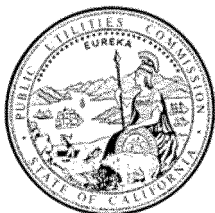


Docket:	:	<u>R.11-02-019</u>
Exhibit Number	:	<u>DRA-08</u>
Commissioner	:	<u>Florio</u>
ALJ	:	<u>Bushey</u>
Witness	:	<u>Godfrey</u>



**DIVISION OF RATEPAYER ADVOCATES
CALIFORNIA PUBLIC UTILITIES COMMISSION**

**DRA Report on the
Pipeline Safety Enhancement Plan of
Pacific Gas & Electric Company**

Pipeline Records Integration Program

San Francisco, California
January 31, 2012

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1 **PIPELINE RECORDS INTEGRATION PROGRAM**
2

3 **I. INTRODUCTION**

4 This exhibit presents the analyses and recommendations of the Division of
5 Ratepayer Advocates (DRA) regarding the forecasts of Pacific Gas and Electric
6 Company's (PG&E) Pipeline Records Integration Program (PRIP) costs for 2012
7 through 2014, which are part of its Pipeline Safety Enhancement Plan (PSEP).

8 PG&E states that the objective of its PRIP is to "address the changing records
9 management needs of PG&E's gas transmission business".¹ PG&E states further
10 that its "gas transmission business will need improved access to detailed information
11 about the components making up the 6,761 miles of gas transmission pipe that have
12 been installed over many decades."²

13 **II. SUMMARY OF RECOMMENDATIONS**

14 PG&E forecasts a total cost of \$285.9 million³ for its PRIP for the period of
15 2011 through 2014, and is requesting that \$222.8 million of the \$285.9 million be
16 funded by ratepayers. PG&E's request is composed of a Maximum Allowable
17 Operating Pressure (MAOP) Records Validation Project and a Gas Transmission
18 Asset Management (GTAM) Project.⁴ DRA recommends that PG&E's request for
19 additional ratepayer funding of \$222.8 million for its PRIP be denied for the following
20 reasons.
21
22
23

¹ PG&E's Direct Testimony on PG&E's Pipeline Safety Enhancement Plan (Implementation Plan), p.5-7

² Id., p.5-7.

³ Id., p.5-4, Table 5-1.

⁴ Id., p.5-1.

- 1 □ PG&E’s request for additional ratepayer funding of \$222.8 million for its
2 PRIP (\$107.1 million for its MAOP Records Validation Project and \$115.7
3 million for its GTAM Project) should be denied. PG&E has failed to
4 accurately and completely record and maintain detailed information about
5 the components making up its 6,761 miles of gas transmission pipe for 30
6 years. PG&E’s forecast estimates cannot be substantiated, its bottoms-up
7 estimating method is inappropriate, and its Geographic Information
8 System (GIS) data associated with its gas transmission pipeline system is
9 unreliable.⁵
- 10 □ Incremental funding for the PRIP that PG&E requires over and above what
11 has already been authorized in its 2011 General Rate Case (GRC) and its
12 2011 Gas Transmission and Storage (GT&S) proceeding should be
13 funded by PG&E’s shareholders.
- 14 □ In its next GRC, PG&E should be able to demonstrate that it has utilized
15 and incorporated historical embedded costs to perform activities
16 associated with its PRIP. PG&E’s historical expenses include costs for
17 closed and completed Informational Technology projects (IT), on-going,
18 normal, and routine maintenance activities for gas transmission
19 recordkeeping and existing database systems, and IT upgrades, revisions,
20 database consolidations, and IT mobile devices.
- 21 □ In its next GRC, PG&E should be required to demonstrate all savings
22 associated with reduced staff time to perform various gas transmission
23 recordkeeping maintenance activities discussed in its testimony in this
24 proceeding and related efficiency gains and clearly identify all estimated
25 ratepayer savings and benefits associated with its PRIP.
- 26 □ In its next GRC, PG&E should be required to demonstrate that it has
27 tracked each specific PRIP cost, maintained detailed documentation to
28 trace and verify the accuracy of each cost, provide the status on the
29 process and progress of addressing and correcting all deficiencies in its
30 GIS system and pipeline records program, so that PG&E will be fully
31 prepared for a reasonableness review.
- 32
33
34
35

⁵ PG&E provided the methodology it utilized to calculate the forecast for its MAOP Records Validation Project and its GTAM Project in its response to DRA data request DRA-TLG-1, question 1-h.

1 Table 1-1 compares DRA's recommendations with PG&E's proposed
2 estimates for its PRIP.

3 **Table 1-1**
4 **PG&E's Pipeline Records Integration Program**

Description	PG&E 2011 Costs Estimates to be Funded by Shareholders	PG&E Proposed 2012 - 2014 Costs to be Funded by Ratepayers	DRA Recommended Ratepayer Funding
MAOP Project	\$55.2	\$107.1	\$0
GTAM Project	7.9	\$115.7	\$0
Total	\$63.1	\$222.8	\$0

5 **III. REVIEW OF PG&E'S 2011 GRC AND 2011 GT&S RATE CASE**
6 **AUTHORIZED FUNDING LEVELS AND GT&S REVENUES**

7 During DRA's analysis and evaluation of PG&E's PRIP to determine the
8 reasonableness of the proposed forecast, DRA reviewed the funding authorized in
9 PG&E's 2011 GRC and 2011 GT&S rate case.⁶ In PG&E's 2011 GRC (D.11-05-
10 018) PG&E was authorized an increase for 2011 of \$450 million or an 8.1% increase
11 over previously authorized levels of \$5.582 million.⁷ PG&E was authorized
12 additional post-test year attrition increases of \$180 million in 2012 and \$185 million
13 in 2013. In PG&E's 2011 GT&S rate case (D.11-04-031) PG&E was authorized
14 \$514.2 million for 2011, \$541.4 million for 2012, \$565.1 million for 2013, and \$581.8
15 million in 2014.⁸ PG&E has not provided documentation to demonstrate that its
16 authorized funding levels in its 2011 GRC and 2011 GT&S rate case are insufficient
17 to meet its proposed PRIP activities.

