$ 892,673.44	$ 282,967.38	$ 14,959.08	$ 980,831.88	$ (386,084.90)	$ (1,098,735.56)	$ -	$ -	No	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management (IM) in 2012.
80	24188	25870	41617917	T-028-12, Line DFM-2403-12, Fremont	Fremont	Underground	6-May-13	21-Jul-13	$ 3,322,991.00	$ 3,496,432.35	$ 538,358.84	$ 16,846.05	$ 2,763,623.13	$ 177,604.33	$ 173,441.35	$ -	$ -	No	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012.
81	23856	25889	41617922	T-038-12, Line DFM-1615-01, Modesto	Modesto	Snelson	1-Jul-13	15-Sep-13	$ 4,154,074.00	$ 5,988,108.93	$ 1,081,838.43	$ 71,030.66	$ 4,692,420.30	$ 142,819.54	$ 1,834,034.93	$ 126,636.99	$ -	Yes	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012.
82	23533	25833	41617931	TIM-065-12, Line L-021C, Penngrove	Penngrove	ARB	14-Aug-13	6-Oct-13	$ 3,076,464.00	$ 1,587,696.07	$ 469,567.07	$ 38,480.55	$ 1,082,374.29	$ (2,725.84)	$ (1,488,767.93)	$ 412,825.40	$ -	No	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012.
83	23554	25864	41617941	T-081-12, Line L-119B, North Highlands	North Highlands	GT/GC	14-Aug-13	7-Oct-13	$ 2,110,424.00	$ 2,053,758.48	$ 1,318,661.57	$ 46,258.87	$ 463,395.57	$ 225,442.47	$ (56,665.52)	$ 23,251.12	$ -	No	Delayed from 2012 to 2013 to accommodate other higher priority tests for Integrity Management in 2012.
84	24216	25884	41617946	T-093-12, Line L-210C, Vallejo	Vallejo	ARB	1-Apr-13	4-May-13	$ 2,132,881.00	$ 2,497,488.46	$ 799,930.04	$ 48,560.65	$ 1,523,561.65	$ 125,436.12	$ 364,607.46	$ 97,351.48	$ -	Yes	Delayed from 2012 to 2013 because large customer could not take an outage in 2012.
85	23905	25904	41622643	T-101-12, Line DFM-3010-01, Antioch	Antioch	ARB	21-Jan-13	4-Feb-13	$ 1,664,377.00	$ 1,137,999.91	$ 330,943.15	$ 5,569.79	$ 786,573.49	$ 14,913.48	$ (526,377.09)	$ 1,065,918.54	$ -	No	Delayed from 2012 to 2013 to coordinate with the customer planned shutdown during hydrotest.
86	23690	27760	41710903	T-285-13, Line X6526, Kettleman City	Kettleman City	GT/GC	1-Jul-13	8-Oct-13	$ 1,459,879.00	$ 1,375,652.38	$ 748,689.13	$ 114,119.74	$ 429,199.77	$ 83,643.74	$ (84,226.62)	$ 1,375,652.38	$ -	No	Added as a new test project from filed TAP Replacement project and accelerated from 2014 to 2013 to coordinate with other work in the vicinity.
87	23872	27648	41743424	TIM-267-13, Line DFM-1813-02, Marina	Marina	Underground	5-Aug-13	23-Sep-13	$ 2,371,402.00	$ 1,397,075.45	$ 351,299.16	$ 14,436.72	$ 1,040,376.30	$ (9,036.73)	$ (974,326.55)	$ 412,892.63	$ -	No	
88	23872	27649	41743426	T-269A-13, Line DFM-1813-02, Monterey	Seaside	Underground	1-Jul-13	12-Aug-13	$ 3,216,887.00	$ 2,692,598.47	$ 421,772.96	$ 18,083.35	$ 2,151,715.47	$ 101,026.69	$ (524,288.53)	$ 2,314.70	$ -	No	JE includes T-269B-13. T-269A-13 is ~37% of original length.
89	23872	27649	41743426	T-269B-13, Line DFM-1813-02, Monterey	Monterey	Underground	23-Jul-13	12-Sep-13	See T-269A-13	See T-269A-13	See T-269A-13	See T-269A-13	See T-269A-13	See T-269A-13	See T-269A-13	See T-269A-13	See T-269A-13	No	JE includes T-269B-13. T-269A-13 is ~37% of original length.
90	23472	27651	41743428	T-272A-13, Line DFM-7223-01, Turlock	Turlock	Snelson	12-Aug-13	24-Oct-13	$ 2,519,543.00	$ 3,473,653.29	$ 458,598.35	$ 41,833.25	$ 2,881,419.73	$ 91,801.96	$ 954,110.29	$ -	$ -	Yes	
91	23472	27651	41743428	T-272B-13, Line DFM-7223-01, Turlock	Turlock	Snelson	12-Aug-13	8-Oct-13	See T-272A-13	See T-272A-13	See T-272A-13	See T-272A-13	See T-272A-13	See T-272A-13	See T-272A-13	See T-272A-13	See T-272A-13	Yes	
92	23478	27652	41743429	TIM-273-13, Line DFM-7226-01, Modesto	Modesto	Snelson	29-Apr-13	8-Jun-13	$ 2,875,479.00	$ 2,283,406.34	$ 539,378.31	$ 71,008.31	$ 1,603,358.06	$ 69,661.66	$ (592,072.66)	$ 689,409.75	$ -	No	
93	23570	27603	41744015	T-217-13, Line DFM-0215-01, Belmont	Belmont	Underground	14-Jun-13	28-Jul-13	$ 2,226,907.00	$ 1,950,366.61	$ 288,556.64	$ 15,079.05	$ 1,555,705.76	$ 91,025.16	$ (276,540.39)	$ 1,823,308.09	$ -	No	
94	23532	27604	41744017	T-218-13, Line L-021B, Napa	Napa	ARB	29-Apr-13	8-Jun-13	$ 2,300,066.00	$ 2,337,922.19	$ 593,504.84	$ 86,213.66	$ 1,452,978.58	$ 205,225.11	$ 37,856.19	$ -	$ -	No	
95	23532	27606	41744221	T-220-13, Line L-021B, Petaluma	Petaluma	ARB	19-Jun-13	26-Jul-13	$ 2,139,092.00	$ 1,828,436.53	$ 507,096.32	$ 18,003.83	$ 1,157,949.44	$ 145,386.94	$ (310,655.47)	$ 1,382.02	$ -	No	
96	24212	27608	41744226	T-223A-13, Line L-050A-1, Marysville	Marysville	Barnard	6-May-13	12-Jul-13	$ 2,170,350.00	$ 2,437,278.54	$ 393,649.03	$ 30,714.05	$ 1,835,528.11	$ 177,387.35	$ 266,928.54	$ 325,667.68	$ -	Yes	
97	23565	27609	41744230	T-224A-13, Line DFM-0604-01, Vacaville	Vacaville	Barnard	21-May-13	21-Jun-13	$ 2,318,531.00	$ 1,884,204.62	$ 325,427.40	$ 51,812.65	$ 1,434,202.95	$ 72,761.62	$ (434,326.38)	$ 1,881,982.24	$ -	No	
98	23569	27611	41744232	T-225A-13, Line DFM-0604-07, Vacaville	Vacaville	ARB	23-Aug-13	30-Oct-13	$ 3,506,447.00	$ 3,654,758.39	$ 825,949.37	$ 25,770.29	$ 2,626,254.85	$ 176,783.88	$ 148,311.39	$ 288,462.11	$ -	No	
99	23569	27611	41744232	T-225B-13, Line DFM-0604-07, Vacaville	Vacaville	ARB	23-Aug-13	22-Nov-13	See T-225A-13	See T-225A-13	See T-225A-13	See T-225A-13	See T-225A-13	See T-225A-13	See T-225A-13	See T-225A-13	See T-225A-13	No	
100	23876	27613	41744236	T-226-13, Line DFM-0817-01, San Jose	San Jose	SE Pipe Line	11-Mar-13	4-Apr-13	$ 1,950,753.00	$ 1,575,955.21	$ 487,643.24	$ 27,266.98	$ 991,410.02	$ 69,634.97	$ (374,797.79)	$ 9,634.05	$ -	No	
101	23872	27632	41744767	T-268-13, Line DFM-1813-02, Seaside	Seaside	Underground	1-Jul-13	12-Aug-13	$ 2,175,967.00	$ 1,387,964.38	$ 268,224.57	$ 14,464.68	$ 1,077,455.37	$ 27,819.76	$ (788,002.62)	$ 6,840.12	$ -	No	
102	23550	27614	41748703	T-228-13, Line L-118B, Madera	Madera	Snelson	14-Jun-13	15-Aug-13	$ 2,205,191.00	$ 3,515,316.77	$ 499,493.17	$ 42,925.00	$ 2,806,968.53	$ 165,930.07	$ 1,310,125.77	$ 62,251.82	$ -	Yes	
103	23550	27615	41748704	T-229A-13, Line L-118B, Madera	Madera	Snelson	17-May-13	21-Jun-13	$ 2,541,348.00	$ 2,357,067.80	$ 528,355.00	$ (15,197.38)	$ 1,812,122.52	$ 31,787.66	$ (184,280.20)	$ 2,350,087.24	$ -	No	JE includes both T-229A-13 and T-229C-13 because split occurred post estimate. T-229A-13 is ~11% of original length and T-229C-13 ties in in Q3.
104	23550	27615	41748704	T-229C-13, Line L-118B, Madera	Madera	Snelson	17-May-13	8-Jul-13	See T-229A-13	See T-229A-13	See T-229A-13	See T-229A-13	See T-229A-13	See T-229A-13	See T-229A-13	See T-229A-13	See T-229A-13	No	JE includes both T-229A-13 and T-229C-13 because split occurred post estimate. T-229A-13 is ~11% of original length and T-229C-13 ties in in Q3.
105	23550	27617	41748705	T-230-13, Line L-118B, Madera	Madera	Snelson	26-Jul-13	12-Oct-13	$ 2,697,204.00	$ 2,796,693.75	$ 311,421.98	$ 55,013.84	$ 2,223,008.53	$ 207,249.40	$ 99,489.75	$ 1,587,353.71	$ -	No	
106	23499	27621	41748974	T-239-13, Line L-162A, Tracy	Tracy	Snelson	12-Jul-13	14-Aug-13	$ 2,326,293.00	$ 1,472,396.88	$ 209,752.11	$ 5,942.32	$ 1,199,223.31	$ 57,479.14	$ (853,896.12)	$ 1,472,396.88	$ -	No	
107	23499	27622	41748975	T-240-13, Line L-162A, Tracy	Tracy	Snelson	7-Jun-13	15-Jul-13	$ 2,080,533.00	$ 1,172,545.62	$ 146,547.36	$ 5,445.97	$ 967,764.03	$ 52,788.26	$ (907,987.38)	$ 1,076.22	$ -	No	
108	23506	27623	41748976	T-241-13, Line L-177B, Chico	Chico	Barnard	30-May-13	5-Sep-13	$ 3,119,267.00	$ 3,506,773.15	$ 688,696.74	$ 159,171.74	$ 2,497,055.68	$ 161,848.99	$ 387,506.15	$ 139.62	$ -	Yes	
109	23524	28395	41756005	T-206-13, Line L-187, King City	King City	Underground	8-Apr-13	20-May-13	$ 2,495,220.00	$ 2,788,312.06	$ 552,483.03	$ 53,134.94	$ 2,123,838.25	$ 58,855.84	$ 293,092.06	$ 812,501.74	$ -	Yes	
110	23524	28407	41756006	T-207-13, Line L-187, Greenfield	Greenfield	Underground	8-Apr-13	13-Jun-13	$ 2,103,598.00	$ 1,881,681.74	$ 356,516.73	$ 31,563.67	$ 1,462,075.38	$ 31,525.96	$ (221,916.26)	$ 600,238.06	$ -	No	
111	23524	28408	41756007	T-208A-13, Line L-187, Soledad	Soledad	Underground	22-May-13	28-Jun-13	$ 3,536,097.00	$ 3,219,604.31	$ 525,491.88	$ 81,829.46	$ 2,570,612.69	$ 41,670.28	$ (316,492.69)	$ 208,914.49	$ -	No	JE includes T-208A-13, T-208B-13 and T-208C-13 because split occurred post estimate. T-208A-13 is ~29% of original length and T-208B-13, T-208C-13 tie-in in Q3.
112	23524	28408	41756007	T-208B-13, Line L-187, Soledad	Soledad	Underground	22-May-13	26-Jul-13	See T-208A-13	See T-208A-13	See T-208A-13	See T-208A-13	See T-208A-13	See T-208A-13	See T-208A-13	See T-208A-13	See T-208A-13	No	JE includes T-208A-13, T-208B-13 and T-208C-13 because split occurred post estimate. T-208A-13 is ~29% of original length and T-208B-13, T-208C-13 tie-in in Q3.

TABLE 11-1
PACIFIC GAS AND ELECTRIC COMPANY
PROJECT STATUS SUMMARY - PROJECTS COMPLETED
JANUARY 1, 2013 – DECEMBER 31, 2013