18 Based on a report prepared by Overland Consulting and submitted to CPSD,
19 on PG&E's Gas Transmission Pipeline Safety-Related Expenditures, PG&E's GT&S
20 rate case operations have been "highly profitable", however PG&E failed to utilize its
21 surplus revenues to "improve gas safety." The report states:
22

⁶ See DRA's detailed discussion, analysis and recommendations regarding PG&E's 2011 GRC and 2011 GT&S rate case and 2011 GT&S Revenues in DRA Exhibit DRA-02.

⁷ D.11-05-018, p.2.

⁸ D.11-04-031, p.9.

1 PG&E's GT&S revenues were \$430 million higher than the
2 amounts needed to earn the authorized return during the twelve-
3 year study period. The surplus revenues averaged \$36 million a
4 year. PG&E could have used the surplus revenues, at least in part,
5 to improve gas safety. Instead, PG&E chose to use the surplus
6 revenues for general corporate purposes.⁹

7
8 PG&E has failed to efficiently utilize its authorized funding and surplus
9 revenues to ensure that all identified deficiencies over the last 30 years associated
10 with its gas transmission pipeline recordkeeping activities were corrected.
11 Therefore, PG&E's request for additional ratepayer funding for its PRIP to correct its
12 gas transmission pipeline recordkeeping deficiencies is unreasonable and should be
13 denied.

14 **IV. DISCUSSION / ANALYSIS OF PG&E'S PIPELINE RECORDS** 15 **INTEGRATION PROGRAM COSTS**

16
17 PG&E forecasts a total cost of \$285.9 million for its PRIP, and is requesting
18 that \$222.8 million (2012 through 2014) be funded by ratepayers. The request is as
19 follows: \$63.1 million for 2011, \$130.3 million for 2012, \$59.6 million for 2013 and
20 \$32.9 million for 2014.¹⁰ PRIP costs includes "two work efforts": validation of the
21 Maximum Allowable Operating Pressure (MAOP) of its transmission pipelines based
22 on the pipeline features (MAOP Records Validation Project) with a total cost of
23 \$162.3 million (to address pre-1970 pipes), and PG&E's activities associated with
24 upgrades to its gas transmission processes and record management infrastructure
25 (Gas Transmission Asset Management or GTAM Project) with a total cost of \$123.6
26 million.¹¹

27 PG&E's request for ratepayer funding of its PRIP is unreasonable for the
28 reasons discussed in detail in the following sections of this report. The costs

⁹ Overland Consulting report on PG&E's Gas Transmission Pipeline Safety-Related Expenditures, dated December 30, 2011, p.1-3.

¹⁰ Id., p.5-4.

¹¹ Id., p.5-1 and p.5-4.

1 included in PG&E's PRIP forecast cannot be substantiated and the gas transmission
2 data in its GIS system is unreliable and should not be utilized as a basis for or
3 incorporated into the MAOP Records Validation or GTAM project forecast. The
4 Commission's Consumer Protection and Safety Division (CPSD) report on PG&E's
5 Pipeline Safety Enhancement Plan expressed concern over PG&E's forecasting
6 method utilized and the calculated costs for PG&E's MAOP Records Validation and
7 GTAM projects. CPSD's report states the following:

8
9 It appears that PG&E has developed a GTAM and MAOP cost
10 forecast using best available information and practices, but
11 estimates, being Class 4, still contain a high level of uncertainty.
12 Consequently, we believe it appropriate that PG&E revisit its costs
13 estimates annually based on its progress and new knowledge
14 gained through the data examination.¹²
15

16 In regards to the unreliability of PG&E's Geographic Information System (GIS)
17 data, the National Transportation Safety Board (NTSB) states the following: "The
18 foundation of risk assessment is accurate information. The NTSB is concerned that
19 the PG&E GIS still has a large percentage of assumed, unknown, or erroneous
20 information for Line 132 and likely its other transmission pipelines as well."¹³
21 CPSD in its report also found problems with PG&E's PRIP costs and related GIS
22 information and because of this recommended "costs concessions" be made in the
23 forecast. CPSD's report states the following:

24
25 PG&E has admitted that some of the information in the existing GIS
26 system is not sufficiently detailed to permit analysis of MAOP and
27 other data attributes. Consequently, to some extent the expense
28 associated with originally populating the GIS will need to be
29 duplicated. Since PG&E's existing GIS and Pipeline Records
30 Program cannot be relied upon as a comprehensive and accurate
31 source of gas transmission information, costs concessions in the

¹² CPSD's report on PG&E's Pipeline Safety Enhancement Plan, p.13.

¹³ NTSB Natural Gas Transmission Pipeline Rupture and Fire report on San Bruno, p.110 (Adopted August 30, 2011).

1 Pipeline Records Integration Program should be considered to
2 compensate for duplicative efforts.¹⁴

3
4 Based on the above concerns and the uncertainty surrounding PG&E's cost
5 estimates and GIS data, PG&E should not be authorized any additional ratepayer
6 funding for its PRIP. PG&E should be required to track each specific PRIP cost,
7 maintain detailed documentation to trace and verify the accuracy of each cost,
8 provide the status on the process and progress of addressing and correcting all
9 deficiencies in its GIS system and pipeline records program, and provide all this
10 information in its next GRC for a reasonableness review.

11 **A. DRA's Analysis**

12 DRA conducted its analysis by reviewing PG&E's testimony and workpapers,
13 and by issuing data requests and analyzing responses. DRA had telephone
14 discussions with PG&E's witnesses to obtain additional information to clarify forecast
15 requests and met with PG&E's witnesses to discuss findings and questions pertinent
16 to data requests and responses. DRA also reviewed, as part of its analysis of
17 PG&E's PRIP, CPD's report on PG&E's Pipeline Safety Enhancement Plan relating
18 to PG&E's PRIP, Overland Consulting report submitted to CPD on a Focused Audit
19 of PG&E's Gas Transmission Pipeline Safety-Related Expenditures for the period
20 1996 to 2010, various sections of the Public Utilities Code, and the NTSB's Natural
21 Gas Transmission Pipeline Rupture and Fire report on San Bruno.

22 **B. MAOP Records Validation Project**

23 PG&E forecasts \$107.1 million for 2012 and 2013 for its MAOP Records
24 Validation Project expenses: \$82.2 million in 2012 and \$24.9 million in 2013.¹⁵
25 PG&E utilized a bottoms-up method to calculate its forecast.¹⁶ PG&E's MAOP

¹⁴ CPD's report on PG&E's Pipeline Safety Enhancement Plan, p.13.

¹⁵ Id., p.5-13.

¹⁶ PG&E states "The financial forecast for the entire effort was prepared using a bottoms-up approach, supported by various assumptions..." PG&E's response to DRA data request DRA-TLG-1, question 1-i. PG&E provided the methodology it utilized to calculate the forecast for its MAOP Records Validation Project and its GTAM Project in its response to

(continued on next page)

1 Records Validation project involves the collection and verification of all pipeline
2 strength tests and pipeline features data necessary for PG&E to be able to calculate
3 the MAOP for its pipelines and all associated components of the pipeline.¹⁷ PG&E's
4 request for \$107.1 million is to address Part 3¹⁸ of its MAOP Records Validation
5 Project (High Consequence Areas (HCA) and non-HCA)¹⁹ for pipelines installed
6 prior to 1970.²⁰ DRA recommends zero ratepayer funding for Part 3 of PG&E's
7 MAOP Records Validation Project. PG&E's forecast estimate of \$107.1 million has
8 not been adequately justified and it would be unreasonable to impose these costs on
9 ratepayers.

10 PG&E started working on its MAOP Records Validation Project to meet
11 directives from the CPUC, based on urgent recommendations from the NTSB due
12 primarily to the serious problems discovered with regards to PG&E's gas
13 transmission pipeline recordkeeping. NTSB Chairman Deborah Hersman stated of
14 the San Bruno accident and PG&E's recordkeeping and other internal problems:

(continued from previous page)

DRA data request DRA-TLG-1, question 1-h.

¹⁷ Id., p.1-8.

¹⁸ PG&E divided its MAOP Records Validation Project into three parts. The first two parts were required to meet NTSB and CPUC directives for which PG&E claims it is not seeking rate recovery (the three parts of the project are discussed on pp.5-8 through 5-12 in PG&E's Direct Testimony).

¹⁹ PG&E's testimony appears to be inconsistent regarding the cost recovery for MAOP Records Validation for HCA segments. PG&E was ordered to perform MAOP validation on Class 3 and Class 4 pipeline segments plus HCA segments in Class 1 and Class 2. PG&E states on p.5-9 in its Direct Testimony that it "does not seek cost recovery for this effort." However, PG&E's testimony states the following regarding HCA segments: "PG&E is seeking cost recovery for the work performed related to validating the MAOP of all gas transmission lines (HCA and non-HCA) installed prior to 1970..." (PG&E's Direct Testimony, p.5-13).

²⁰ PG&E states "that seeking recovery for the costs to validate the MAOP for transmission pipelines installed prior to July 1, 1970 is reasonable in light of regulatory changes that permitted the "grandfathering" of pipelines installed prior to July 1, 1970 from certain federal regulations" PG&E's response to DRA data request DRA-TLG-1, question 1-b. The "regulatory changes that permitted the "grandfathering" of pipelines installed prior to July 1, 1970" that PG&E mentions above did not exempt PG&E from its responsibilities of accurately and completely maintaining assessable records on its potentially dangerous gas transmission pipelines in order to ensure safety and reliability of its system.