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
113	23524	28408	41756007	T-208C-13, Line L-187, Soledad	Soledad	Underground	22-May-13	9-Aug-13	See T-208A-13	See T-208A-13	See T-208A-13	See T-208A-13	See T-208A-13	See T-208A-13	See T-208A-13	See T-208A-13	See T-208A-13	No	JE includes T-208A-13, T-208B-13 and T-208C-13 because split occurred post estimate. T-208A-13 is ~29% of original length and T-208B-13, T-208C-13 tie-in in Q3.
114	23524	28409	41756008	T-209-13, Line L-187, Soledad	Soledad	Underground	20-Jun-13	17-Aug-13	$ 2,264,813.00	$ 1,242,984.71	$ 228,486.75	$ 24,900.59	$ 944,156.43	$ 45,440.94	$ (1,021,828.29)	$ -	$ -	No	
115	23524	28410	41756009	T-210-13, Line L-187, Gonzales	Gonzales	Underground	10-Jul-13	30-Aug-13	$ 2,029,602.00	$ 1,196,677.34	$ 237,341.12	$ 29,587.71	$ 915,352.79	$ 14,395.72	$ (832,924.66)	$ 17,158.88	$ -	No	
116	23542	28411	41756012	T-211A-13, Line L-187, Chualar	Chualar	Underground	15-Aug-13	20-Sep-13	$ 3,027,083.00	$ 2,585,661.71	$ 400,570.13	$ 72,209.41	$ 2,043,424.40	$ 69,457.77	$ (441,421.29)	$ 652.18	$ -	No	JE includes T-211B-13 found in Table 12-1.
117	23542	28411	41756012	T-211B-13, Line L-187, Chualar	Chualar	Underground	15-Aug-13	10-Oct-13	See T-211A-13	See T-211A-13	See T-211A-13	See T-211A-13	See T-211A-13	See T-211A-13	See T-211A-13	See T-211A-13	See T-211A-13	No	JE includes T-211B-13 found in Table 12-1.
118	23560	23560	41756013	T-310-14, Line DFM-0141-01, Crockett	Crockett	ARB	6-May-13	19-May-13	$ 1,620,636.00	$ 818,575.71	$ 223,432.99	$ 17,155.96	$ 554,823.53	$ 23,163.23	$ (802,060.29)	$ 180,067.50	$ -	No	Accelerated from 2014 to 2013 due to Class 3 Location.
119	N/A	28473	41801221	T-038B-11, Line L-132, Daly City	Daly City	Snelson	N/A	25-Feb-13	$ 331,131.00	$ 320,125.07	$ 36,610.26	$ -	$ 275,365.96	$ 8,148.85	$ (11,005.93)	$ 320,125.07	$ -	No	Delayed from 2011 to 2013 and split from T-038-11 (PSRS 24530) to coordinate this pipeline section within Martin Station within that station rebuild project.
120	23748	28495	41801222	T-281B-13, Line L-191, Antioch	Antioch	ARB	27-Aug-13	1-Oct-13	$ 2,647,577.00	$ 2,115,281.21	$ 371,446.61	$ 57,160.73	$ 1,533,265.42	$ 153,408.45	$ (532,295.79)	$ -	$ -	No	Added new test project from filed replacement project as a result of data validation.
121	23892	29093	41802284	T-227-13, Line DFM-1023-01, Redding	Redding	Barnard	12-Jul-13	16-Aug-13	$ 2,229,921.00	$ 1,655,983.62	$ 287,714.21	$ 14,825.27	$ 1,308,087.90	$ 45,356.24	$ (573,937.38)	$ 172,209.61	$ -	No	
122	23911	31386	41858968	T-331A-14, Line DFM-1501-01, Yuba City	Yuba City	ARB	13-May-13	24-Jul-13	$ 3,033,154.00	$ 5,989,808.98	$ 941,108.53	$ 102,316.39	$ 4,799,257.44	$ 147,126.62	$ 2,956,654.98	$ 287,733.34	$ -	Yes	Accelerated from 2014 to 2013 to offset delays on other projects. JE includes T-331B-14 also.
123	23911	31386	41858968	T-331B-14, Line DFM-1501-01, Yuba City	Yuba City	ARB	13-May-13	30-Oct-13	See T-331A-14	See T-331A-14	See T-331A-14	See T-331A-14	See T-331A-14	See T-331A-14	See T-331A-14	See T-331A-14	See T-331A-14	Yes	Accelerated from 2014 to 2013 to offset delays on other projects. JE includes T-331B-14 also.
124	23483	23483	41859176	T-360-14, Line DFM-7226-13, Modesto	Modesto	Snelson	29-Apr-13	8-Jun-13	$ 1,972,730.00	$ 1,305,677.37	$ 203,319.42	$ 7,188.63	$ 1,069,742.87	$ 25,426.45	$ (667,052.63)	$ 976.72	$ -	No	Accelerated from 2014 to 2013 to offset delays on other projects.
125	23567	23567	41859416	T-318A-14, Line DFM-0604-06, Vacaville	Vacaville	ARB	8-Aug-13	9-Oct-13	$ 3,479,729.00	$ 2,700,791.53	$ 499,403.74	$ 61,039.97	$ 1,971,471.29	$ 168,876.53	$ (778,937.47)	$ 1,005,577.81	$ -	No	Accelerated from 2014 to 2013 to offset delays on other projects.
126	23567	23567	41859416	T-318B-14, Line DFM-0604-06, Vacaville	Vacaville	ARB	8-Aug-13	30-Oct-13	See T-318A-14	See T-318A-14	See T-318A-14	See T-318A-14	See T-318A-14	See T-318A-14	See T-318A-14	See T-318A-14	See T-318A-14	No	Accelerated from 2014 to 2013 to offset delays on other projects.
127	N/A	30025	41867295	T-013C-12, Line L-109, Daly City	Daly City	ARB	26-Jul-13	12-Sep-13	$ 2,575,831.00	$ 4,027,231.81	$ 526,697.67	$ 76,533.25	$ 3,300,504.26	$ 123,496.63	$ 1,451,400.81	$ 4,027,231.81	$ -	Yes	Delayed from 2012 to 2013 due to permitting delays with Caltrans.
128	23926	30056	41867640	T-282A-13, Line L-172A, West Sacramento	West Sacramento	Barnard	23-Aug-13	25-Oct-13	$ 3,807,986.00	$ 3,453,008.46	$ 555,692.69	$ 24,555.55	$ 2,730,207.35	$ 142,552.87	$ (354,977.54)	$ 3,442,933.56	$ -	No	Added as a new test, some segments from replacement and some new to PSEP - initially proposed replacement project could not be completed due to site conditions limiting constructability.
129	23926	30056	41867640	T-282B-13, Line L-172A-1, West Sacramento	West Sacramento	Barnard	23-Aug-13	25-Oct-13	See T-282A-13	See T-282A-13	See T-282A-13	See T-282A-13	See T-282A-13	See T-282A-13	See T-282A-13	See T-282A-13	See T-282A-13	No	Added as a new test, some segments from replacement and some new to PSEP - initially proposed replacement project could not be completed due to site conditions limiting constructability.
130	N/A	30220	41877582	TS-003-13, Line GCUST5814, Palo Alto	Palo Alto	ARB	17-Jun-13	17-Jul-13	$ 59,396.00	$ 72,313.35	$ 42,550.85	$ 1,840.35	$ 27,338.78	$ 583.37	$ 12,917.35	$ 72,313.35	$ -	Yes	Added new test from filed replacement project and accelerated from 2014 to 2013 for constructability reasons.
131	23769	30531	41899453	T-284-13, Line DFM-1815-02, Monterey	Monterey	Underground	16-Sep-13	31-Oct-13	$ 2,054,520.00	$ 1,282,685.69	$ 183,597.64	$ 14,430.51	$ 1,054,497.65	$ 30,159.89	$ (771,834.31)	$ 1,282,685.69	$ -	No	Accelerated to support system needs.
132	23521	31108	41916188	T-303B-14, Line L-186, Dos Palos	Dos Palos	Underground	10-Sep-13	23-Nov-13	$ 3,498,921.00	$ 4,031,042.96	$ 735,088.50	$ 58,129.46	$ 3,095,059.72	$ 142,765.28	$ 532,121.96	$ 73,706.49	$ -	Yes	Accelerated from 2014 to 2013 to offset delays on other projects.
133	23521	31109	41916192	T-304-14, Line L-186, Dos Palos	Dos Palos	Underground	10-Sep-13	8-Dec-13	$ 2,973,163.00	$ 2,594,837.90	$ 430,712.28	$ 59,188.45	$ 2,002,059.81	$ 102,877.36	$ (378,325.10)	$ -	$ -	No	Accelerated from 2014 to 2013 to offset delays on other projects.
134	24219	29707	41918261	T-355-14, Line L-300B, Kern	Bakersfield	Snelson	7-Oct-13	30-Oct-13	$ 3,071,278.00	$ 1,799,285.42	$ 122,750.40	$ 63,008.59	$ 1,528,210.10	$ 85,316.33	$ (1,271,992.58)	$ 127,203.89	$ -	No	Accelerated from 2014 to 2013 to offset delays on other projects.
135	23733	31372	41931283	T-337-14, Line DFM-1603-03, Manteca	Manteca	GT/GC	23-Sep-13	22-Oct-13	$ 1,705,098.00	$ 605,864.33	$ 275,700.72	$ 13,504.16	$ 265,189.55	$ 51,469.90	$ (1,099,233.67)	$ 575,889.75	$ -	No	Added test from filed replacement project as a result of data validation.
136	31511	31511	41942319	T-288A-13, Line L-300B, Bear Valley Springs	Bear Valley Springs	Snelson	7-Oct-13	19-Nov-13	$ 3,566,812.00	$ 2,663,442.81	$ 140,030.24	$ 86,329.88	$ 2,219,226.42	$ 217,856.27	$ (903,369.19)	$ -	$ -	No	Accelerated from 2014 to 2013 to offset delays on other projects.
137	31511	31511	41942319	T-288B-13, Line L-300B, Bear Valley Springs	Bear Valley Springs	Snelson	7-Oct-13	19-Nov-13	See T-288A-13	See T-288A-13	See T-288A-13	See T-288A-13	See T-288A-13	See T-288A-13	See T-288A-13	See T-288A-13	See T-288A-13	No	Accelerated from 2014 to 2013 to offset delays on other projects.
138	23623	23623	97000504	V-034 Valve Auto - Concord Meter Station, 1V, Ph. 1	Concord	GT/GC	29-Jul-13	12-Sep-13	$ 1,438,881.00	$ 897,189.71	$ 310,858.90	$ 126,206.60	$ 252,752.36	$ 207,371.85	$ (541,691.29)	$ -	$ 897,189.71	No	
139	23624	23624	97000505	V-035 Valve Auto - Vine Hill, 1V, Ph. 1	Martinez	ARB	19-Mar-13	2-Jul-13	$ 1,539,371.00	$ 1,955,765.65	$ 589,262.04	$ 165,336.02	$ 1,044,083.42	$ 157,084.17	$ 416,394.65	$ -	$ 1,955,765.65	Yes	Pending cost reallocation ($300,000 to StanPac order 97001801). Once complete, this project will not have a >10% variance over the budget.
140	23622	23622	97000521	V-033 Valve Auto - Los Medanos, 3V, Ph. 1	Concord	GT/GC	13-Apr-13	21-Aug-13	$ 927,949.00	$ 782,199.44	$ 273,175.44	$ 152,963.28	$ 305,994.91	$ 50,065.81	$ (145,749.56)	$ -	$ 782,199.44	No	
141	24909	24909	97000661	R-043 SP4Z RETIRE 0.42MI MP 8.18-8.43 PH1	Oakley	H&M	6-Mar-13	24-Apr-13	$ 259,826.00	$ 410,405.36	$ 108,523.21	$ 3,755.15	$ 334,784.88	$ (36,657.88)	$ 150,579.36	$ -	$ 410,405.36	Yes	Delayed from 2012 to 2013 for efficiency reasons to coordinate work with other PSEP projects in the Antioch Terminal Area.
142	24254	28282	97001181	V-031B Valve Auto Delta Fair, 1V, Ph. 1	Antioch	ARB	15-May-13	4-Oct-13	$ 1,406,045.00	$ 1,684,588.74	$ 402,066.51	$ 483,138.43	$ 2,240,066.77	$ (1,440,682.97)	$ 278,543.74	$ -	$ -	Yes	Valve Automation site selected at Delta Fair (1 of 2) instead of Antioch Town Meter Station for constructability and cost reasons.

TABLE 12-1
PACIFIC GAS AND ELECTRIC COMPANY
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Line #	PSEP Filing PSRS	New PSRS	Project Description	Mobilization Date	Tie-in Date	Job Estimate Amount	Comments
1	23867	26041	R-056 L-220 REPL 4.93 MI MP 20.84-31.65 PH1	7/22/2013	1/10/2014	$ 34,249,047.00	Delayed from 2013 to 2014 due to construction related delays.
2	24009	24009	I-001 L-131 MP 50.5-57.4 UPGRADE PH-1	2/14/2013	1/16/2014	$ 5,786,394.00	Delayed from 2012 to 2013 due to workspace limitations at Milpitas Station and resource allocation to other higher priority PSEP work.
3	N/A	30094	V-068A Valve Auto - Airport & Louise, 3V, Ph. 1	10/1/2013	1/17/2014	$ 2,774,933.00	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	23926	29247	R-037 L-172A REPL 3.06MI MP 75.43-78.53 PH1	8/19/2013	1/27/2014	$ 34,400,009.99	Added as new replacement project as a result of data validation.
5	24272	29275	R-157 DFM-1603-01 REPL 1.42MI MP 0.07-1.30 PH1	9/17/2013	1/27/2014	$ 6,321,674.00	Added as new replacement project from filed test project after most of test was removed due to records verified. Downgrading to distribution pressure because a new 10" transmission line will run parallel.
6	23533	28472	R-144 L-021C REPL 0.89MI MP 50.44-51.40 PH1	10/7/2013	1/30/2014	$ 12,248,463.00	Delayed from 2012 to 2013 due to schedule and workload balancing. Pipe installation was completed in 2013 with tie-in delayed to 2014 due to resource planning constriants during winter when gas loads are high with the T&R crews which are necessary for tie-in activities.
7	N/A	29634	V-085 Valve Auto - L-300A MLV 328.06, 1V, Ph. 1	12/5/2013	3/5/2014	$ -	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.
8	N/A	29635	V-086 Valve Auto - L-300B MLV 327.83, 1V, Ph. 1	12/5/2013	3/6/2014	$ -	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.
9	23811	23811	R-062 DFM-0603-01 REPL 0.68MI MP 0.00-0.57 PH1	7/15/2013	4/21/2014	$ 2,006,181.00	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.
10	23780	29401	R-064 DFM-0604-16 REPL 0.19 MI MP 0.00-0.18 PH1	10/1/2013	4/24/2014	$ 895,352.00	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.
11	24890	27904	R-202 DFM-1607-01 REPL 1.11MI MP 0.00-1.62 PH1	7/1/2013	5/29/2014	$ 5,486,817.00	Accelerated from 2014 to 2013 to accommodate a planned diameter increase from 8" to 12" to increase system capacity.
12	23657	23657	V-054 Valve Auto - Brentwood Terminal, 8V, Ph. 1	9/3/2013	11/14/2014	$ -	Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress.
13	23597	23597	V-010 Valve Auto - Commercial Way, 0V, Ph. 1	4/17/2013	1/7/2014	$ 4,793,539.00	Delayed from 2012 to 2013 due to clearance constraints.

TABLE 13-1
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Line #	PSEP Filing PSRS	New PSRS	Project Description	Mobilization Date	Tie-in Date	Job Estimate Amount	Comments
1	23776	31978	RT-029 DREG5483-NV REPL PH1	1/8/2014	1/21/2014	$ -	JE (Job Estimate) in progress.
2	23749	31970	RT-022 DREG4873-MI REPL PH1	1/15/2014	1/24/2014	$ -	JE in progress.
3	23776	31979	RT-030 STUB8663-STUB8664-STUB8665-NV REPL PH1	1/20/2014	1/31/2014	$ -	JE in progress.
4	23785	32017	RT-066 STUB6099-YO REPL PH1	1/24/2014	2/5/2014	$ -	JE in progress.
5	23787	31998	RT-043 DREG4548-SI REPL PH1	2/1/2014	2/15/2014	$ -	JE in progress.
6	23689	31993	RT-047 DCUST2473-SJ REPL PH1	2/1/2014	2/15/2014	$ -	JE in progress.
7	23749	31972	RT-024 STUB7837-MI REPL PH1	2/17/2014	2/21/2014	$ -	JE in progress.
8	23785	32015	RT-064 DREG4453-YO REPL PH1	2/8/2014	2/21/2014	$ -	JE in progress.
9	23780	29425	R-152 DFM-0604-16 DWNRT 0.31MI MP 0.18-0.50 PH1	2/3/2014	2/27/2014	$ -	Delayed from 2013 to 2014 due to difficulty in acquiring initial as-builts and subsequent design completion. JE in progress.
10	23787	31999	RT-044 DREG4567-SI REPL PH1	2/17/2014	3/1/2014	$ -	JE in progress.
11	23749	31969	RT-021 DREG4872-MI REPL PH1	3/3/2014	3/7/2014	$ -	JE in progress.
12	24890	31595	R-211 L-220 Dresser Coupling Mitigation MP3.02	3/1/2014	3/8/2014	$ -	
13	23657	31596	R-212 L-220 Dresser Coupling Mitigation MP34.11	3/1/2014	3/8/2014	$ -	Added from filed valve auto project then delayed from 2013 to 2014 to coordinate with other work in the vicinity. JE in progress.
14	23749	31971	RT-023 GCUST5901-MI REPL PH1	2/24/2014	3/8/2014	$ -	JE in progress.
15	23787	32000	RT-045 STUB6039-SI REPL PH1	3/3/2014	3/8/2014	$ -	JE in progress.
16	23789	31822	R-207 L-177A REPL 0.01MI MP 26.55-26.55 PH1	3/1/2014	3/14/2014	$ -	JE in progress.
17	23787	32001	RT-046 STUB6041-SI REPL PH1	3/10/2014	3/15/2014	$ -	JE in progress.
18	23689	31996	RT-050 DREG4161-SJ REPL PH1	3/3/2014	3/15/2014	$ -	JE in progress.
19	23529	29053	R-145 L-306 REPL 0.01MI MP 43.30-43.31 PH1	3/19/2014	3/25/2014	$ -	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. JE in progress.
20	23750	31948	RT-001 DF3429-CC REPL PH1	3/17/2014	3/29/2014	$ -	JE in progress.
21	24202	30907	T-300-14, Line L-2, Los Banos	2/11/2014	3/31/2014	$ -	JE in progress.
22	24898	29426	TS-001-13, Line L-105N-3, Oakland	2/24/2014	3/31/2014	$ -	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. JE in progress.
23	23787	30979	TS-015-14, Line GCUST5765, Live Oak	3/3/2014	3/31/2014	$ -	JE in progress.
24	23673	23673	V-060 Valve Auto - N Sac Ugnd Hldr, 3V, Ph. 1	1/21/2014	4/3/2014	$ -	JE in progress.
25	N/A	31693	R-066 L-119B REPL 1.12MI MP 0.59-2.23 PH1	1/29/2014	4/10/2014	$ -	Added new replacement project from filed test project as a result of data validation. JE in progress.
26	23740	31981	RT-032 DREG3759-PN REPL EXPENSE PH1	4/4/2014	4/11/2014	$ -	JE in progress.
27	23728	29124	R-230 L-103 REPL 0.01MI MP 22.20-22.21 PH1	3/12/2014	4/12/2014	$ -	JE in progress.
28	23668	23668	V-066 Valve Auto - Cordelia, 6V, Ph. 1	1/22/2014	4/19/2014	$ -	JE in progress.
29	23471	23471	T-235-13, Line L-131Z, Rio Vista	3/3/2014	4/21/2014	$ -	Delayed from 2013 to 2014 to coordinate with other work in the vicinity. JE in progress.
30	24202	30908	T-301-14, Line L-2, Westley	3/6/2014	4/28/2014	$ -	JE in progress.
31	23665	23665	V-058 Valve Auto - 24th & 20th Ave, 3V, Ph. 1	1/31/2014	4/28/2014	$ -	JE in progress.
32	23828	31369	T-405-14, Line DFM-1209-01, Fowler	3/11/2014	4/29/2014	$ -	JE in progress.
33	23652	23652	V-074 Valve Auto - Union Ave Meter Reg Sta, 1V, Ph. 1	3/15/2014	4/29/2014	$ -	JE in progress.
34	23539	31771	T-215-13, Line L-400, Antioch	3/13/2014	5/1/2014	$ -	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. JE in progress.
35	23973	23973	V-077 Valve Auto - Cummings Creek, 1V, Ph. 1	3/1/2014	5/1/2014	$ -	JE in progress.
36	23974	23974	V-078 Valve Auto - Tompkins Hill, 2V, Ph. 1	3/11/2014	5/5/2014	$ -	JE in progress.
37	23907	29715	T-358-14, Line DFM-6603-01, Ridgecrest	3/4/2014	5/6/2014	$ -	JE in progress.
38	23849	23849	R-201 DFM-0404-11 REPL 0.02MI MP 0.00-0.04 PH1	3/17/2014	5/8/2014	$ -	Delayed from 2013 to 2014 as a result of data validation. JE in progress.
39	23750	31951	RT-004 DREG5148-CC REPL PH1	4/28/2014	5/10/2014	$ -	JE in progress.
40	23731	30881	R-195 L-162A REPL 0.85MI MP 6.62-7.40 PH1	4/2/2014	5/14/2014	$ -	JE in progress.
41	23667	23667	V-067 Valve Auto - Ripon-Modesto, 3V, Ph. 1	2/17/2014	5/16/2014	$ -	JE in progress.
42	23579	23579	T-335-14, Line DFM-1502-11, Marysville	4/18/2014	5/17/2014	$ -	JE in progress.
43	N/A	31293	R-200 L-114 REPL 0.12MI MP 16.75-16.86 PH1	3/13/2014	5/20/2014	$ -	Added as new project as a result of data validation that identified a class location change. JE in progress.
44	23912	30945	T-332A-14, Line DFM-1501-02, Yuba City	4/3/2014	5/20/2014	$ -	JE in progress.
45	23750	31952	RT-005 STUB6203-CC REPL PH1	5/12/2014	5/24/2014	$ -	JE in progress.
46	24072	30898	T-377-14, Line L-134A, Fresno	4/28/2014	5/27/2014	$ -	JE in progress.
47	23884	23884	T-319-14, Line DFM-0621-01, Woodland	4/17/2014	5/28/2014	$ -	JE in progress.

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48	23690	31961	RT-014 DREG4794-FR REPL PH1	5/16/2014	5/30/2014	$ -	JE in progress.
49	24059	32296	T-406-14, Line L-057A, Discovery Bay	4/8/2014	5/30/2014	$ -	Added as new test from filed replacement project. JE in progress.
50	23741	31956	RT-009 STUB8203-DI REPL EXPENSE PH1	5/19/2014	5/31/2014	$ -	JE in progress.
51	23785	32011	RT-060 DF3338-DREG4460-YO REPL PH1	5/13/2014	5/31/2014	$ -	JE in progress.
52	23648	23648	V-076 Valve Auto - Bakersfield Tap, 3V, Ph. 1	4/15/2014	6/2/2014	$ -	JE in progress.
53	23520	30925	T-345B-14, Line L-197B, Woodbridge	4/10/2014	6/4/2014	$ -	JE in progress.
54	24055	31276	R-206 L-021H REPL 0.01MI MP 1.07-1.07 PH1	5/2/2014	6/6/2014	$ -	JE in progress.
55	23912	30946	T-332B-14, Line DFM-1501-02, Yuba City	4/3/2014	6/10/2014	$ -	JE in progress.
56	23796	29633	R-153 L-021C REPL 0.19MI MP 34.84-35.04 PH1	5/20/2014	6/12/2014	$ -	JE in progress.
57	23815	23815	R-010 L-108_2 REPL 0.14MI MP 48.16-48.20 PH1	4/5/2014	6/13/2014	$ -	JE in progress.
58	23895	31054	T-348-14, Line DFM-2408-01, Pleasanton	4/17/2014	6/13/2014	$ -	JE in progress.
59	23741	31957	RT-010 STUB9046-DI REPL EXPENSE PH1	6/2/2014	6/14/2014	$ -	JE in progress.
60	23740	31983	RT-034 DREG4339-PN REPL EXPENSE PH1	6/2/2014	6/14/2014	$ -	JE in progress.
61	23785	32012	RT-061 DREG4420-YO REPL PH1	6/2/2014	6/14/2014	$ -	JE in progress.
62	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.
63	23661	23661	V-056 Valve Auto - Bixler Rd, 3V, Ph. 1	1/21/2014	6/14/2014	$ -	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. All engineering will be completed in 2013. JE in progress.
64	24055	31267	R-199 L-021H REPL 0.06MI MP 6.38-6.42 PH1	5/14/2014	6/17/2014	$ -	JE in progress.
65	23867	31042	R-188 L-220 REPL 0.52MI MP 19.37-19.92 PH1	5/10/2014	6/20/2014	$ -	Delayed from 2013 to 2014 due to permits requiring long lead times. JE in progress.
66	23934	30944	TIM-364-14, Line DFM-1401-01, San Francisco	5/6/2014	6/20/2014	$ -	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.
67	23672	23672	V-064 Valve Auto - East Fairfield Crossover, 4V, Ph. 1	5/5/2014	6/20/2014	$ -	JE in progress.
68	23894	23894	T-322-14, Line DFM-1027-01, Oroville	5/15/2014	6/21/2014	$ -	JE in progress.
69	23669	23669	V-059 Valve Auto - Yolo Causeway Blvd Tie, 2V, Ph. 1	3/26/2014	6/23/2014	$ -	JE in progress.
70	27628	30338	R-187 DFM-1816-15 REPL 0.03MI MP 3.04-3.07 PH1	5/29/2014	6/25/2014	$ -	Added from filed test project due to short length. It is more cost efficient to replace this short length rather than hydrotest. JE in progress.
71	23679	23679	V-062 Valve Auto - Paramount Court, 1V, Ph. 1	4/15/2014	6/26/2014	$ -	JE in progress.
72	23718	31973	RT-025 BD8547-X6342-NB REPL PH1	6/16/2014	6/28/2014	$ -	JE in progress.
73	23740	31982	RT-033 DREG4198-PN REPL EXPENSE PH1	6/16/2014	6/28/2014	$ -	JE in progress.
74	23911	31370	T-368-14, Line DFM-1501-01, Yuba City	5/16/2014	6/30/2014	$ -	JE in progress.
75	23559	23559	T-325-14, Line L-126A, Humboldt Hill	5/20/2014	7/10/2014	$ -	JE in progress.
76	23753	31953	RT-006 DFDS3587-DA REPL PH1	5/15/2014	7/12/2014	$ -	JE in progress.
77	23718	31974	RT-026 DF3223-DREG3870-NB REPL PH1	6/30/2014	7/12/2014	$ -	JE in progress.
78	23928	31984	RT-035 DFDS3613-DREG4482-SA REPL PH1	6/24/2014	7/12/2014	$ -	JE in progress.
79	23744	32003	RT-053 X6335-SO REPL PH1	6/30/2014	7/12/2014	$ -	JE in progress.
80	23644	23644	V-080 Valve Auto - Mojave River Crossing, 2V, Ph. 1	5/28/2014	7/14/2014	$ -	JE in progress.
81	23650	23650	V-075 Valve Auto - Gosford Rd Mtr Sta, 3V, Ph. 1	5/28/2014	7/15/2014	$ -	JE in progress.
82	23646	23646	V-079 Valve Auto - 2AX Pls, 2V, Ph. 1	6/11/2014	7/15/2014	$ -	JE in progress.
83	23785	32019	RT-068 STUB6104-YO REPL PH1	6/24/2014	7/16/2014	$ -	JE in progress.
84	23724	25719	R-067 L-109_2B REPL 0.18MI MP 2.82-10.15 PH1	4/24/2014	7/18/2014	$ -	Delayed from 2013 to 2014 due to permitting and planning constraints. JE in progress.
85	23575	23575	T-075-12, Line DFM-0611-01, Sacramento	5/30/2014	7/18/2014	$ -	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.
86	23794	31964	RT-016 DCUST9089-HB REPL PH1	5/16/2014	7/23/2014	$ -	JE in progress.
87	23794	31965	RT-017 DREG3841-HB REPL PH1	5/16/2014	7/23/2014	$ -	JE in progress.
88	23929	25886	T-094-12, Line DFM-1816-01, Monterey	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.
89	23929	25888	T-095-12, Line DFM-1816-01, Capitola	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.
90	23783	23783	R-177 DFM-1509-01 REPL 0.27MI MP 0.05-0.33 PH1	5/23/2014	7/26/2014	$ -	JE in progress.
91	23718	31975	RT-027 DFDS3544-DREG3876-NB REPL PH1	7/14/2014	7/26/2014	$ -	JE in progress.
92	23928	31985	RT-036 DREG4050-SA REPL PH1	7/14/2014	7/26/2014	$ -	JE in progress.

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Line #	PSEP Filing PSRS	New PSRS	Project Description	Mobilization Date	Tie-in Date	Job Estimate Amount	Comments
93	23535	30909	T-379-14, Line L-021H, San Rafael	6/10/2014	7/29/2014	$ -	Delayed from 2012 to 2014 to coordinate work with a potential rebuild of the Regulator Station at Miller Creek Road. JE in progress.
94	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 on the line so this portion has been split to a separate project and the other portion reported as complete. JE in progress.
95	23785	32016	RT-065 DREG4454-YO REPL PH1	7/17/2014	7/31/2014	$ -	JE in progress.
96	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.
97	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.
98	23786	27752	R-104 DFM-0405-01 REPL 0.50MI MP 3.03-3.30 PH1	5/8/2014	8/5/2014	$ -	Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress.
99	N/A	31336	R-197 DFM-6605-01 REPL 0.05MI MP 0.00-0.05 PH1	7/8/2014	8/5/2014	$ -	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 hydrotest. JE in progress.
100	N/A	31366	R-204 L-301C REPL 0.01MI MP 17.25-17.26 PH1	6/26/2014	8/5/2014	$ -	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 hydrotest. JE in progress.
101	23633	23633	V-042 Valve Auto - Vargas Crossover 2V, Ph. 1	6/13/2014	8/5/2014	$ -	Delayed from 2013 to 2014 for constructability reasons and due to scheduling and workload balancing. JE in progress.
102	23785	32018	RT-067 STUB6102-YO REPL PH1	8/1/2014	8/6/2014	$ -	JE in progress.
103	23561	23561	T-326-14, Line L-126B, Humboldt Hill	6/16/2014	8/7/2014	$ -	JE in progress.
104	23874	25847	T-016-12, Line L-131_2, Fremont	6/17/2014	8/8/2014	$ -	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.
105	23928	31986	RT-037 DREG4095-SA REPL PH1	7/28/2014	8/9/2014	$ -	JE in progress.
106	23744	32002	RT-052 DREG3803-DREG3808-SO REPL PH1	7/28/2014	8/9/2014	$ -	JE in progress.
107	N/A	30948	T-022A-12, Line L-191-1, Lafayette	6/24/2014	8/12/2014	$ -	JE in progress.
108	23822	28468	R-059 L-123 REPL 4.01MI MP 0.00-9.74 PH1	2/27/2014	8/13/2014	$ -	Accelerated from 2014 to 2013 to accommodate a required Integrity Management assessment. JE in progress.
109	24196	31161	R-194 DFM-0611-05 REPL 0.07MI MP 0.00-0.12 PH1 <<T-076B-12>>	6/24/2014	8/13/2014	$ -	JE in progress.
110	23577	26124	T-076B-12, Line DFM-0611-02, Sacramento	6/24/2014	8/13/2014	$ -	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.
111	24196	25856	T-077-12, Line DFM-0611-05, Sacramento	6/24/2014	8/13/2014	$ -	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.
112	23706	32005	RT-054 DCUST1739-ST REPL PH1	8/1/2014	8/16/2014	$ -	JE in progress.
113	23659	23659	V-055C Valve Auto - Lakes Valve Lot, 1V, Ph. 1	6/30/2014	8/16/2014	$ -	Delayed from 2013 to 2014 due to efforts related to combining work for scheduling and cost efficiency reasons. JE in progress.
114	24079	26053	R-057 L-124A REPL 4.71MI MP 20.63-26.27 PH1	5/30/2014	8/19/2014	$ -	Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress.
115	23704	30361	R-165 L-109_3AA REPL 0.27MI MP 17.01-17.11 PH1	7/1/2014	8/21/2014	$ -	JE in progress.
116	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.
117	23514	23514	T-343-14, Line L-191A, Lafayette	7/8/2014	8/26/2014	$ -	JE in progress.
118	23717	23717	R-171 DFM-1209-05 REPL 0.03MI MP 4.99-5.02 PH1	7/31/2014	8/27/2014	$ -	JE in progress.
119	24901	24901	R-203 L-118-1 REPL 0.02MI MP 0.01-0.03 PH1	8/1/2014	8/28/2014	$ -	Delayed from 2013 to 2014 due to schedule and workload balancing. JE in progress.
120	23574	25814	T-002-12, Line DFM-0401-01, San Rafael	7/11/2014	8/28/2014	$ -	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.
121	23574	25817	T-003-12, Line DFM-0401-01, San Rafael	7/11/2014	8/28/2014	$ -	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.
122	23706	32006	RT-055 DREG4921-ST REPL PH1	8/18/2014	8/30/2014	$ -	JE in progress.
123	23785	32020	RT-069 STUB6183-YO REPL PH1	8/8/2014	8/30/2014	$ -	JE in progress.
124	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.
125	23636	23636	V-046 Valve Auto - Dalton Crossover, 2V, Ph. 1	5/3/2014	9/11/2014	$ -	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.

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126	23928	31987	RT-038 DREG4327-SA REPL PH1	9/2/2014	9/13/2014	$ -	JE in progress.
127	23706	32007	RT-056 BD428-ST REPL PH1	9/2/2014	9/13/2014	$ -	JE in progress.
128	23785	32013	RT-062 DREG4446-YO REPL PH1	9/2/2014	9/15/2014	$ -	JE in progress.
129	23670	23670	V-065 Valve Auto - Fairfield Crossover 4V, Ph. 1	6/7/2014	9/16/2014	$ -	JE in progress.
130	23704	31059	T-400-14, Line L-109, Woodside	8/6/2014	9/17/2014	$ -	Added as a new test from a filed replacement project for constructability reasons. JE in progress.
131	TBD	TBD	T-407-14, Line DFM-0206-01, Woodside	8/6/2014	9/17/2014	$ -	
132	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.
133	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.
134	23599	23599	V-012 Valve Auto - Lomita Park, 1V, Ph. 1	5/14/2014	9/23/2014	$ -	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 that the CEQA process for the environmental/species issues took. JE in progress.
135	23972	23972	V-044 Valve Auto - Sheridan Rd, 2V, Ph. 1	7/7/2014	9/25/2014	$ -	Delayed from 2013 to 2014 due to the presence of CA Tiger Salamander. JE in progress.
136	23928	31988	RT-039 STUB8028-SA REPL PH1	9/15/2014	9/27/2014	$ -	JE in progress.
137	23706	32008	RT-057 DREG4892-ST REPL PH1	9/15/2014	9/27/2014	$ -	JE in progress.
138	23489	27619	T-236-13, Line L-137B, Eureka	8/1/2014	9/29/2014	$ -	Delayed from 2013 to 2014 due to permits requiring long lead times related to an environmentally sensitive area. JE in progress.
139	23590	25832	T-010-12, Line DFM-0407-01, Napa	8/12/2014	9/30/2014	$ -	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.
140	23540	23540	T-313-14, Line L-050A, Oroville	9/2/2014	9/30/2014	$ -	JE in progress.
141	24052	29743	R-158 L-021D REPL 0.62MI MP 18.65-19.27 PH1	8/16/2014	10/2/2014	$ -	Delayed from 2013 to 2014 due to permits requiring long lead times and land acquisition challenges. JE in progress.
142	24052	26049	R-060 L-021D REPL 2.65MI MP 19.27-24.49 PH1	8/11/2014	10/3/2014	$ -	Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress.
143	23796	29631	R-205 L-021C REPL 0.55MI MP 31.85-32.39 PH1	8/8/2014	10/4/2014	$ -	JE in progress.
144	23702	27951	R-061 L-196A REPL 2.00MI MP 11.58-13.45 PH1	6/17/2014	10/7/2014	$ -	Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress.
145	23704	27018	R-052 L-109_3C REPL 0.78 MI MP 23.30-24.00 PH1	6/10/2014	10/11/2014	$ -	JE in progress.
146	23688	26048	R-103 L-114_2 REPL 2.17MI MP 10.50-12.68 PH1	4/8/2014	10/11/2014	$ 17,728,647.84	Delayed from 2012 to 2014 due to permits requiring long lead times.
147	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.
148	23632	23632	V-041 Valve Auto - Foley's Ranch Crossover, 6V, Ph. 1	6/7/2014	10/20/2014	$ -	Delayed from 2013 to 2014 to coordinate work with the station rebuild at Foley's Ranch. JE in progress.
149	23883	23883	T-341-14, Line DFM-1869-01, Salinas	9/22/2014	10/24/2014	$ -	JE in progress.
150	23692	26025	R-048 L-109_4C REPL 1.26MI MP 30.52-31.76 PH1	6/21/2014	10/25/2014	$ -	JE in progress.
151	23704	26516	R-031 L-109_3B_1 REPL 1.29MI MP 18.61-19.71 PH1	4/19/2014	11/3/2014	$ -	JE in progress.
152	24219	30927	T-350-14, Line L-300B, Hinkley	9/17/2014	11/4/2014	$ -	JE in progress.
153	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.
154	24219	30928	T-351-14, Line L-300B, Boron	10/10/2014	11/24/2014	$ -	JE in progress.
155	24900	24900	R-016 L-108_3 REPL 2.55MI MP 63.49-65.96 PH1	8/6/2014	11/25/2014	$ -	Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress.
156	23736	31368	T-404-14, Line DFM-0107-01, Oakland	10/15/2014	11/25/2014	$ -	JE in progress.
157	23822	30616	R-167 L-123 REPL 1.73MI MP 4.35-13.74 PH1	8/26/2014	11/26/2014	$ -	JE in progress.
158	23704	30589	R-166 L-109_3B_2 REPL 1.64MI MP 20.38-22.20 PH1	4/23/2014	11/29/2014	$ -	JE in progress.
159	23728	31033	R-190 L-103 REPL 0.17MI MP 9.71-9.86 PH1	10/1/2014	12/9/2014	$ -	JE in progress.
160	24059	26057	R-055 L-057A REPL 1.58MI MP 8.83-10.44 PH1	8/19/2014	12/12/2014	$ -	Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress.
161	24077	30790	R-189 L-108_1B REPL 0.05MI MP 38.17-38.22 PH1	8/18/2014	12/13/2014	$ -	Added new project as a result of data validation. JE in progress.
162	23692	30667	R-185 L-109_4A_2 REPL 1.62MI MP 28.60-30.11 PH1	11/13/2014	4/10/2015	$ -	Delayed from 2014 to 2015 due to environmental/species concerns around San Mateo Creek and related long lead permitting required. JE in progress.
163	24027	24027	I-060 L-101(S) MP 0.00-11.62 ILI & Analysis PH1	TBD	TBD	$ -	JE in progress.
164	24028	24028	I-061 L-101 MP 11.62-33.68 ILI & Analysis PH1	TBD	TBD	$ -	JE in progress.
165	24026	24026	I-062 L-132 MP 31.7-38.4 ILI & Analysis PH-1	TBD	TBD	$ -	JE in progress.
166	24010	24010	I-063 L-131 MP 50.5-57.4 ILI & Analysis PH-1	TBD	TBD	$ -	JE in progress.
167	24024	24024	I-064 L-300A MP 299.00-352 ILI & Analysis PH-1	TBD	TBD	$ -	JE in progress.
168	24018	24018	I-065 L-300B MP 299-351.8 ILI & Analysis PH-1	TBD	TBD	$ -	JE in progress.
169	23728	18025	R-008 L-108 REPL 1.92MI MP 38.17-40.27 (Non-PSEP)	TBD	TBD	$ -	JE in progress.
170	24077	18579	R-009 L-108 REPL 3.05MI MP 40.27-43.46 (Non-PSEP)	TBD	TBD	$ -	JE in progress.
171	23727	26010	R-058 L-021F REPL 2.16MI MP 0.00-2.15	TBD	TBD	$ -	JE in progress.
172	23728	23788	R-068 L-103 REPL 0.17MI MP 9.71-9.88	TBD	TBD	$ -	JE in progress.