1 “This tragedy began years ago with PG&E’s 1956 installation of a woefully
 2 inadequate pipe.”²¹ The Chairman stated further in regards to the accident that “It
 3 was compounded by a litany of failures – including poor recordkeeping, inadequate
 4 inspection programs, and an integrity management program without integrity.”²²

5 Table 1-2 shows PG&E’s proposed forecast for its MAOP Records Validation
 6 project and DRA’s recommendation.²³ Table 1-3 shows the individual line item cost
 7 assumptions and associated order numbers that are included in PG&E’s forecast for
 8 its MAOP Records Validation Project.²⁴

9
 10 **Table 1-2**
 11 **PG&E’s Proposed MAOP Records Validation Project Forecast**
 12 **and DRA’s Recommendation**
 13 **(\$ in Millions)**

2011	2012	2013	Total	DRA
\$55.2	\$82.2	\$24.9	\$162.3	\$0

14
 15 **Table 1-3**
 16 **PG&E’s MAOP Records Validation Project Cost Assumptions**
 17 **(\$ in Millions)**

Order Number	Activity	PG&E Forecast
41464520	Document Preparation	\$ 54.9
41463067	PFL Build & MAOP Calculation	66.0
41489483	Nondestructive Excavations	7.5
41463070/41502220	ISTS Applications Support	6.9
41463069	ISTS Infrastructure Support	3.1
41463068	Project Management	20.6
41463071	Project Overheads	3.3
Total		\$162.3

18
 19
 20
 21 NTSB Press Release “NTSB cites Pacific Gas & Electric (PG&E) and government oversight in fatal California pipeline rupture” (dated August 30, 2011).

22 Id.

23 PG&E’s Table 5-1 on p.5-4 in its Direct Testimony. PG&E states that 2011 expenses and capital related costs will be funded by its shareholders.

24 PG&E’s Table 5-3 on p.5-14 in its Direct Testimony.

1 **1. MAOP Gas Safety Recordkeeping Activities**

2 PG&E states that its “cost to validate the MAOP of the gas transmission lines
3 is incremental to the costs included in the Gas Accord V Settlement approved by the
4 Commission in Decision D.11-04-031” and therefore its request for additional
5 ratepayer funding should be authorized.²⁵ DRA disagrees. The activities included
6 in PG&E’s MAOP Records Validation Project (i.e., collecting, organizing, and
7 maintaining specific information on its gas transmission pipelines, installed pipe and
8 associated as-built drawings, alignment sheets, pipeline specifications, all design,
9 construction, inspection, testing, maintenance, and other related records, such as
10 system components, pipe segments, valves, fittings, weld seams, etc.) are the same
11 activities associated with prudent gas safety recordkeeping and should be part of the
12 normal, routine and on-going maintenance activities that are already funded by
13 ratepayers, and it would be inappropriate to charge ratepayers twice to address
14 these activities that have costs embedded in historical expenses. In regards to gas
15 safety recordkeeping, the Commission states the following:²⁶

16 We define ‘gas safety recordkeeping’ in this context to mean
17 PG&E’s acquisition, maintenance, organization, safekeeping, and
18 efficient retrieval of data that the Commission finds is necessary
19 and appropriate under the circumstances for PG&E to make good
20 and safe gas engineering decisions, and thus to promote safety as
21 required by Section 451 of the Public Utilities Code.
22

23 Although the authorized funding in PG&E’s 2011 GRC and GT&S rate case
24 did not specifically identify the amounts to address natural gas transmission
25 recordkeeping, PG&E is well aware that it is authorized funding for these activities in
26 order for it to provide safe and reliable service. Recordkeeping activities and costs
27 are recorded in Federal Energy Regulatory Commission (FERC) Uniform System of
28 Accounts 859 (Transmission Maps and Records) and FERC Account 880
29 (Distribution Maps and Records). An example of PG&E requesting and being
30 authorized funding to address gas recordkeeping activities in FERC Account 859

²⁵ PG&E’s Direct Testimony at p.5-14.

²⁶ I.11-02-016 p.11.

1 was to update drawings for its Line 300 “in order to provide accurate records from
2 which to begin reconstruction of portions of 33-year old facilities.”²⁷ PG&E is
3 obligated to exercise competent managerial discretion and is expected to utilize
4 authorized funding to ensure that this extremely important and necessary function of
5 gas safety recordkeeping is accurately and completely performed.²⁸

6
7 Regarding the utilities obligation to exercise competent managerial discretion
8 and utilize authorized funds to ensure safe and reliable service, the Commission has
9 stated the following:

10 Approval of the RIIM in no way absolves Edison of its responsibility
11 to provide safe and reliable service should the level of expenditure
12 required to provide safe and reliable service exceed what is
13 forecast. In this regard, the RIIM functions much like a one way
14 balancing account. While it requires Edison to return unspent funds
15 to ratepayers should it spend less than approved herein on
16 reliability related capital, it does not provide for rate recovery of
17 expenditures in excess of what has been forecast. We remind
18 Edison that it has an unavoidable obligation to serve its customers
19 safely and reliably. To do so, SCE is obligated to exercise
20 competent managerial discretion and make the necessary capital
21 expenditures and capital repairs and maintenance even if those
22 expenditures exceed test year forecasts. Test year ratemaking is
23 not a guarantee of full recovery or of fully expending the amounts
24 as forecast. The “regulatory compact” is that in exchange for a
25 reasonable opportunity of earning a fair return, ratepayers pay the
26 adopted rates and the utility does what is necessary to provide safe
27 and reliable service.²⁹
28

²⁷ PG&E requested and was authorized funding to address gas recordkeeping activities in FERC Account 859 in D.83-12-068 (A.82-12-48).