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173	23470	28494	R-143 DFM-7222-01 REPL 0.62MI MP 0.00-0.61	TBD	TBD	$ -	JE in progress.
174	23728	28164	R-146 L-103 REPL 1.29MI MP 17.99-22.21	TBD	TBD	$ -	JE in progress.
175	24553	29067	R-149 L-153 REPL 0.12MI MP 3.45-3.58	TBD	TBD	$ -	JE in progress.
176	23750	31949	RT-002 DF3441-CC REPL PH1 [Postponed]	TBD	TBD	$ -	JE in progress.
177	23750	31950	RT-003 DFDS3572-CC REPL PH1	TBD	TBD	$ -	JE in progress.
178	23690	31958	RT-011 BD8772-FR REPL PH1	TBD	TBD	$ -	JE in progress.
179	23690	31959	RT-012 DF6856-FR REPL PH1	TBD	TBD	$ -	JE in progress.
180	23690	31963	RT-015 STUB7093-FR REPL PH1	TBD	TBD	$ -	JE in progress.
181	23928	31990	RT-041 X6405-SA REPL PH1	TBD	TBD	$ -	JE in progress.
182	23928	31991	RT-042 X6921-SA REPL PH1	TBD	TBD	$ -	JE in progress.
183	23689	31995	RT-049 DF3475-SJ REPL PH1	TBD	TBD	$ -	JE in progress.
184	23706	32009	RT-058 STUB9112-ST REPL PH1	TBD	TBD	$ -	JE in progress.
185	23785	32010	RT-059 BD453-YO REPL PH1	TBD	TBD	$ -	JE in progress.
186	23785	32014	RT-063 DREG4449-YO REPL PH1	TBD	TBD	$ -	JE in progress.
187	23785	32021	RT-070 STUB6314-YO REPL PH1	TBD	TBD	$ -	JE in progress.
188	23657	23657	V-054B Valve Auto - Brentwood Terminal, 8V, Ph. 1	TBD	TBD	$ -	Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress.
189	23657	23657	V-054C Valve Auto - Brentwood Terminal, 8V, Ph. 1	TBD	TBD	$ -	Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress.
190	23657	23657	V-054D Valve Auto - Brentwood Terminal, 8V, Ph. 1	TBD	TBD	$ -	Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress.
191	23657	23657	V-054E Valve Auto - Brentwood Terminal, 8V, Ph. 1	TBD	TBD	$ -	Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress.
192	23657	23657	V-054F Valve Auto - Brentwood Terminal, 8V, Ph. 1	TBD	TBD	$ -	Delayed from 2013 to 2014 due to scheduling and workload balancing. JE in progress.
193	23740	31980	RT-031 DF3216-PN REPL EXPENSE PH1	8/25/2014	8/30/2014	$ -	JE in progress.
194	24254	31367	R-042 SP-3 REPL 0.01MI MP 174.29-174.29 (HWY4) PH1	9/25/2014	11/5/2014	$ -	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.

TABLE 19-1
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Line #	New PSRS	Project Description	Region	Risk	Description	Cost Impact ($)	Schedule Impact (Days)	>10% Variance	Comments
1	25861	T-023-12, Line L-191-1, Martinez	Bay	Clearance	Additional work or resources may be required to adequately support customer loads during clearance and to meet potentially tight clearance windows.	$70,000	1	Yes	CNG (Compressed Natural Gas) resources were not available when needed so a schedule delay was experienced.
2	25861	T-023-12, Line L-191-1, Martinez	Bay	Changes After IFB (Issue For Bid)	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.).	$33,000	N/A	Yes	PG&E agreed to re-rock a trail through Briones Park that was used for ingress and egress during construction in order to appease the Parks and Recreation Department.
3	25861	T-023-12, Line L-191-1, Martinez	Bay	Field Conditions Differ from Expected Conditions	As-built drawings and/or GIS may not match what is encountered in the field.	$13,000	N/A	Yes	Additional fitting work and welding was necessary related to a change in engineering design.
4	28411	T-211B-13, Line L-187, Chualar	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.	$66,000	N/A	No	A third party line strike was encountered which will now require additional excavation so that GE can do a pit survey on the pipe and check for corrosion. This resulted in additional costs to this project.
5	28411	T-211B-13, Line L-187, Chualar	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.).	$200,000	N/A	No	The test length was extended to do a nitrogen test inside the Harkins Rd Reg Station in order to facilitate work scheduled to be done in 2014. Testing was a mitigation effort because otherwise the pipe would have needed replacement in 2014 which is more expensive. This was a mitigation effort for 2014.
6	27617	T-230-13, Line L-118B, Madera	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.	$60,000	N/A	No	Pipe with laminations (imperfections in pipe wall material) were encountered so it was necessary to replace a section of pipe.
7	27617	T-230-13, Line L-118B, Madera	Ctr Vly	Pigging	Potential issues may occur while pigging the line that cause delays or cost increases to resolve them.	$50,000	2	No	The PIGs (Pipeline Inspection Gauges) became stuck delaying the project while they were freed.
8	27617	T-230-13, Line L-118B, Madera	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.	$500,000	36	No	Clearance crews and CNG resource availability has caused delays to this project as a result of other test schedules slipping.
9	27617	T-230-13, Line L-118B, Madera	Ctr Vly	Contaminated or Dirty Test Water (other than Hg)	Any variety of contaminants could be found in the water and require additional costs to sample, clean, etc.	$500,000	N/A	No	Sludge was left over in the Baker tanks after the hydrotest due to the time it took to analyze a sample. PSC was called to properly clean the Baker tanks and additional costs were also incurred for rental of the tanks and labor while cleaning was conducted.
10	27611	T-225A-13, Line DFM-0604-07, Vacaville T-225B-13, Line DFM-0604-07, Vacaville	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.	$600,000	18	No	The test was split into 2 clearances and 2 tests due to limited CNG resource availability.
11	27611	T-225A-13, Line DFM-0604-07, Vacaville T-225B-13, Line DFM-0604-07, Vacaville	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	2	No	Wood was encountered in the portion of the line for test A which was causing pigs to become stuck. This resulted in a delay and cost increase to resolve.
12	27611	T-225A-13, Line DFM-0604-07, Vacaville T-225B-13, Line DFM-0604-07, Vacaville	North	Mercury Cleaning - Strength Test	Cleaning Hg from piping associated prior to strength testing. This includes the requirement to meet drinking water standards of rinse water prior to hydrostatically testing.	$40,000	2	No	On the B portion of the test, high levels of mercury were encountered resulting in a delay and cost increases for additional cleaning because other portions of the line had not required cleaning so it had not been identified as needed here.
13	27611	T-225A-13, Line DFM-0604-07, Vacaville T-225B-13, Line DFM-0604-07, Vacaville	North	Support for Other Work Teams	Unplanned support (equipment or labor) was provided to other teams such as GC, CNG, or LNG because they did not have sufficient resources available at the time that they were needed.	$80,000	N/A	No	Extended support was supplied to T & R for the clearances and tie-ins since they were above the contracted 10 hour day.
14	27611	T-225A-13, Line DFM-0604-07, Vacaville T-225B-13, Line DFM-0604-07, Vacaville	North	Field Conditions Differ from Expected Conditions	As-built drawings and/or GIS may not match what is encountered in the field.	$60,000	N/A	No	There was difficulty in locating PCFs (Pressure Control Fittings) resulting in cost impacts, but no schedule delays.
15	23567	T-318A-14, Line DFM-0604-06, Vacaville T-318B-14, Line DFM-0604-06, Vacaville	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.	Mitigated	Mitigated	No	Some non-PG&E unknown/un-marked utilities were encountered during excavation requiring some re-engineering to work around. NOTE: Float was built into the schedule which avoided an impact and the re-engineering was done very efficiently avoiding further impacts.
16	23567	T-318A-14, Line DFM-0604-06, Vacaville T-318B-14, Line DFM-0604-06, Vacaville	North	Field Conditions Differ from Expected Conditions	As-built drawings and/or GIS may not match what is encountered in the field.	N/A	N/A	No	Several PCFs were not where the drawings indicated they should be so costs were incurred for additional excavations and a schedule delay was experienced.
17	23567	T-318A-14, Line DFM-0604-06, Vacaville T-318B-14, Line DFM-0604-06, Vacaville	North	Support for Other Work Teams	Unplanned support (equipment or labor) was provided to other teams such as GC, CNG, or LNG because they did not have sufficient resources available at the time that they were needed.	N/A	N/A	No	The contractor provided support in the form of labor to the T & R group during clearance.
18	29707	T-355-14, Line L-300B, Kern	Ctr Vly	Errors and Omissions	Impacts resulting from contractor or sub-contractor negligence or oversight related to the work, product or property.	$50,000	N/A	No	An insufficient number of baker tanks were rented so it was necessary to rent additional tanks.

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19	27760	T-285-13, Line X6526, Kettleman City	Ctr Vly	Hydrostatic Test Rupture/Leak	Potential rupture or leak during a hydrostatic test results in increased cost.	$50,000	12	No	A rupture was experienced so a 40 ft section of pipe was replaced resulting in cost increases and a schedule delay. NOTE: Despite this issue, the project was under budget.
20	31511	T-288A-13, Line L-300B, Bear Valley Springs T-288B-13, Line L-300B, Bear Valley Springs	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.).	$50,000	N/A	No	A change was made in the test execution plan to decrease the length of the schedule so it was necessary to rent additional baker tanks to support this change.
21	31511	T-288A-13, Line L-300B, Bear Valley Springs T-288B-13, Line L-300B, Bear Valley Springs	Ctr Vly	Errors and Omissions	Impacts resulting from contractor or sub-contractor negligence or oversight related to the work, product or property.	$15,000	N/A	No	The discharge rate was slower than anticipated so rental costs for the baker tanks were increased.
22	25820	T-051D-12, Line L-142N, Bakersfield T-051E-12, Line L-142N, Bakersfield	Ctr Vly	Customer Support	Additional measures may be necessary to appease customer complaints related to construction activities such as noise reduction, additional restoration, etc. and sometimes customer compensation.	$80,000	N/A	Yes	In order to avoid the need for excessively large amounts of CNG/LNG, compression was used to back-feed the line from a different transmission system and the valve for the GET busses was installed as planned in the mitigation.
23	25820	T-051D-12, Line L-142N, Bakersfield T-051E-12, Line L-142N, Bakersfield	Ctr Vly	Land Acquisition	Difficulty acquiring land due to a variety of complications (e.g. resistant land owners) that could result in schedule delays or increased cost (e.g. purchase land via eminent domain).	See T-051A/B/C-12	See T-051A/B/C-12	Yes	A delay was experienced in acquiring land from the City of Bakersfield and Kern County to install new valves. The impact of this delay was captured in the risk register for tests A, B and C.
24	25820	T-051D-12, Line L-142N, Bakersfield T-051E-12, Line L-142N, Bakersfield	Ctr Vly	Hydrostatic Test Rupture/Leak	Potential rupture or leak during a hydrostatic test results in increased cost.	$330,000	6	Yes	A rupture was experienced during testing so an approximately 60 feet portion of pipe was replaced and the line retested successfully.
25	25820	T-051D-12, Line L-142N, Bakersfield T-051E-12, Line L-142N, Bakersfield	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.).	$18,000	N/A	Yes	The pipe at location M was not per design plan so changes were required resulting in additional costs.
26	30056	T-282A-13, Line L-172A, West Sacramento T-282B-13, Line L-172A, West Sacramento	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.	$100,000	N/A	No	Concrete and rock debris were encountered in the excavation. Two sack cement was also encountered requiring hand excavation.
27	30056	T-282A-13, Line L-172A, West Sacramento T-282B-13, Line L-172A, West Sacramento	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.).	$125,000	N/A	No	Post IFB requests from engineering were received to remove additional pipe and replace a valve.
28	30056	T-282A-13, Line L-172A, West Sacramento T-282B-13, Line L-172A, West Sacramento	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.	$250,000	N/A	No	Additional Base work was combined with the hydrotest work to reduce clearance requirements.
29	30056	T-282A-13, Line L-172A, West Sacramento T-282B-13, Line L-172A, West Sacramento	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.	$300,000	6	No	The IFC plans did not accurately depict the excavation required for clearance. In addition, several valves required for clearance were leaking, requiring additional excavation, re-write of the clearance procedure and tripling contractor and T&R resources required for clearance.
30	30056	T-282A-13, Line L-172A, West Sacramento T-282B-13, Line L-172A, West Sacramento	North	Dewatering	A high water table is encountered resulting in unplanned dewatering costs and delays in construction.	$200,000	N/A	No	Ground water was encountered, requiring de-watering
31	25891	T-039A-12, Line DFM-1615-01, Modesto	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.).	$45,000	N/A	No	It was necessary to relocate AT&T and Modesto Irrigation Power Plant existing utility poles. Work was completed on time, but at some additional costs.
32	25891	T-039A-12, Line DFM-1615-01, Modesto	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.	$237,300	36	No	This project could not begin until after a replacement project (R-003), test T-038-12 and a cross tie installation completed in order to ensure sufficient support for the Modesto Irrigation District. Delays were experienced on R-003 and T-038-12 thus delaying this project and resulting in cost increases.
33	28495	T-281B-13, Line L-191, Antioch	Bay	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.	No cost impact	N/A	No	A biohazard (medical needles) was encountered during excavation at locations A and C which will require additional work to safely remove, increasing project costs. PSC was contacted to handle the removal.
34	28495	T-281B-13, Line L-191, Antioch	Bay	Resource Availability	The availability of labor and materials necessary to execute the work may result in schedule and/or cost impacts.	$40,000	N/A	No	The project was planned with the assumption that the PG&E owned Baker tanks would be available, but they were not when needed so tanks were rented instead resulting in cost increases.
35	28495	T-281B-13, Line L-191, Antioch	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.	$55,000	N/A	No	When excavating a wedding band (a band around the pipe) was encountered and it was determined that it was necessary to remove it resulting in cost increases.