²⁸ The Pipeline and Hazardous Materials Safety Administration “emphasized in its advisory bulletin after PG&E’s record-keeping deficiencies first came to light, an operator’s awareness of the physical attributes of its pipelines “is a vital component in an operator’s ability to identify and evaluate the risks to its pipeline and identify the appropriate assessment tools,...[and] if this information is unknown, or unknowable, a more conservative approach to operations is dictated.” (NTSB Natural Gas Transmission Pipeline Rupture and Fire report on San Bruno, p.108.)

²⁹ D.09-03-025, p.323.

1 PG&E has been deficient in its responsibility to accurately and completely
2 record and maintain “detailed information about the components making up the
3 6,761 miles of gas transmission pipe” for many years, and it is unreasonable for
4 PG&E to request additional ratepayer funding to address its deficiencies. In 1981,
5 the NTSB investigated a gas pipeline leak on August 25, 1981, in San Francisco,
6 which took PG&E 9 hours and 10 minutes to stop the flow of gas. The delay in
7 stopping the flow of gas was due to PG&E’s inability to locate one emergency valve
8 because of inaccurate recordkeeping.³⁰ In a 1984 review on PG&E’s Pipeline
9 Replacement Program Transmission Line Risk Analysis performed by Bechtel
10 Petroleum, Inc. (Bechtel) at PG&E’s request, problems were discovered during the
11 data collection process due to PG&E’s missing pipeline records which prevented an
12 accurate and complete risk analysis. The purpose of the Risk Analysis was to assist
13 PG&E in selecting the order of replacements for various pipelines that were part of
14 the scope of its pipeline replacement program. Bechtel’s report stated:

15

16 During the data collection process, the area engineers were
17 sometimes confronted with the problem of missing records that
18 prevented them from finding variable values. In these cases, an
19 “unknown” entry was inputted into the data base and the failure
20 probability analysis immediately assumed the worst case. The
21 worst case values were then multiplied by their respective hazard
22 values and the result was displayed under the “uncertainty” column
23 of the computer output (see Appendix A). These uncertainty values
24 are intended to serve as a flag signaling the necessity to confirm
25 these assumptions through more extensive research. This
26 extended research will take place on only those lines whose high
27 risk values justify the additional time and effort...Clearly the result
28 of any risk analysis is entirely dependent upon the quality of
29 information accessed. The presence of unknowns and highly
30 suspect data variables combined with the lack of mathematical
31 precision in the evaluation of risk parameters places limitations on
32 the applicability of the risk values.³¹

³⁰ NTSB Natural Gas Transmission Pipeline Rupture and Fire report on San Bruno, p.81.

³¹ Preliminary Report by Bechtel Petroleum, Inc, performing Engineering Consulting Services for PG&E, on Pipeline Replacement Program Transmission Line Risk Analysis (dated January 1984), pp.1 and 13 and 14.

(continued on next page)

1 This report put PG&E on notice once again that it had missing pipeline
2 records that were required to perform a complete pipeline risk assessment. Based
3 on this information PG&E should have made the necessary corrections to its pipeline
4 records to ensure that it had accurate and complete records to perform the activities
5 necessary to implement its pipeline replacement program.

6 Similar to this, it was discovered in the investigation into the September 9,
7 2010 San Bruno explosion that PG&E's important and relevant records associated
8 with the 1956 relocation project on Line 132 were inaccurate and incomplete (it took
9 PG&E 95 minutes to stop the flow of gas and isolate the rupture site). Another
10 example of PG&E's inefficient recordkeeping of its gas records was discovered on
11 December 21, 2011 when 16 gas distribution plat maps³² were discovered for areas
12 in Contra Costa County after being misplaced and "inadvertently" not included in
13 leak survey maintenance schedules.³³ The 16 misplaced plat map records meant
14 that 14 miles of gas distribution pipelines, which connect to approximately 1,242
15 customers, were not checked for leaks for several years.³⁴

16 PG&E apparently has not learned from past mistakes and has not efficiently
17 utilized authorized ratepayer funding to aggressively correct its gas transmission

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<http://www.cpuc.ca.gov/NR/rdonlyres/E75846A0-FAD1-4A0C-AACF-C176D9F8DD7B/0/TransmissionLineRiskAnalysis1984.pdf>

³² PG&E's 16 misplaced plat maps are supposedly used to track repairs and safety of gas distribution lines in its Diablo division.

³³ It has been reported that PG&E had been issuing employee bonuses to its managers "whose crews found fewer leaks per mile in the company's network. The de facto incentive not to find leaks was eliminated after whistle-blowers notified company management about problems with the leak surveys". Apparently when PG&E performed new leak surveys after the problem was discovered, PG&E found "thousands of previously unidentified leaks" (SF Chronicle, "Missing maps mean PG&E lines weren't inspected", dated December 31, 2011). Regarding employee bonuses, in March of 2011 PG&E paid out \$80.9 million in short-term incentive plan payments (STIP) to its employees, including employees working on gas operations, for plan year 2010 even though PG&E incurred substantial costs associated with the September 9, 2010 San Bruno explosion. PG&E's response to DRA's data request DRA-TLG-1, question 2.

³⁴ SF Chronicle, "Missing maps mean PG&E lines weren't inspected", dated December 31, 2011.

1 pipeline records in the last 30 years.³⁵ DRA requested additional information on
2 PG&E’s MAOP Records Validation Project:

3 DRA asked:³⁶

4 On page 5-3 PG&E states “The Commission is presently
5 investigating PG&E’s recordkeeping practices to ascertain if it
6 violated gas safety recordkeeping rules or other applicable laws.
7 This investigation may identify recordkeeping deficiencies”. PG&E
8 states further that the “primary objective of the Pipeline Records
9 Integration Program is to transition PG&E away from reliance on
10 traditional paper records and to consolidate data into robust data
11 management systems, not to address past recordkeeping
12 deficiencies”. 1) Provide documentation that explains in detail if
13 PG&E believes that its “past recordkeeping deficiencies” did not
14 have a negative impact on the proper maintenance of its gas
15 transmission pipelines. 2) Provide documentation that explains in
16 detail and which demonstrates fully why PG&E believes that
17 ratepayers should provide additional funding over and beyond its
18 authorized amounts in its 2011 GRC (D.11.05.018) and its GT&S
19 for 2011-2014 (D.11-04-031) to address PG&E’s “past
20 recordkeeping deficiencies”.

21
22 PG&E’s response:

23
24 The Commission’s investigation of PG&E’s record keeping
25 practices is an ongoing matter. It is pre-mature to draw
26 conclusions. PG&E recognizes that improvements to its record
27 keeping processes are needed. As stated in Chapter 2A, page 2A-
28 10 of PG&E’s June 20, 2011 filing in I.11-02-016, “PG&E realizes,
29 however, that it needs to do more to improve its records
30 management practices to support modern pipeline safety practices.
31 It needs to work harder to ensure the durability and reliability of
32 records over time, and it needs to implement records management
33 tools that promote wider and quicker access to, and integrated
34 analysis of, reliable pipeline safety data.”

³⁵ The NTSB report found that “many of the organizational deficiencies were known to PG&E, as a result of previous pipeline accidents in San Francisco in 1981, and in Rancho Cordova, California, in 2008. As a lesson from those accidents, PG&E should have critically examined all components of its pipeline installation to identify and manage the hazardous risks, as well as to prepare its emergency response procedures. If this recommended approach had been applied within the PG&E organization after the San Francisco and Rancho Cordova accidents, the San Bruno accident might have been prevented”. (NTSB Natural Gas Transmission Pipeline Rupture and Fire report on San Bruno, pp.117 and 118).

³⁶ DRA data request DRA-TLG-1 question 1-e.

1 The work in the MAOP Validation project is necessary to meet the
2 NTSB's recommendation of validating the MAOP of the gas
3 transmission pipeline to a standard of traceable, verifiable, and
4 complete. Neither the MAOP Validation Project nor the GTAM
5 Project is directed towards remediating prior recordkeeping
6 deficiencies to PG&E's system of record (the system of record
7 consists of the paper records that PG&E is using to perform the
8 MAOP validation). Rather, they are intended to provide highly
9 detailed information about the pipeline system to some of the
10 critical working records that PG&E uses in its day to day
11 operations. PG&E believes that the application of this standard to
12 the working files and records represents a new standard for the
13 pipeline industry and is directly a result of lessons learned from the
14 San Bruno accident.

15 With respect to amounts authorized in the GT&S rate case, after
16 the Gas Accord V Settlement was submitted to the Commission,
17 but before its approval, the Administrative Law Judge issued a
18 ruling requesting that parties comment on the adequacy of the
19 proposed settlement agreement in light of the "pipeline safety,
20 integrity, and reliability concerns raised by the San Bruno natural
21 gas incident". In PG&E's September 20, 2011 response to this
22 question, PG&E stated that "the settlement provides sufficient funds
23 for PG&E to conduct the integrity management and pipeline safety
24 and reliability work PG&E had forecast would be necessary during
25 the rate case period, namely 2011 through 2014". In addition,
26 PG&E stated that, "the funding level reflected in the settlement
27 does not include sufficient funds to do the thorough safety
28 inspection of PG&E's entire gas transmission system referred to in
29 the Ruling. Nor does the funding level in the settlement include
30 sufficient funds for any specific additional work the Commission
31 may direct PG&E to perform".

32 With respect to funding authorized in the GRC, it should be noted
33 that PG&E's GRCs do not typically cover gas transmission pipeline
34 costs. Moreover, the approved Settlement Agreement for the 2011
35 GRC provided that "The Agreement provides sufficient funding for
36 PG&E to perform all gas distribution operations and maintenance
37 work at currently mandated levels." D.11-05-018, p.1-6.

38 In light of the substantial uncertainty that existed at the time of
39 those settlement agreements it made sense that the Commission
40 approve rates to cover normal, baseline operating costs and then to
41 request that PG&E identify extraordinary costs related with
42 improving public safety in this proceeding.
43

44 On one hand PG&E's statements made above acknowledge that "The
45 Commission's investigation of PG&E's record keeping practices is an ongoing

1 matter” and based on this PG&E believes “It is pre-mature to draw conclusions” in
2 this proceeding. On the other hand, PG&E wants the Commission, in this
3 proceeding, to disregard and/or ignore the “ongoing matter” and quickly “draw
4 conclusions” and authorize its request for additional ratepayer funding for its MAOP
5 Records Validation Project. PG&E appears to have a disconnect in understanding
6 the fact that its past recordkeeping failures are due to its past recordkeeping
7 inefficiencies which created the current recordkeeping conditions and the reason for
8 the NTSB’s urgent recommendations and the Commission’s orders associated with
9 its MAOP Records Validation Project. The Commission must hold PG&E fully
10 accountable for its failure to utilize its past authorized funding to completely and
11 accurately maintain easily accessible operating records on the specific details and
12 maintenance activities of its gas pipelines.