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36	28495	T-281B-13, Line L-191, Antioch	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.	$1,785	N/A	No	A 6" ball valve was found to be broken, requiring replacement which resulted in cost increases.
37	28495	T-281B-13, Line L-191, Antioch	Bay	Safety and Security	Additional measures may be necessary to ensure the safety of personnel and the public around the job site.	$23,240	N/A	No	An armed guard service was hired after a homeless man attempted to jump in the bell hole and a drive-by shooting occurred down the street.
38	28495	T-281B-13, Line L-191, Antioch	Bay	Clearance	Additional work or resources may be required to adequately support customer loads during clearance and to meet potentially tight clearance windows.	$22,340	N/A	No	Additional clearance support in the form of equipment and overtime hours were required to meet the clearance window.
39	25833	TIM-065-12, Line L-021C, Penngrove	North	Permitting	Unplanned permitting conditions, requirements and delays from various permitting agencies (e.g. limited working hours, limited access, delays in issuance, etc.).	$124,700	12	No	The city of Petaluma's request of night work resulted in cost increases, but did not impact the schedule. We were limited because of other work already approved in the area.
40	25833	TIM-065-12, Line L-021C, Penngrove	North	Environmental/Species Impacts	Potential delays in construction due to the presence of protected or endangered species at the construction site.	$4,860	N/A	No	It was necessary to relocate an isolation cap due to its proximity to a Red-Legged Frog known habitat.
41	25833	TIM-065-12, Line L-021C, Penngrove	North	Land Acquisition	Difficulty acquiring land due to a variety of complications (e.g. resistant land owners) that could result in schedule delays or increased cost (e.g. purchase land via eminent domain).	$12,330	N/A	No	The city of Petaluma requested that we not stock pile soil from the excavation due to limited space on East Washington Street so it was necessary to off-haul the soil instead.
42	25833	TIM-065-12, Line L-021C, Penngrove	North	Resource Availability	The availability of labor and materials necessary to execute the work may result in schedule and/or cost impacts.	$61,800	N/A	No	The project was planned with the assumption that the PG&E owned Baker tanks would be available, but they were not when needed so tanks were rented instead resulting in cost increases.
43	25833	TIM-065-12, Line L-021C, Penngrove	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.	$27,602	N/A	No	It was necessary to install a bypass to support the regulator station Old Redwood Highway during clearance because CNG would not be able to sufficiently support the load and the load had increased due to colder weather.
44	25833	TIM-065-12, Line L-021C, Penngrove	North	Errors and Omissions	Impacts resulting from contractor or sub-contractor negligence or oversight related to the work, product or property.	$61,850	N/A	No	During pigging the valves on the bridle set at a MLV were left open so the pig became stuck just before the MLV. Another pig was pushed through which identified that there was a pressure difference that was catching the pig. The valves on the bridle set were then closed and pigging was completed. This resulted in cost increases related to the delay and because this was during a weekend.
45	25833	TIM-065-12, Line L-021C, Penngrove	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.	$1,940	N/A	No	A blow down flange was found to be damaged, requiring replacement.
46	31386	T-331B-14, Line DFM-1501-01, Yuba City	North	Field Conditions Differ from Expected Conditions	As-built drawings and/or GIS may not match what is encountered in the field.	$100,000	N/A	Yes	An additional TAP was identified as necessary.
47	31386	T-331B-14, Line DFM-1501-01, Yuba City	North	Clearance	Additional work or resources may be required to adequately support customer loads during clearance and to meet potentially tight clearance windows.	$800,000	64	Yes	A delay was experienced as a result of tight clearance windows. Adjusting of the schedule was necessary in order to find a suitable clearance window.
48	31372	T-337-14, Line DFM-1603-03, Manteca	Ctr Vly	Hydrostatic Test Rupture/Leak	Potential rupture or leak during a hydrostatic test results in increased cost.	$15,000	1	No	A direct leak was detected during the leak check test resulting in cost impacts to repair the section of pipe and a minor delay. Despite this issue, this project should be within budget. It was a small nitrogen test constructed by GC so the initial estimate appears to have been higher than necessary.
49	27651	T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock	Ctr Vly	Land Acquisition	Difficulty acquiring land due to a variety of complications (e.g. resistant land owners) that could result in schedule delays or increased cost (e.g. purchase land via eminent domain).	$500	N/A	Yes	Since a private landowner did not agree to grant access, it was necessary to install the valve lot in the sidewalk requiring street closure which resulted in additional traffic control costs.
50	27651	T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock	Ctr Vly	Customer Support	Additional measures may be necessary to appease customer complaints related to construction activities such as noise reduction, additional restoration, etc. and sometimes customer compensation.	$200,000	N/A	Yes	The test was split in order to reduce the need to support a DREG. Only a minor cost impact was incurred mitigating a potentially large impact.
51	27651	T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock	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.).	$30,000	N/A	Yes	Due to unknown pipe depth it was not determined whether one of the test heads could be below or above ground. It was necessary to have the test head above ground which required additional traffic control.
52	27651	T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock	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	5	Yes	A schedule delay and related costs were experienced while waiting on the results of soil sampling due to issues at the lab.

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53	27651	T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock	Ctr Vly	Hydrostatic Test Rupture/Leak	Potential rupture or leak during a hydrostatic test results in increased cost.	$300,000	7	Yes	The pipe was found to be leaking during leak check resulting in additional costs to locate and replace. Praxair tracer gas was used to locate the leak. Also one site was excavated per the engineer's request, but the leak was not found there. The tracer gas revealed the leak location. Corrosion was found at the leak site and all corroded pipe replaced.
54	27651	T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock	Ctr Vly	Hydrostatic Test Rupture/Leak	Potential rupture or leak during a hydrostatic test results in increased cost.	$350,000	9	Yes	A second leak in the line was found 9 days after the first while ramping to spike pressure. Praxair tracer gas was again used successfully to locate the leak. Corrosion was found at the leak site and all corroded pipe replaced.
55	27651	T-272A-13, Line DFM-7223-01, Turlock T-272B-13, Line DFM-7223-01, Turlock	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.	$110,000	4	Yes	An engineering investigation conducted during the second leak resulted in a decision to replace 30 ft of pipe.
56	31108	T-303B-14, Line L-186, Dos Palos	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.	$84,000	N/A	Yes	A cotton field was used for staging which had the potential to increase project costs. LNG piping was installed which avoided interference with the cotton field land owner's business mitigating a potentially greater cost impact.
57	31108	T-303B-14, Line L-186, Dos Palos	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.	$480,600	18	Yes	An in vista inspection using an ultrasonic tool was conducted of the line in T-303B-14 and T-304-14 which identified numerous anomalies (laminations, dents, etc.) which will delay both projects while these anomalies are addressed and result in significant cost increases.
58	31108	T-303B-14, Line L-186, Dos Palos	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.).	$350,000	12	Yes	After initial planning, this project was selected as a pilot project to test a new inspection tool called In Vista inspection by Quest. As a result, additional labor and material costs were incurred.
59	31108	T-303B-14, Line L-186, Dos Palos	Ctr Vly	Safety and Security	Additional measures may be necessary to ensure the safety of personnel and the public around the job site.	$52,000	N/A	Yes	K rails were required in order to protect the CNG/LNG equipment.
60	30531	T-284-13, Line DFM-1815-02, Monterey	Ctr Cst	Field Conditions Differ from Expected Conditions	As-built drawings and/or GIS may not match what is encountered in the field.	$26,759	N/A	No	A PCF was encountered that was not identified on the drawings requiring additional work.
61	25790	R-069 L-050A TRANSFER 5.09MI MP 2.55-7.60 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.	N/A	12	No	Two out of the five clearances were each delayed a week due to delays on other projects or emergent work.
62	25790	R-069 L-050A TRANSFER 5.09MI MP 2.55-7.60 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.).	N/A	12	No	One HPR was not mapped so additional time was required to plan then do the transfer once it was located. This HPR was part of the Gas Distribution portion of work therefore any cost impacts were covered by that budget.
63	31295	R-122 DFM-1306-01 REPL 0.01MI MP 1.48-1.48 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.	$4,000	1	No	A non-PG&E unknown corrugated pipe that was abandoned was encountered so the pipe was removed.
64	31295	R-122 DFM-1306-01 REPL 0.01MI MP 1.48-1.48 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.	N/A	6	No	This is a GC constructed job and the crew had an emergency project come up that pulled them away from this one resulting in a delay.
65	27890	R-132 DFM-7222-01 REPL 10.23MI MP 0.99-11.16 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.).	$350,000	N/A	No	An agreement was made to pay the City of Hughson ($1/squ. ft.) to repave the road after the project completes. As site restoration was set to begin, the city requested that all 5 lanes of the road be repaved instead of just one. Negotiations are still underway as of 5-Dec-13. The cost reflects an estimate of a potential negotiated outcome.
66	27890	R-132 DFM-7222-01 REPL 10.23MI MP 0.99-11.16 PH1	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.	$17,000	2	No	One 4" valve was delivered and found to be defective when tested so another had to be acquired and tested. Costs were incurred to test twice.

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67	27890	R-132 DFM-7222-01 REPL 10.23MI MP 0.99-11.16 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.).	$1,100,000	N/A	No	Despite extensive early outreach with Stanislaus County to receive buy-in on the traffic control plan (full road closures with detours) they later changed their mind about the traffic control plan, requiring that one lane of traffic remain open during construction. Also, in lieu of trench cut fees, the county required overlay of half of the road where trenches were located. After further negotiations, an agreement was reached that PG&E will pay the county to pave their detour roads prior to construction start allowing for full road closures.
68	27890	R-132 DFM-7222-01 REPL 10.23MI MP 0.99-11.16 PH1	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.	$500,000	N/A	No	Potholing identified 117 unmarked/unknown utilities so redesign was necessary. Construction methods were changed to shallow HDDs which helped mitigate cost (down from estimated $2 million) and schedule impacts (down from estimated 4 wks).
69	27890	R-132 DFM-7222-01 REPL 10.23MI MP 0.99-11.16 PH1	Ctr Vly	Safety and Security	Additional measures may be necessary to ensure the safety of personnel and the public around the job site.	$500,000	N/A	No	Additional traffic control has been necessary to ensure public safety to make it clear that the road is closed, including during non-working hours impacting project costs.
70	27890	R-132 DFM-7222-01 REPL 10.23MI MP 0.99-11.16 PH1	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.	$250,000	6	No	It was necessary to select a new tie-in location on the west side of Whitmore Ave due to conflicts with other existing utilities.
71	26006	R-011 L-118A REPL 8.11MI MP 5.62-12.55 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.).	$200,000	12	No	Significant issues were experienced with the city of Fresno regarding horizontal/vertical separation requirements which caused delays particularly as a result of the inability to acquire a particular easement. During construction the city identified an intersection where work was taking place as not covered by the original encroachment permit. Plans were to cut, but the city preferred a bore. As a compromise for cutting, additional restoration measures were made.
72	26006	R-011 L-118A REPL 8.11MI MP 5.62-12.55 PH1	Ctr Vly	Land Acquisition	Difficulty acquiring land due to a variety of complications (e.g. resistant land owners) that could result in schedule delays or increased cost (e.g. purchase land via eminent domain).	$50,000	24	No	Land was acquired at higher costs than anticipated at a specific property where a valve lot was planned was not acquired so it was necessary to relocate 4000 ft of pipe that would have been on private property, but now will be in franchise.
73	26006	R-011 L-118A REPL 8.11MI MP 5.62-12.55 PH1	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.).	$67,000	6	No	Station engineering conducted a more in depth review of station drawings and identified additional materials needed which added to project costs and took time to acquire.
74	26006	R-011 L-118A REPL 8.11MI MP 5.62-12.55 PH1	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.).	$500,000	18	No	It was necessary to move the line into franchise so re-design was required, increasing project costs.
75	26006	R-011 L-118A REPL 8.11MI MP 5.62-12.55 PH1	Ctr Vly	Poor Soil	Poor soil conditions may result in the need for off haul of unsuitable soil and import of suitable soil.	$711,000	12	No	Unsuitable bedding sand material resulted in cost increases to haul it off and acquire import sand from the quarry.
76	26006	R-011 L-118A REPL 8.11MI MP 5.62-12.55 PH1	Ctr Vly	Unstable/Weak Soil	Unstable soils may require additional shoring or other measures which may cause delays and increase in costs to implement.	$2,600,000	30	No	Significant impacts were realized due to sugar sands and hard pans soils on the last 10,000 ft of work, increasing project costs and slowing production rates. Soil samples were taken to gain a better understanding of the conditions prior to construction start so plans could be made accordingly. A tackifier was applied, but without success. Boring was also explored, but the sand was not dense enough and if it were then it would have been possible to dig through.
77	27979	R-134 L-114_2 REPL 3.59MI MP 12.68-16.54 PH1	Bay	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.	$50,000	1	No	Additional rock was purchased due to a rain event.
78	27979	R-134 L-114_2 REPL 3.59MI MP 12.68-16.54 PH1	Bay	Unstable/Weak Soil	Unstable soils may require additional shoring or other measures which may cause delays and increase in costs to implement.	$150,000	6	No	Peat gravel was encountered while digging, resulting in increased costs to handle.
79	27979	R-134 L-114_2 REPL 3.59MI MP 12.68-16.54 PH1	Bay	Mercury Cleaning - Pipe Replacement	Cleaning Hg from piping associated with asset retirement.	$400,000	N/A	No	Cleaning costs were higher than anticipated.
80	27979	R-134 L-114_2 REPL 3.59MI MP 12.68-16.54 PH1	Bay	Quality	If work is found to be below standards, time may be lost and costs incurred to resolve the situation.	N/A	96	No	NDE Contractor Inspection method requires rework. Re-inspection was necessary due to inspection not to code. NOTE: The cost impact of $4,800,000 was captured in a separate expense account.

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81	27979	R-134 L-114_2 REPL 3.59MI MP 12.68-16.54 PH1	Bay	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.	$50,000	N/A	No	Due to other delays, the slurry seal will be conducted in 2014 so that it can be warrantied during better weather.
82	23769	R-105 DFM-1815-02 REPL 0.45MI MP 18.76-19.24 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.	$35,000	3	Yes	Old city duct banks and pavement (i.e. city infrastructure) were encountered requiring additional work to work around.
83	23769	R-105 DFM-1815-02 REPL 0.45MI MP 18.76-19.24 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.	$60,000	4	Yes	Due to sequenced work, a hydrotest required completion before this project could begin. Since a delay was experienced on the test project, a delay was experienced on this one also.
84	23631	V-040 Valve Auto - Walnut Ave, 1V, Ph. 1	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.).	$85,000	12	No	It was necessary to remove 4 major Redwood trees because the roots were intruding on the gas lines which resulted in increased project costs.
85	23631	V-040 Valve Auto - Walnut Ave, 1V, Ph. 1	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.).	$50,000	N/A	No	The fencing around the station required replacement from metal to wood due to potential overhead transmission fault current issues.
86	23651	V-052 Valve Auto - 51St Avenue, 1V, Ph. 1	Bay	Safety and Security	Additional measures may be necessary to ensure the safety of personnel and the public around the job site.	$20,000	N/A	No	A satellite site was acquired with a security guard present; however, the satellite site was only used for a week so a PG&E service center was used which costs were incurred to move to.
87	23655	V-053 Valve Auto - 4th & Jefferson, 1V, Ph. 1	Bay	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.	$50,000	24	No	Redesign of the valve grade box from subsurface to above ground was necessary because a BART communication bank was encountered which BART did not notify us of. This eliminated the need to potentially relocate a fence as previously planned.
88	23655	V-053 Valve Auto - 4th & Jefferson, 1V, Ph. 1	Bay	Safety and Security	Additional measures may be necessary to ensure the safety of personnel and the public around the job site.	$20,000	N/A	No	There was 24 hour security on the site at additional cost due to issues experienced on previous projects in the area.
89	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	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.	$3,680	1	No	A miscommunication resulted in potholing being done in the incorrect location so it had to be re-done.
90	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	Ctr Cst	Clearance	Additional work or resources may be required to adequately support customer loads during clearance and to meet potentially tight clearance windows.	$6,200	2	No	The parameters of the clearance grew so the blow down time was longer than originally anticipated resulting in additional construction crew labor costs.
91	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	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.	$39,000	3	No	The 30" pipe delivered to the Edgewood site was X-65, not X-60 like the Bill of Materials had specified. This error had not been identified until after two (2) each 30" welds had been completed using the incorrect welding procedure. These welds had to be subsequently cut out and the joints re-beveled. New weld procedures had to be generated, uploaded, and brought to the welders before any additional welding could commence. Requesting evaluation on PCO for time spent on prep work, welding the X-65 pipe, the regroup time and the cutout of (2) each 30" welds.
92	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	Ctr Cst	Support for Other Work Teams	Unplanned support (equipment or labor) was provided to other teams such as GC, CNG, or LNG because they did not have sufficient resources available at the time that they were needed.	$44,000	N/A	No	Support in the form of personnel (monitors) was provided to air movers during clearance.
93	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	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.	$7,755	2	No	Other projects (Base) in the vicinity were using this site as a blow down location so welding could not occur while those lines were blown down delaying this project and resulting in related cost increases.
94	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	Ctr Cst	Errors and Omissions	Impacts resulting from contractor or sub-contractor negligence or oversight related to the work, product or property.	$54,000	10	No	Aspects of the design were identified as requiring additonal update.
95	23602	V-015 Valve Auto - Edgewood, 6V, 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.).	$17,000	N/A	No	Design changes were made to the fence design after construction commenced. Retaining wall attachments were changed and the maintenance access gates were revised.

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96	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	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.	$264,000	N/A	No	Due to delays caused by other issues, the contractor is also being reimbursed for overhead costs.
97	28282	V-031B Valve Auto Delta Fair, 1V, Ph. 1	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.).	$20,000	N/A	Yes	Design was done with plans to reuse a building currently on site for control equipment; however, asbestos was found in the building so an alternate plan was devised.
98	28282	V-031B Valve Auto Delta Fair, 1V, Ph. 1	Bay	Clearance	Additional work or resources may be required to adequately support customer loads during clearance and to meet potentially tight clearance windows.	$100,000	N/A	Yes	Taking the clearance on the SP-5 line was expected to be challenging due to issues experienced on other projects. Also a minimum inventory verification was completed which delayed clearance. In addition, due to scheduling conflicts with other work, that was higher priority, this project experienced delays.
99	28282	V-031B Valve Auto Delta Fair, 1V, Ph. 1	Bay	Field Conditions Differ from Expected Conditions	As-built drawings and/or GIS may not match what is encountered in the field.	$100,000	36	Yes	Pipe depth and other location specifications were not as expected resulting in costs to adjust the design/work.
100	30014	V-030 Valve Auto - Antioch Terminal, 5V, Ph. 1	Bay	Quality	If work is found to be below standards, time may be lost and costs incurred to resolve the situation.	$120,000	36	Yes	Delays were experienced related to the quality of engineering. The quality issues could not be resolved so a new contractor was selected.
101	30014	V-030 Valve Auto - Antioch Terminal, 5V, Ph. 1	Bay	Clearance	Additional work or resources may be required to adequately support customer loads during clearance and to meet potentially tight clearance windows.	$40,000	24	Yes	Due to a delay on an earlier consecutive replacement project on L-114, this project was delayed in taking clearance because L-303 could not be out at the same time as L-114.
102	30014	V-030 Valve Auto - Antioch Terminal, 5V, Ph. 1	Bay	Field Conditions Differ from Expected Conditions	As-built drawings and/or GIS may not match what is encountered in the field.	$70,000	N/A	Yes	Conditions were different than expected, resulting in additional work.
103	30014	V-030 Valve Auto - Antioch Terminal, 5V, Ph. 1	Bay	Clearance	Additional work or resources may be required to adequately support customer loads during clearance and to meet potentially tight clearance windows.	$150,000	N/A	Yes	Clearance delays and poor planning impacted the project cost and schedule. Due to the delays in taking clearance, CNG and additional sniff hole locations were required because of the colder weather. This was not identified as a possibility.
104	30014	V-030 Valve Auto - Antioch Terminal, 5V, Ph. 1	Bay	Clearance	Additional work or resources may be required to adequately support customer loads during clearance and to meet potentially tight clearance windows.	$50,000	12	Yes	V-201 and V-9.03 were not commissioned as scheduled with the rest of the scope due to clearance conflicts with other projects.
105	23635	V-045 Valve Auto - East Airway, 3V, Ph. 1	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	64	No	It was necessary to complete R-23 on L-131 and Livermore and Airway Station Rebuild (Base) projects prior to this project. As a result of delays on those projects, this project was delayed also.
106	27532	V-031A Valve Auto - California, 1V, Ph. 1	Bay	Permitting	Unplanned permitting conditions, requirements and delays from various permitting agencies (e.g. limited working hours, limited access, delays in issuance, etc.).	N/A	6	No	A delay was experienced waiting for the Caltrans permit despite early and continued communication.
107	27532	V-031A Valve Auto - California, 1V, Ph. 1	Bay	Field Conditions Differ from Expected Conditions	As-built drawings and/or GIS may not match what is encountered in the field.	$35,000	N/A	No	A PCF stopple was not where the as-builts identified it to be so the design had to be adjusted resulting in a cost increase.
108	27532	V-031A Valve Auto - California, 1V, Ph. 1	Bay	Field Conditions Differ from Expected Conditions	As-built drawings and/or GIS may not match what is encountered in the field.	$65,000	N/A	No	
109	27594	R-007 L-108_1A REPL 2.19MI MP 37.14-38.17 PH1	Ctr Vly	Land Acquisition	Difficulty acquiring land due to a variety of complications (e.g. resistant land owners) that could result in schedule delays or increased cost (e.g. purchase land via eminent domain).	$927,000	36	No	One landowner required that we remove the retired line in order to grant us access to his land. This requires additional permitting, etc. and will result in more cost increases and delays in site restoration. This delay will also result in additional repaving costs because the San Joaquin County does not consider any paving completed between Nov-April as permanent so we will repave after that time frame. Additional costs may still be incurred related to the removal of the retired line and repaving.
110	23682	R-148 DFM-1617-01 REPL 0.85MI MP 0.82-1.26 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.).	$40,000	18	No	The city of Tracy required removal of the retired line in order to grant the permit which requires an additional trench because replace in place was not feasible. This resulted and cost increases and a delay while negotiating with the city and exploring mitigation options such as replace in place. Nine days were required for redesign and additional construction time each.
111	23682	R-148 DFM-1617-01 REPL 0.85MI MP 0.82-1.26 PH1	Ctr Vly	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.	$30,000	2	No	As a result of the permitting delay, the project was scheduled to tie-in in December. A delay and associated costs were incurred due to cold weather which resulted in an increased customer load and would have required significantly more CNG. Accepting the delay was more reasonable and cost effective.

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112	24025	I-006 L-132 MP 31.96-38.39 UPGRADE 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.).	N/A	72	Yes	Significant delays were experienced in acquiring permits from the SFPUC on this and other projects.
113	24025	I-006 L-132 MP 31.96-38.39 UPGRADE 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.).	$100,000	66	Yes	The necessity to apply for an additional permit with Caltrans was identified and since Caltrans permits cannot be expedited a delay was experienced and additional clearance required.
114	23603	V-016 Valve Auto - Crystal Springs, 4V, 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.).	N/A	4	No	It was necessary to install facilities outside of the permitted area due to design changes after the permitting process began so an additional application was submitted to the SFPUC which has been historically long lead at issuing permits. Commissioning was delayed one month waiting for the SFPUC approval of the updated permit.
115	23603	V-016 Valve Auto - Crystal Springs, 4V, Ph. 1	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.	$137,800	1	No	Approximately 18" of additional cut was necessary resulting in increased project costs.
116	23603	V-016 Valve Auto - Crystal Springs, 4V, 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.	$40,000	1	No	Removal and replacement of coating on 2 lines feeding into the station was required resulting in cost increases.
117	23603	V-016 Valve Auto - Crystal Springs, 4V, 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.).	$10,000	N/A	No	Studs were replaced and bleed valves were increased from 3/4" to 2" on the launcher/receiver because they were not accepted by the local district that would be operating them.
118	23603	V-016 Valve Auto - Crystal Springs, 4V, 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.	$7,300	N/A	No	There was an existing culvert at the entrance to the valve lot which had collapsed so it was necessary to replace for grading purposes.
119	23603	V-016 Valve Auto - Crystal Springs, 4V, Ph. 1	Ctr Cst	Clearance	Additional work or resources may be required to adequately support customer loads during clearance and to meet potentially tight clearance windows.	$62,000	N/A	No	Additional labor was required for spotting because of operating restrictions on L-101 and L-109 due to L-147 shut down.
120	23603	V-016 Valve Auto - Crystal Springs, 4V, Ph. 1	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.	$20,000	1	No	Delays were experienced in getting telecommunications work completed and tower positioning due to labor availability. This issue will be explored further at the program level to avoid occurrences in the future.
121	23675	V-061 Valve Auto - Sac Gas Load Center, 4V, 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.	$50,000	N/A	No	Three existing valves were found to be leaking during commissioning so additional work will be required post commissioning. The cost recorded here is an estimate and could vary when the work completes. The current plan is to repair the valves, but if any require replacement the cost could be $200,000-$1,700,000.
122	31109	T-304-14, Line L-186, Dos Palos	Ctr Vly	Permitting	Unplanned permitting conditions, requirements and delays from various permitting agencies (e.g. limited working hours, limited access, delays in issuance, etc.).	N/A	2	No	Despite early application, a delay was experienced in receiving a permit.
123	31109	T-304-14, Line L-186, Dos Palos	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.	$1,058,000	18	No	As a result of the pilot use of the In Vista inspection tool, various pipe anomalies (laminations, dents, etc.) were identified, requiring repair which resulted in cost increases and a schedule delay. Identification of these anomalies using this tool was a mitigation effort to avoid leaks and/or a rupture during hydrotest and ensures greater safety of the line.
124	31109	T-304-14, Line L-186, Dos Palos	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.).	$438,497	12	No	After initial planning, this project was selected as a pilot project to test a new inspection tool called In Vista inspection by Quest. As a result, additional labor and material costs were incurred.
125	31109	T-304-14, Line L-186, Dos Palos	Ctr Vly	Safety and Security	Additional measures may be necessary to ensure the safety of personnel and the public around the job site.	$12,466	N/A	No	It was identified that K rails should be installed in order to protect the CNG/LNG equipment.
126	24017	I-003 L-300B MP 299-351.8 UPGRADE PH-1	Ctr Vly	Permitting	Unplanned permitting conditions, requirements and delays from various permitting agencies (e.g. limited working hours, limited access, delays in issuance, etc.).	$200,000	24	No	The Air District delayed the start of construction due to time taken to review and approve the permit. Dust control requirements required numerous (6) water trucks and covering of soil piles which resulted in cost increases.
127	24017	I-003 L-300B MP 299-351.8 UPGRADE PH-1	Ctr Vly	Environmental/Species Impacts	Potential delays in construction due to the presence of protected or endangered species at the construction site.	$30,000	24	No	A survey identified as necessary for the Blunt Nosed Leopard Lizard delayed the start of construction for clearance 4. Additional delay was then experienced because the Department of Fish and Wildlife observed burrowing holes of the Blunt Nose Leopard Lizard so exclusion fencing need to be installed with a mitigation plan submitted to the department.

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128	24017	I-003 L-300B MP 299-351.8 UPGRADE PH-1	Ctr Vly	Changes After IFB	Any changes to the project scope that were excluded from or occurred after IFB (e.g. design changes, expanded excavation, added replacement/test length, etc.).	$35,000	24	No	A design change of the concrete thrust blocks for the blow-offs and the concrete supports that included rebar to be larger and more detailed was necessary.
129	24017	I-003 L-300B MP 299-351.8 UPGRADE PH-1	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	5	No	A hydrotest on the cross-tie between L-300A and L-300B experienced a rupture which caused delays on this project.
130	24017	I-003 L-300B MP 299-351.8 UPGRADE PH-1	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.	$20,000		No	A newly installed valve failed during hydrotest so the manufacturer was called to help evaluate and repair the valve. The hydrotest was then re-done resulting in additional costs to the project.
131	30220	TS-003-13 TS-003-13, Line GCUST5814, Palo Alto	Ctr Cst	Changes After IFB	Any changes to the project scope that were excluded from or occurred after IFB (e.g. design changes, expanded excavation, added replacement/test length, etc.).	$8,000			It was determined to be necessary to cut off a TAP, resulting in additional work.
132	30220	TS-003-13 TS-003-13, Line GCUST5814, Palo Alto	Ctr Cst	Low Estimate	Specific cost assumptions in the Job Estimate proved to be inaccurate.	$4,500			
133	23662	V-069 Valve Auto - Airport & French Camp, 3V, Ph. 1	Ctr Vly	Opportunity: Bundling of Work	Bundling of work with other projects may result in cost savings.	($100,000)	N/A	No	This project was combined with 5 other PG&E projects in the area during construction, allowing for a 40% cost savings on this project.
134	27594	R-007 L-108_1A REPL 2.19MI MP 37.14-38.17 PH1	Ctr Vly	Opportunity: Alternate Construction Methods	Use of alternate construction methods may result in cost and/or time savings.	($1,500,000)	N/A	No	Construction methods were altered in order to eliminate crop loss thus reducing project costs related to paying the land owners for their lost crops.
135	30531	T-284-13, Line DFM-1815-02, Monterey	Ctr Cst	Opportunity: 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 length, etc.).	($15,000)	N/A	No	One sniff hole that was planned did not need to be dug because it was included in the adjacent replacement project instead so a deductive change order.

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All values in millions of dollars

	Actual Costs																Authorized[2]					Shareholder Funded[4]														
PSEP Expense	2011	2012	2013	2013 JAN	2013 FEB	2013 MAR	2013 APR	2013 MAY	2013 JUN	2013 JULY	2013 AUG	2013 SEP	2013 OCT	2013 NOV	2013 DEC	PSEP Costs to Date	2011-2014 PSEP Authorized	2011 Authorized	2012 Authorized	2013 Authorized	2014 Authorized	ITD Shareholder Funded	2011	2012	2013	2013 JAN	2013 FEB	2013 MAR	2013 APR	2013 MAY	2013 JUN	2013 JULY	2013 AUG	2013 SEP	2013 OCT	2013 NOV	2013 DEC
Pipeline Modernization																																				
Pipe Replacement	0.00	0.00	0.13	0.00	0.01	(0.01)	0.01	0.00	0.00	0.00	0.00	0.00	0.04	(0.00)	0.08	0.13																				
In Line Inspection	0.00	0.00	2.40	0.04	0.04	0.14	0.46	(0.02)	0.43	0.05	0.25	0.43	0.28	0.21	0.10	2.40																				
[1] Strength Test																																				
[3] Pre-1955 Installation			125.09	0.60	3.15	1.68	6.90	9.05	10.73	10.80	8.80	27.85	20.64	14.26	10.62																						
[3] Post-1955 Installation			33.92	1.43	0.93	1.70	0.83	5.25	6.57	7.50	8.70	(7.63)	4.43	(1.84)	6.04																						
Strength Test Total	228.17	130.70	159.01	2.04	4.08	3.39	7.73	14.31	17.29	18.30	17.50	20.22	25.07	12.42	16.67	517.88																				
Eng Cond / Fatigue Analysis	0.00	0.00	0.32	0.01	0.01	0.04	0.05	0.03	(0.03)	0.01	0.02	0.01	0.10	0.04	0.05	0.32																				
Pipeline Modernization Total	228.17	130.70	161.86	2.08	4.13	3.56	8.24	14.32	17.69	18.36	17.77	20.66	25.48	12.67	16.89	520.74	149.53	0.00	2.35	65.93	81.25	452.49	228.17	128.35	95.96	1.47	1.01	1.81	0.91	6.52	5.36	12.87	12.27	15.17	19.99	7.18	11.40
Pipeline Records Integration																																				
MAOP	90.46	120.25	29.31	4.56	5.52	10.30	2.70	4.93	(0.21)	(1.07)	4.38	(1.85)	0.71	(0.68)	0.03	240.02																				
Mariner	1.16	3.80	1.41	0.38	0.47	0.79	1.71	(0.64)	(1.62)	(0.36)	0.49	0.08	(0.07)	0.13	0.06	6.37																				
Pipeline Records Integration Total	91.62	124.05	30.72	4.94	5.98	11.09	4.41	4.29	(1.83)	(1.43)	4.86	(1.77)	0.64	(0.55)	0.09	246.39	0.00	0.00	0.00	0.00	0.00	246.39	91.62	124.05	30.72	4.94	5.98	11.09	4.41	4.29	(1.83)	(1.43)	4.86	(1.77)	0.64	(0.55)	0.09
Valve Automation	0.01	0.50	1.85	0.07	0.27	0.22	0.11	0.19	0.08	0.27	0.09	0.14	0.14	0.07	0.20	2.36	6.73	0.00	0.08	3.01	3.64	0.43	0.01	0.42	0.00	0.02	0.13	0.08	(0.20)	(0.05)	0.03	0.00	0.00	(0.00)	0.00	0.00	0.00
Interim Safety Measures	0.00	2.40	2.29	(0.03)	0.05	0.49	0.31	(0.03)	(0.01)	0.42	0.34	0.04	0.32	0.03	0.37	4.69	2.09	0.00	0.03	1.04	1.02	3.55	0.00	2.37	1.19	(0.12)	(0.04)	0.40	0.22	(0.12)	(0.10)	0.33	0.25	(0.06)	0.22	(0.06)	0.28
PMO	5.05	6.50	3.47	0.22	0.14	(0.02)	0.31	0.27	0.34	1.03	0.96	(0.84)	0.69	(0.27)	0.65	15.01	6.73	0.00	0.11	3.34	3.28	11.60	5.05	6.39	0.17	0.16	(0.13)	(0.25)	0.21	0.08	(0.01)	0.30	0.68	(0.96)	0.27	(0.24)	0.07
Other	6.83	6.25	5.21	0.33	0.36	0.71	0.32	(1.37)	0.10	2.00	(0.52)	1.42	0.43	3.85	(2.41)	18.30	0.00	0.00	0.00	0.00	0.00	18.30	6.83	6.25	5.21	0.33	0.36	0.71	0.32	(1.37)	0.10	2.00	(0.52)	1.42	0.43	3.85	(2.41)
Total PSEP Expense	**331.68**	**270.40**	**205.41**	**7.61**	**10.94**	**16.05**	**13.70**	**17.67**	**16.37**	**20.65**	**23.49**	**19.64**	**27.69**	**15.80**	**15.79**	**807.49**	**165.08**	**0.00**	**2.58**	**73.31**	**89.19**	**732.77**	**331.68**	**267.82**	**133.26**	**6.80**	**7.31**	**13.83**	**5.85**	**9.36**	**3.55**	**14.07**	**17.55**	**13.80**	**21.54**	**10.17**	**9.43**
PSEP Capital																																				
Pipeline Modernization																																				
[1] Pipeline Replacement																																				
Pipeline Replacement less *Post-1955 Strength Test*																																				
[3] Cost	11.89	226.28	310.06	15.51	11.54	16.31	21.42	34.14	25.26	26.74	34.73	42.77	39.20	24.96	17.49	548.23																				
[3] Post-1955 Strength Test Cost	0.00	2.07	2.20	2.50	0.00	0.00	(0.50)	0.30	2.70	0.24	0.37	(4.06)	0.11	0.47	0.07	4.27																				
Pipeline Replacement Total	11.89	228.36	312.26	18.01	11.54	16.31	20.92	34.44	27.96	26.98	35.10	38.72	39.30	25.43	17.56	552.50																				
Strength Test Related	5.86	12.30	28.79	1.01	0.71	0.13	(1.27)	4.88	3.22	6.54	5.16	5.69	2.34	0.89	(0.50)	46.95																				
In Line Inspection Retrofitting	0.62	16.00	36.78	1.99	3.86	5.51	2.22	2.72	2.30	3.45	2.39	2.55	3.07	2.92	3.79	53.40																				
Pipeline Modernization Total	18.37	256.66	377.83	21.01	16.10	21.95	21.86	42.05	33.48	36.97	42.66	46.95	44.71	29.24	20.85	652.85	852.48	30.49	214.93	290.11	316.95	4.27	0.00	2.07	2.20	2.50	0.00	0.00	(0.50)	0.30	2.70	0.24	0.37	(4.06)	0.11	0.47	0.07
Pipeline Records Integration																																				
MAOP	1.67	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.95																				
Mariner	4.87	29.30	37.11	2.30	1.22	3.72	0.62	3.72	4.13	5.41	4.54	3.28	4.08	0.91	3.20	71.28																				
Pipeline Records Integration Total	6.54	29.58	37.11	2.30	1.22	3.72	0.62	3.72	4.13	5.41	4.54	3.28	4.08	0.91	3.20	73.23	0.00	0.00	0.00	0.00	0.00	73.23	6.54	29.58	37.11	2.30	1.22	3.72	0.62	3.72	4.13	5.41	4.54	3.28	4.08	0.91	3.20
[1] Valve Automation	12.98	29.51	51.89	1.29	2.76	3.05	3.59	5.25	5.72	6.20	8.68	9.04	7.87	(4.45)	2.90	94.38	129.04	13.69	38.93	51.66	24.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interim Safety Measures	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PMO	2.27	2.10	8.82	0.60	0.41	0.95	0.77	0.96	0.80	0.00	0.77	1.30	0.23	0.63	1.40	13.18	22.29	3.05	6.51	6.41	6.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	2.96	0.04	0.84	0.65	0.79	0.07	0.12	(0.00)	0.51	(0.05)	(0.70)	(0.59)	0.59	(2.18)	3.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	2.96	0.04	0.84	0.65	0.79	0.07	0.12	(0.00)	0.51	(0.05)	(0.70)	(0.59)	0.59	(2.18)
Total PSEP Capital	**40.16**	**320.81**	**475.69**	**26.05**	**21.15**	**30.45**	**26.90**	**52.09**	**44.12**	**49.08**	**56.60**	**59.88**	**56.29**	**26.92**	**26.16**	**836.65**	**1003.81**	**47.22**	**260.37**	**348.19**	**348.03**	**80.50**	**6.54**	**34.61**	**39.35**	**5.64**	**1.88**	**4.50**	**0.19**	**4.14**	**6.82**	**6.15**	**4.86**	**(1.48)**	**3.59**	**1.98**	**1.08**