13 Although PG&E states in its response above that “the funding level reflected
14 in the settlement does not include sufficient funds to do the thorough safety
15 inspection of PG&E’s entire gas transmission system referred to in the Ruling,”
16 PG&E fails to acknowledge that activities associated with maintaining complete and
17 accurate records associated with its gas transmission system are an on-going,
18 normal and routine maintenance activity, which are covered by “the funding level
19 reflected in the settlement”. Normal maintenance of necessary records is distinct
20 from the “thorough safety inspection of PG&E’s entire gas transmission system
21 referred to in the Ruling.”

22 PG&E argues that maintaining its gas transmission pipeline records in a
23 traceable, verifiable, and complete manner “adds specificity to existing gas pipeline
24 safety recordkeeping requirements” and therefore requires additional funding.³⁷
25 “Adding specificity” does not justify additional ratepayer funding. It is sound
26 business practice for PG&E to properly and accurately maintain complete and easily
27 accessible records that can be verified and traced, relating to the specific
28 characteristics of all of PG&E’s gas transmission pipelines.³⁸ Regarding PG&E’s

³⁷ PG&E’s Direct Testimony, p.5-6.

³⁸ The Code of Federal Regulations (CFR) also requires gas transmission pipeline

(continued on next page)

1 Record Retention and Disposal Standards (Corporation Standard: GOV-7001S
2 Publication Date 10/01/2010, Rev 0), PG&E states the following on p.2: “Failing to
3 keep records for periods required by law, regulation, or sound business practices
4 may expose the company to fines and civil or criminal prosecution and prevent the
5 company from defending itself or pursuing legal remedies to disputes.”³⁹

6
7 DRA requested additional information from PG&E that its management relied
8 upon which PG&E believes exempted it from maintaining easily accessible,
9 accurate, complete, and detailed gas transmission pipeline records in order to justify
10 additional funding for record maintenance. PG&E was not able to provide any
11 federal or state citations on gas transmission pipeline recordkeeping exemptions.
12

13 DRA asked:⁴⁰

14 PG&E states on page 5-3 that “The Commission is presently
15 investigating PG&E’s recordkeeping practices (I.11-02-016) to
16 ascertain if it has violated gas safety recordkeeping rules or other
17 applicable laws”. Provide copies of the specific citations in the
18 federal regulations that PG&E’s management relied upon which
19 PG&E believes exempted it from maintaining easily accessible,
20 accurate, complete, and detailed records relating to specific
21 information (i.e. installed pipe and associated as-built drawings,
22 alignment sheets, pipeline specifications, all design, construction,
23 inspection, testing, maintenance, and other related records, such

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recordkeeping for utilities. See 49 C.F.R. Section 192.517, 192.603 (b), 192.605(a) and (b)
(3), 192.917(b) and 192.947.

³⁹ PG&E’s Record Retention and Disposal Standards (Corporation Standard: GOV-7001S
Publication Date 10/01/2010, Rev 0) was provided to DRA by PG&E at a meeting on
October 27, 2011.

⁴⁰ DRA data request DRA-TLG-1, question 1-o. PG&E states in its Record Retention and
Disposal Standards (Corporation Standard: GOV-7001S Publication Date 10/01/2010, Rev
0) that “The Corporate Secretary’s office distributes the Record Retention and Disposal
standard to all officers of PG&E Corporation and its affiliates and subsidiaries in September
of each year and requires that each officer certify that his or her organization is in
compliance with the requirements of the standard.” DRA discovered at the meeting
between PG&E, CPD/Legal and its consultants, DRA, and PG&E on October 27, 2011 that
there is no internal follow-up/audit performed by PG&E to verify and determine that the “self
certifications” submitted in regards to its Record Retention and Disposal Standards are
accurate.

1 as system components, pipe segments, valves, fittings, weld
2 seams, etc.) on its pre-1970s gas transmission pipelines.
3

4 PG&E's response:

5 PG&E does not believe it is exempt from federal and state
6 recordkeeping requirements. PG&E recognizes it is obligated
7 under federal and state laws to maintain various types of
8 transmission records for the period of the time specified by law.
9 PG&E's guidance documents not only specify how various activities
10 are to be conducted, but also specify the record requirements and
11 retention period for each document created as a result of
12 engineering, operations, or maintenance activities. The hierarchy
13 of guidance documents is explained in Section C of Chapter 2A of
14 PG&E's June 20, 2011, filing in I.11-02-016, page 2A-3, "Overview
15 of PG&E's Gas Transmission Safety Record Maintenance and
16 Retention Policies".