[1] StanPac included in Actual and Forecasted Costs and Authorized Recovery.
[2] Authorized Amount from D-12.12.030.
[3] Pre/Post 1955 spend has been updated based on MAOP Validation.
[4] Shareholder Funded Portion does not tie to SEC Financials as our financial statements have been updated to reflect revenue numbers consistent with the Update Application.
[5] Inception-to-Date (ITD) amounts include reallocation of prior period amounts consistent with PSEP scope decisions and cost allocation.

TABLE 22-1
PACIFIC GAS AND ELECTRIC COMPANY
PROJECT STATUS SUMMARY - PROJECTS COMPLETED
JANUARY 1, 2013 – DECEMBER 31, 2013

Line #	PSEP Filing PSRS	New PSRS	Project Description	Miles Completed	Line	MP1	MP2	City	HCA	Class Code	Clearance Date	Tie-in Date
1	24909	24909	R-043 SP4Z RETIRE 0.42MI MP 8.18-8.43 PH1	0.42	SP4Z	8.18	8.43	Oakley	Yes	3,SPLIT	12-Apr-13	24-Apr-13
2	26442	26442	R-100 L-131 RETIRE 0.58MI MP 8.56-8.93 PH1	0.58	L-131	8.56	8.93	Oakley	Yes	3	29-Mar-13	24-Apr-13
3	25791	25791	R-114 L-114 RETIRE 0.70MI MP 8.18-8.91 PH1	0.70	L-114	8.18	8.91	Oakley	Yes	2	12-Apr-13	24-Apr-13
4	23862	23862	R-071 DFM-1502-08 REPL 0.25MI MP 0.01-0.52 PH1	0.52	DFM-1502-08	0.01	0.52	Yuba	No	2,Split	21-Dec-12	3-Jan-13
5	26045	26045	R-018 L-114_2 REPL 1.89MI MP 9.04-10.50 PH1	1.72	L-114_2	9.04	10.50	Oakley	Yes	3	12-Jan-13	12-Jan-13
6	23807	23807	R-041 DFM-1020-01 REPL 2.47MI MP 0.00-2.69 PH1	2.69	DFM-1020-01	0.00	2.69	Butte	No	2,3,SPLIT	14-Jan-13	14-Jan-13
7	26029	26029	R-006 L-111A REPL 9.78MI MP 20.32-27.57 PH1	8.80	L-111A	20.32	27.57	Fresno	Yes	1,2,3,Split	17-Dec-12	28-Feb-13
8	24903	24903	R-139 L-131Y REPL 0.01MI MP 0.53-0.54 PH1	0.01	L-131Y	0.53	0.54	Brannan Isld Park	No	3	10-May-13	10-May-13
9	27712	27712	R-131 L-119B-1 REPL 0.03MI MP 0.00-0.03 PH1	0.03	L-119B-1	0.00	0.03	Sacramento	Yes	3,SPLIT	14-May-13	14-Jun-13
10	25727	25727	R-022 L-109_2A REPL 3.50MI MP 13.65-16.93 PH1	3.50	L-109_2A	13.65	16.93	Palo Alto/Stanford	Yes	3	16-Dec-12	19-Jun-13
11	23762	23762	R-038 DFM-1813-02 REPL 0.01MI MP 1.00-1.06 PH1	0.01	DFM-1813-02	1.00	1.06	Salinas	Yes	3	9-Jul-13	9-Jul-13
12	31029	31029	R-102 L-162A REPL 0.35MI MP 7.40-7.72 PH1	0.35	L-162A	7.40	7.72	Tracy	No	3	15-Jul-13	15-Jul-13
13	27960	27960	R-133 L-167 REPL 4.75MI MP 29.77-34.53 PH1	4.75	L-167	29.77	34.53	Yuba City	Yes	1,2,3,SPLIT	24-Jul-13	24-Jul-13
14	31696	31696	R-137 L-173 REPL 0.02MI MP 5.50-5.51 PH1	0.02	L-173	5.50	5.51	Rocklin	No	3	18-Jul-13	29-Jul-13
15	26014	26014	R-003 DFM-7221-10 REPL 4.65MI MP 12.07-16.13 PH1	4.65	DFM-7221-10	12.07	16.13	Modesto	Yes	3	12-Aug-13	12-Aug-13
16	26033	26033	R-005 L-138 REPL 7.29MI MP 38.36-45.08 PH1	6.82	L-138	38.36	45.08	Fresno	Yes	2,3,Split	21-Nov-12	12-Aug-13
17	24889	24889	R-124 DFM-1306-06 REPL 0.01MI MP 0.00-0.01 PH1	0.01	DFM-1306-06	0.00	0.01	Sonoma	No	3	16-Aug-13	16-Aug-13
18	23694	23694	R-023 L-131_1 REPL 1.49MI MP 32.37-33.77 PH1	1.49	L-131_1	32.37	33.77	Livermore	Yes	3	24-Aug-13	24-Aug-13
19	26843	26843	R-051 L-210A REPL 1.27MI MP 24.14-25.41 PH1	1.27	L-210A	24.14	25.41	Napa	Yes	1,3,SPLIT	28-Aug-13	27-Aug-13
20	28091	28091	R-140 L-118A Transfer 6.15MI MP 0.00-5.62 PH1	6.15	L-118A	0.00	5.86	Fresno	Yes	2,3,SPLIT	5-Oct-13	5-Oct-13
21	24895	24895	R-110 DFM-3008-01 REPL 0.05MI MP 7.99-8.02 PH1	0.05	DFM-3008-01	7.99	8.02	Walnut Creek	No	3	5-Jul-13	11-Oct-13
22	31295	31295	R-122 DFM-1306-01 REPL 0.01MI MP 1.48-1.48 PH1	0.00	DFM-1306-01	1.48	1.48	Sonoma	No	3	11-Oct-13	11-Oct-13
23	27979	27979	R-134 L-114_2 REPL 3.59MI MP 12.68-16.54 PH1	3.59	L-114_2	12.68	16.54	Brentwood	Yes	3	16-Oct-13	19-Oct-13
24	23769	23769	R-105 DFM-1815-02 REPL 0.45MI MP 18.76-19.24 PH1	0.45	DFM-1815-02	18.76	19.24	Monterey	Yes	3	23-Sep-13	31-Oct-13
25	25790	25790	R-069 L-050A Transfer 5.09MI MP 2.55-7.60 PH1	5.09	L-050A	2.55	7.60	Yuba City	Yes	2,3	5-Sep-13	1-Nov-13
26	27890	27890	R-132 DFM-7222-01 REPL 10.23MI MP 0.99-11.16 PH1	10.23	DFM-7222-01	0.99	11.16	Turlock	Yes	3,SPLITS	12-Nov-13	16-Nov-13
27	26006	26006	R-011 L-118A REPL 8.11MI MP 5.62-12.55 PH1	7.10	L-118A	5.62	12.55	Fresno	Yes	2,3,SPLIT	23-Nov-13	23-Nov-13
28	27594	27594	R-007 L-108_1A REPL 2.19MI MP 37.14-38.17 PH1	2.19	L-108_1A	37.14	38.17	Stockton	Yes	1,2,3	20-Dec-13	20-Dec-13
29	23682	23682	R-148 DFM-1617-01 REPL 0.85MI MP 0.82-1.26 PH1	0.85	DFM-1617-01	0.82	1.26	Tracy	Yes	3,SPLIT	20-Dec-13	20-Dec-13
30	23366	23366	R-029 L-109 REPL 0.71MI MP 9.27-9.87 Spread 6A	0.59	L-109	9.27	9.87	Mountain View	Yes	3	18-Dec-12	20-Dec-13

TABLE 23-1
PACIFIC GAS AND ELECTRIC COMPANY
PROJECT STATUS SUMMARY - PROJECTS COMPLETED
JANUARY 1, 2013 – DECEMBER 31, 2013

Line #	PSEP Filing PSRS	New PSRS	Project Description	Miles Completed	Line	MP1	MP2	City	HCA	Class Code	Clearance Date	Tie-in Date
1	23905	25904	T-101-12, Line DFM-3010-01, Antioch	0.61	DFM-3010-01	0.64	1.27	Antioch	Yes	3	1-Feb-13	4-Feb-13
2	24183	25897	TIM-042-12, Line L-057A-MD1, McDonald Island	0.61	L-057A-MD1	0.0043	0.616	McDonald Island	Yes	1,3	25-Jan-13	15-Feb-13
3	24183	25896	TIM-043-12, Line L-057A-MD1, McDonald Island	0.16	L-057A-MD1	0.97	1.13	McDonald Island	Yes	1	25-Jan-13	15-Feb-13
4	N/A	28473	T-038B-11, Line L-132, Daly City	0.02	L-132	46.59	46.6059	Daly City	Yes	3	23-Feb-13	25-Feb-13
5	23876	27613	T-226-13, Line DFM-0817-01, San Jose	0.46	DFM-0817-01	0	0.4687	San Jose	Yes	3	22-Mar-13	4-Apr-13
6	23554	25866	T-082-12, Line L-119B, Sacramento	1.35	L-119B	8.8900	10.1500	Sacramento	Yes	3	14-Apr-13	27-Apr-13
7	23874	25841	T-015-12, Line L-131_2, Oakley	0.13	L-131_2	8.45	8.58	Oakley	Yes	3	28-Mar-13	1-May-13
8	24216	25884	T-093-12, Line L-210C, Vallejo	0.41	L-210C	31.27	31.68	Vallejo	Yes	3	19-Apr-13	4-May-13
9	23560	23560	T-310-14, Line DFM-0141-01, Crockett	0.43	DFM-0141-01	0	0.43	Crockett	No	3	17-May-13	19-May-13
10	23524	28395	T-206-13, Line L-187, King City	10.24	L-187	22.82	33.04	King City	No	1,3	29-Apr-13	20-May-13
11	23510	25902	T-046-12, Line L-138, Fresno	2.46	L-138	35.91	38.38	Fresno	Yes	1,2,3	3-May-13	24-May-13
12	23532	27604	T-218-13, Line L-021B, Napa	2.68	L-021B	0.01	2.31	Napa	Yes	1,2,3	13-May-13	8-Jun-13
13	23478	27652	TIM-273-13, Line DFM-7226-01, Modesto	4.59	DFM-7226-01	0	4.59	Modesto	Yes	3	15-May-13	8-Jun-13
14	23483	23483	T-360-14, Line DFM-7226-13, Modesto	0.25	DFM-7226-13	0	0.25	Modesto	No	3	15-May-13	8-Jun-13
15	23524	28407	T-207-13, Line L-187, Greenfield	7.98	L-187	33.04	41.08	Greenfield	Yes	1,2,3	24-May-13	13-Jun-13
16	23565	27609	T-224A-13, Line DFM-0604-01, Vacaville	0.79	DFM-0604-01	3.926	4.711	Vacaville	Yes	3	6-Jun-13	21-Jun-13
17	23550	27615	T-229A-13, Line L-118B, Madera	0.26	L-118B	8.46	8.72	Madera	Yes	3	14-Jun-13	21-Jun-13
18	23524	28408	T-208A-13, Line L-187, Soledad	1.60	L-187	41.08	42.64	Soledad	Yes	2,3	21-Jun-13	28-Jun-13
19	23550	27615	T-229C-13, Line L-118B, Madera	2.06	L-118B	8.46	8.72	Madera	Yes	3	14-Jun-13	8-Jul-13
20	24212	27608	T-223A-13, Line L-050A-1, Marysville	1.27	L-050A-1	1.56	2.87	Marysville	Yes	1,3	12-Jun-13	12-Jul-13
21	23499	27622	T-240-13, Line L-162A, Tracy	1.34	L-162A	7.72	9.03	Tracy	No	3	13-Jun-13	15-Jul-13
22	N/A	30220	TS-003-13, Line GCUST5814, Palo Alto	0.00	GCUST5814	0.1	0.1	Palo Alto	Yes	3	8-Jul-13	17-Jul-13
23	24188	25870	T-028-12, Line DFM-2403-12, Fremont	2.83	DFM-2403-12	0.05	2.8771	Fremont	Yes	3	9-Jun-13	21-Jul-13
24	23911	31386	T-331A-14, Line DFM-1501-01, Yuba City	4.00	DFM-1501-01	0.04	3.99	Yuba City	Yes	3	14-Jun-13	24-Jul-13
25	23511	25860	TIM-022C-12, Line L-191-1, Walnut Creek	1.70	L-191-1	19.65	21.35	Walnut Creek	Yes	3	21-Jun-13	26-Jul-13
26	23511	25860	TIM-022D-12, Line L-191-1, Walnut Creek	1.04	L-191-1	19.65	21.35	Walnut Creek	Yes	3	21-Jun-13	26-Jul-13
27	23524	28408	T-208B-13, Line L-187, Soledad	3.39	L-187	41.08	42.64	Soledad	Yes	2,3	21-Jun-13	26-Jul-13
28	23532	27606	T-220-13, Line L-021B, Petaluma	4.15	L-021B	10.64	14.8	Petaluma	No	1,2	8-Jul-13	26-Jul-13
29	23570	27603	T-217-13, Line DFM-0215-01, Belmont	0.74	DFM-0215-01	0.02	0.78	Belmont	Yes	3	20-Jul-13	28-Jul-13
30	23864	27569	T-174-12, Line DFM-1816-05, Watsonville	0.80	DFM-1816-05	0	1.2	Watsonville	No	2,3	15-Jul-13	29-Jul-13
31	23524	28408	T-208C-13, Line L-187, Soledad	0.60	L-187	41.08	42.64	Soledad	Yes	2,3	21-Jun-13	9-Aug-13
32	23872	27632	T-268-13, Line DFM-1813-02, Seaside	0.38	DFM-1813-02	11.75	12.05	Seaside	No	3	12-Jul-13	12-Aug-13
33	23872	27649	T-269A-13, Line DFM-1813-02, Monterey	0.45	DFM-1813-02	12.52	12.95	Seaside	Yes	3	12-Jul-13	12-Aug-13
34	23499	27621	T-239-13, Line L-162A, Tracy	0.35	L-162A	4.41	4.76	Tracy	Yes	3	2-Aug-13	14-Aug-13
35	23550	27614	T-228-13, Line L-118B, Madera	6.69	L-118B	1.04	7.72	Madera	Yes	1,2,3	22-Jul-13	15-Aug-13
36	23892	29093	T-227-13, Line DFM-1023-01, Redding	1.16	DFM-1023-01	0.82	1.97	Redding	Yes	3	1-Aug-13	16-Aug-13
37	23524	28409	T-209-13, Line L-187, Soledad	4.04	L-187	46.63	50.67	Soledad	Yes	1,3	10-Aug-13	17-Aug-13
38	23511	25860	TIM-022B-12, Line L-191-1, Walnut Creek	4.33	L-191-1	19.65	21.35	Walnut Creek	Yes	3	21-Jun-13	23-Aug-13
39	23524	28410	T-210-13, Line L-187, Gonzales	5.89	L-187	50.67	56.55	Gonzales	No	1,3	20-Aug-13	30-Aug-13
40	23506	27623	T-241-13, Line L-177B, Chico	6.65	L-177B	0.86	7.51	Chico	Yes	1,2,3	29-Jul-13	5-Sep-13
41	N/A	30025	T-013C-12, Line L-109, Daly City	0.24	L-109	44.7195	45.39	Daly City	Yes	3	14-Aug-13	12-Sep-13
42	23872	27649	T-269B-13, Line DFM-1813-02, Monterey	3.48	DFM-1813-02	12.52	12.95	Monterey	Yes	3	12-Jul-13	12-Sep-13
43	23856	25889	T-038-12, Line DFM-1615-01, Modesto	10.14	DFM-1615-01	0.02	10.12	Modesto	Yes	1,3	25-Jul-13	15-Sep-13
44	23542	28411	T-211A-13, Line L-187, Chualar	3.59	L-187	56.55	60.03	Chualar	Yes	1,2,3	10-Sep-13	20-Sep-13
45	23493	25820	T-051A-12, Line L-142N, Bakersfield	0.47	L-142N	8.26	8.70	Bakersfield	Yes	3	31-Jul-13	21-Sep-13
46	23493	25820	T-051B-12, Line L-142N, Bakersfield	0.06	L-142N	8.26	8.70	Bakersfield	Yes	3	31-Jul-13	21-Sep-13
47	23493	25820	T-051C-12, Line L-142N, Bakersfield	1.66	L-142N	8.26	8.70	Bakersfield	Yes	3	31-Jul-13	21-Sep-13
48	23872	27648	TIM-267-13, Line DFM-1813-02, Marina	1.22	DFM-1813-02	8.50	9.71	Marina	Yes	1,3	12-Sep-13	23-Sep-13
49	23748	28495	T-281B-13, Line L-191, Antioch	2.62	L-191	3.88	6.4753	Antioch	Yes	3	11-Sep-13	1-Oct-13
50	23493	25820	T-051D-12, Line L-142N, Bakersfield	1.37	L-142N	8.26	8.70	Bakersfield	Yes	3	31-Jul-13	3-Oct-13
51	23533	25833	TIM-065-12, Line L-021C, Penngrove	8.39	L-021C	35.05	43.26	Penngrove	Yes	3,SPLIT	15-Sep-13	6-Oct-13

TABLE 23-1
PACIFIC GAS AND ELECTRIC COMPANY
PROJECT STATUS SUMMARY - PROJECTS COMPLETED
JANUARY 1, 2013 – DECEMBER 31, 2013

Line #	PSEP Filing PSRS	New PSRS	Project Description	Miles Completed	Line	MP1	MP2	City	HCA	Class Code	Clearance Date	Tie-in Date
52	23554	25864	T-081-12, Line L-119B, North Highlands	4.64	L-119B	2.23	6.88	North Highlands	Yes	3,SPLITS	8-Sep-13	7-Oct-13
53	23472	27651	T-272B-13, Line DFM-7223-01, Turlock	0.54	DFM-7223-01	9.475	10.10	Turlock	No	3	5-Sep-13	8-Oct-13
54	23690	27760	T-285-13, Line X6526, Kettleman City	0.28	X6526	0	0.26	Kettleman City	Yes	1	8-Jul-13	8-Oct-13
55	23567	23567	T-318A-14, Line DFM-0604-06, Vacaville	2.37	DFM-0604-06	0.49	2.968	Vacaville	Yes	3	16-Sep-13	9-Oct-13
56	23542	28411	T-211B-13, Line L-187, Chualar	5.70	L-187	56.55	60.03	Chualar	Yes	1,2,3	10-Sep-13	10-Oct-13
57	23550	27617	T-230-13, Line L-118B, Madera	9.27	L-118B	10.87	20.07	Madera	Yes	1,2,3	25-Sep-13	12-Oct-13
58	23511	25861	T-023-12, Line L-191-1, Martinez	3.68	L-191-1	31.9	35.83	Martinez	Yes	1,3	9-Sep-13	15-Oct-13
59	23856	25891	T-039A-12, Line DFM-1615-01, Modesto	4.82	DFM-1615-01	10.12	14.88	Modesto	Yes	3	23-Sep-13	18-Oct-13
60	23493	25820	T-051E-12, Line L-142N, Bakersfield	1.34	L-142N	8.26	8.70	Bakersfield	Yes	3	31-Jul-13	19-Oct-13
61	23733	31372	T-337-14, Line DFM-1603-03, Manteca	0.48	DFM-1603-03	0	0.4829	Manteca	No	3	8-Oct-13	22-Oct-13
62	23472	27651	T-272A-13, Line DFM-7223-01, Turlock	1.17	DFM-7223-01	9.475	10.10	Turlock	No	3	5-Sep-13	24-Oct-13
63	23926	30056	T-282A-13, Line L-172A, West Sacramento	0.60	L-172A	78.53	79.11	West Sacramento	Yes	3	30-Sep-13	25-Oct-13
64	23926	30056	T-282B-13, Line L-172A-1, West Sacramento	0.19	L-172A	78.53	79.11	West Sacramento	Yes	3	30-Sep-13	25-Oct-13
65	23569	27611	T-225A-13, Line DFM-0604-07, Vacaville	2.38	DFM-0604-07	4.1	6.41	Vacaville	Yes	1,3	10-Oct-13	30-Oct-13
66	23567	23567	T-318B-14, Line DFM-0604-06, Vacaville	0.48	DFM-0604-06	0.49	2.968	Vacaville	Yes	3	16-Sep-13	30-Oct-13
67	23911	31386	T-331B-14, Line DFM-1501-01, Yuba City	1.30	DFM-1501-01	0.04	3.99	Yuba City	Yes	3	14-Jun-13	30-Oct-13
68	24219	29707	T-355-14, Line L-300B, Kern	2.84	L-300B	269.33	272.176	Bakersfield	No	1,2	15-Oct-13	30-Oct-13
69	23769	30531	T-284-13, Line DFM-1815-02, Monterey	0.25	DFM-1815-02	19.24	19.49	Monterey	Yes	3	23-Sep-13	31-Oct-13
70	23569	27611	T-225B-13, Line DFM-0604-07, Vacaville	3.87	DFM-0604-07	4.1	6.41	Vacaville	Yes	1,3	10-Oct-13	22-Nov-13
71	23521	31108	T-303B-14, Line L-186, Dos Palos	8.96	L-186	10.14	19.17	Dos Palos	Yes	1,3	28-Oct-13	23-Nov-13
72	23521	31109	T-304-14, Line L-186, Dos Palos	6.93	L-186	19.17	26.13	Dos Palos	Yes	1,2,3	28-Oct-13	8-Dec-13
73	31511	31511	T-288A-13, Line L-300B, Bear Valley Springs	1.53	L-300B	241.4	242.91	Bear Valley Springs	Yes	1,2	1-Nov-13	19-Nov-13
74	31511	31511	T-288B-13, Line L-300B, Bear Valley Springs	0.86	L-300B	241.4	242.91	Bear Valley Springs	Yes	1,2	1-Nov-13	19-Nov-13

TABLE 25-1
PACIFIC GAS AND ELECTRIC COMPANY
PROJECT STATUS SUMMARY - PROJECTS COMPLETED
JANUARY 1, 2013 – DECEMBER 31, 2013

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	23970	23970	V-028 Valve Auto - Half Moon Bay Tap, 2V, Ph. 1	2	L-109	N/A	N/A	San Mateo	N/A	N/A	13-Feb-13	13-Feb-13
2	24284	24284	V-032 Valve Auto - SP3-Line 191 Mtr Sta, 4V, Ph 1	4	L-151	N/A	N/A	Pittsburg	N/A	N/A	19-Mar-13	19-Mar-13
3	23600	23600	V-013 Valve Auto - Hamlin Court, 1V, Ph. 1	1	L-109	N/A	N/A	Sunnyvale	N/A	N/A	26-Oct-12	1-Apr-13
4	23604	23604	V-017 Valve Auto - Sullivan Ave, 1V, Ph. 1	1	L-109	N/A	N/A	Daly City	N/A	N/A	6-Apr-13	6-Apr-13
5	23601	23601	V-014 Valve Auto - Sand Hill, 2V, Ph. 1	2	L-109	N/A	N/A	Menlo Park	N/A	N/A	1-Dec-12	16-Apr-13
6	24288	24288	V-038 Valve Auto - San Pablo, 3V, Ph. 1	3	L-105A	N/A	N/A	San Pablo	N/A	N/A	18-Apr-13	18-Apr-13
7	23606	23606	V-019 Valve Auto - Martin Station, 4V, Ph. 1	4	L-132	N/A	N/A	Daly City	N/A	N/A	25-Apr-13	25-Apr-13
8	23649	23649	V-051 Valve Auto - Fairway Avenue, 2V, Ph. 1	2	L-153	N/A	N/A	San Leandro	N/A	N/A	28-Jun-13	28-Jun-13
9	23624	23624	V-035 Valve Auto - Vine Hill, 1V, Ph. 1	1	SP-3	N/A	N/A	Martinez	N/A	N/A	14-Apr-13	2-Jul-13
10	23645	23645	V-049 Valve Auto - Alvarado, 1V, Ph. 1	1	L-153	N/A	N/A	Union City	N/A	N/A	10-Jul-13	10-Jul-13
11	23647	23647	V-050 Valve Auto - Winton Avenue, 1V, Ph. 1	1	L-153	N/A	N/A	Hayward	N/A	N/A	11-Jul-13	11-Jul-13
12	23663	23663	V-057 Valve Auto - Palm Tract, 2V, Ph. 1	2	L-057B	N/A	N/A	Brentwood	N/A	N/A	7-Aug-13	7-Aug-13
13	27893	27893	V-039A Valve Auto - Clayton Reg Station, 1V, Ph. 1	1	L-191-1	N/A	N/A	Concord	N/A	N/A	1-Jul-13	15-Aug-13
14	23622	23622	V-033 Valve Auto - Los Medanos, 3V, Ph. 1	3	SP-3	N/A	N/A	Concord	N/A	N/A	21-Aug-13	21-Aug-13
15	N/A	29461	V-083 Valve Auto - Helm Tap Station, 1V, Ph. 1	1	L-300A	N/A	N/A	Fresno	N/A	N/A	22-Aug-13	22-Aug-13
16	N/A	29463	V-084 Valve Auto - West Ford Ave, 1V, Ph. 1	1	L-300B	N/A	N/A	Fresno	N/A	N/A	29-Aug-13	29-Aug-13
17	N/A	29637	V-087 Valve Auto - L-138 Adams Elm Mtr RegStn, 1V, Ph. 1	1	L-138	N/A	N/A	Fresno	N/A	N/A	30-Aug-13	30-Aug-13
18	23623	23623	V-034 Valve Auto - Concord Meter Station, 1V, Ph. 1	1	SP-3	N/A	N/A	Concord	N/A	N/A	12-Sep-13	12-Sep-13
19	23660	23660	V-070 Valve Auto - Airport & Sonora, 3V, Ph. 1	3	L-108	N/A	N/A	Stockton	N/A	N/A	19-Sep-13	19-Sep-13
20	23637	23637	V-047 Valve Auto - Livermore Junction, 2V, Ph. 1	2	L-303	N/A	N/A	Livermore	N/A	N/A	25-Sep-13	25-Sep-13
21	23656	23656	V-072 Valve Auto - 8 Mile Pls, 2V, Ph. 1	2	L-108	N/A	N/A	Stockton	N/A	N/A	25-Sep-13	25-Sep-13
22	24254	28282	V-031B Valve Auto Delta Fair, 1V, Ph. 1	1	SP-5	N/A	N/A	Antioch	N/A	N/A	16-Aug-13	4-Oct-13
23	23631	23631	V-040 Valve Auto - Walnut Ave, 1V, Ph. 1	1	L-191-1	N/A	N/A	Walnut Creek	N/A	N/A	5-Jul-13	11-Oct-13
24	23674	23674	V-063 Valve Auto - Valero Refinery Tap, 3V, Ph. 1	3	L-210C	N/A	N/A	Benicia	N/A	N/A	14-Oct-13	14-Oct-13
25	23651	23651	V-052 Valve Auto - 51St Avenue, 1V, Ph. 1	1	L-105N	N/A	N/A	Oakland	N/A	N/A	25-Oct-13	25-Oct-13
26	23658	23658	V-071 Valve Auto - West Lane & Hammertown, 3V, Ph. 1	3	L-108	N/A	N/A	Stockton	N/A	N/A	1-Nov-13	1-Nov-13
27	23635	23635	V-045 Valve Auto - East Airway, 3V, Ph. 1	3	L-131	N/A	N/A	Livermore	N/A	N/A	4-Nov-13	4-Nov-13
28	23655	23655	V-053 Valve Auto - 4th & Jefferson, 1V, Ph. 1	1	L-105N	N/A	N/A	Oakland	N/A	N/A	11-Oct-13	6-Nov-13
29	27532	27532	V-031A Valve Auto - California, 1V, Ph. 1	1	L-191	N/A	N/A	Pittsburg	N/A	N/A	1-Oct-13	14-Nov-13
30	23602	23602	V-015 Valve Auto - Edgewood, 6V, Ph. 1	6	L-109	N/A	N/A	Redwood City	N/A	N/A	15-Jul-13	27-Nov-13
31	23662	23662	V-069 Valve Auto - Airport & French Camp, 3V, Ph. 1	3	L-108	N/A	N/A	Stockton	N/A	N/A	2-Dec-13	2-Dec-13
32	23603	23603	V-016 Valve Auto - Crystal Springs, 4V, Ph. 1	4	L-109	N/A	N/A	Hillsborough	N/A	N/A	12-Sep-13	5-Dec-13
33	23675	23675	V-061 Valve Auto - Sac Gas Load Center, 4V, Ph. 1	4	L-108	N/A	N/A	Sacramento	N/A	N/A	17-Dec-13	17-Dec-13
34	24281	30014	V-030 Valve Auto - Antioch Terminal, 5V, Ph. 1	5	L-303	N/A	N/A	Antioch	N/A	N/A	9-Nov-13	19-Dec-13
35	24022	24022	L-300A MP353 to MP391 ILI Inspection P&A	39.00	L-300A	352.3	391.2	Kettleman City	Yes	1,2	3-Apr-13	15-Apr-13
36	24023	24023	I-005 L-300A MP 299-352 UPGRADE PH-1	54.80	L-300A	299	352	Fresno	Yes	1,3	20-Apr-13	27-Jul-13
37	24017	24017	I-003 L-300B MP 299-351.8 UPGRADE PH-1	54.80	L-300B	299	351.8	Fresno	No	1	24-Mar-13	25-Oct-13
38	24017	24025	I-006 L-132 MP 31.96-38.39 UPGRADE PH-1	6.50	L-132	31.96	38.39	Hillsborough	Yes	3	8-Nov-13	13-Dec-13