17 Regulatory requirements have changed over time. The earliest
18 regulations have had record retention requirements ranging from
19 "life of asset" to "destroy at option". The evolution of regulations
20 governing gas transmission pipelines is chronicled in PG&E's
21 Chapter 1 "California and Federal Pipeline Safety Regulatory
22 History" in PG&E's June 20, 2011, filing I.11-02-016. Section C of
23 this document, "Industry, State and Federal Partial Exemptions for
24 Existing Pipelines" discusses the partial exemption or the non-
25 retroactive subparts of the federal code which was ultimately
26 incorporated by reference in CPUC General Order 112E.
27

28 PG&E acknowledges that it is not exempt and its response does not provide
29 justification for its failure to maintain complete and accurate records on the
30 specifications of its gas transmission pipelines.⁴¹ The maintenance of complete
31 and accurate records on PG&E's gas transmission pipelines should be included in

⁴¹ PG&E was not able to produce any records related to the design/material or construction specifications for the 1956 relocation project in San Bruno, however PG&E claimed that it believed that the project followed the American Society of Mechanical Engineers (ASME) standards code B31.1.8 1955 edition, *Gas Transmission and Distribution Piping Systems*. (see discussion on p.28 in NTSB report). Prior to 1961, there were no regulations in California governing natural gas pipeline safety. A voluntary national consensus standard in the ASME B31.1.8, 1955 edition called for hydrostatic pressure testing of newly constructed pipelines at 1.1-1.4 times the intended MAOP, depending on the class location. Based on the NTSB report (p.33) PG&E elected not to hydrostatically test Segment 180 of line 132. See DRA's detailed discussion, analysis and recommendations regarding hydrostatic testing and the American Standard Code for Pressure Piping in DRA Exhibit DRA-02.

1 its “gas distribution operations and maintenance work at currently mandated levels”
2 and should be a part of its “approved rates to cover normal, baseline operating
3 costs.”

4 In the Commission’s General Order 112 (*State of California Rules Governing*
5 *Design, Construction, Testing, Operation, and Maintenance of Gas Gathering,*
6 *Transmission and Distribution Piping Systems*), Chapter 5, Section 301 states: “The
7 responsibility for the maintenance of necessary records to establish that compliance
8 with these rules has been accomplished rests with the utility. Such records shall be
9 available for inspection at all times by the Commission or the Commission Staff.”
10 Section 302 states: “Specifications for material and equipment, installation, testing
11 and fabrication shall be maintained by the utility.” Section 303 states: “Plans
12 covering operating and maintenance procedures, including maximum actual
13 operating pressure to which the lines is intended to be subjected, shall be
14 maintained by the utility.”

15 General Order 112 demonstrates that recordkeeping is part of on-going and
16 routine maintenance activities. PG&E should have embedded costs in its historical
17 expenses to perform recordkeeping activities associated with its MAOP Records
18 Validation Project.

19 **2. MAOP Records Validation Forecast For Class 3 And Class 4** 20 **Pipeline Segments**

21 Part 1 of PG&E’s MAOP Records Validation project included a
22 comprehensive search of records for Class 3 and Class 4 pipeline segments and
23 HCA segments in Class 1 and Class 2 and location and scanning of all strength test
24 records and loading them into an electronic database to transfer later into PG&E’s
25 GIS system. Part 2 included compiling an electronic data set with specific pipeline
26 information so that PG&E’s Pipeline Features List (PFL) build team can utilize the
27 collected information to development its PFL in order to perform MAOP Validation
28 for HCA pipeline segments.⁴²

29
⁴²PG&E’s Direct Testimony at pp.5-8 and 5-9.

1 DRA discovered that PG&E’s request for funding for 2012 and 2013 to
2 address Part 3 of its MAOP Records Validation Project includes costs for Class 3
3 and Class 4 locations.⁴³ PG&E claimed that Class 3 and Class 4 locations were
4 included in Part 1 of this project and that it was **not** seeking recovery. PG&E states
5 “Part 1 was limited to Class 3 and 4 pipeline segments plus HCA segments in Class
6 1 and Class 2...PG&E does not seek cost recovery for this effort.”⁴⁴ With this
7 statement in mind, PG&E provides the following contradictory statements in its
8 testimony: “Part 3 of the project will focus first on pipelines that were not originally
9 identified as HCA pipelines, but are now identified as Class 3 and Class 4 following
10 PG&E’s system-wide class location study submitted to the CPUC on June 30, 2011.
11 That report explained that a number of miles of pipeline had changed in class
12 location.”⁴⁵ PG&E served its testimony on its PRIP on August 26, 2011, which is
13 two months after its June 30, 2011 “system-wide class location study” that it
14 submitted to the CPUC, and therefore PG&E had plenty of time to ensure that its
15 MAOP Records Validation Project forecast excluded costs for Class 3 and Class 4
16 locations which PG&E was urgently directed to address.

17 In PG&E’s report on the status of its Maximum Allowable Operating Pressure
18 Validation Project as of June 30, 2011 (dated July 11, 2011) PG&E states “As a
19 result of the class location verification review, 94 miles of pipelines that were not
20 HCA pipelines have now been identified as Class 3 and Class 4. PG&E will
21 prioritize gathering the necessary records for these segments to perform the

⁴³ A Class 1 location is any class location unit that has 10 or less buildings intended for human occupancy; A Class 2 location is any class location unit that has more than 10 but less than 46 buildings intended for human occupancy; A Class 3 location is any class location unit that has 46 or more buildings intended for human occupancy; or an area where the pipeline lies within 100 yards of a building that is occupied by 20 or more persons during normal use, a small, well-defined outside area that is occupied by 20 or more person during normal use, such as a playground, recreation area, outdoor theater, or other place of public assembly; A Class 4 location is any class location unit where buildings with 4 or more stories above ground are prevalent (CPUC GO 112-D dated March 1985).

⁴⁴ PG&E’s Direct Testimony at pp.5-8 and 5-9.

⁴⁵ PG&E’s Direct Testimony, p.5-12.

1 records-based MAOP validation”.⁴⁶ PG&E claims that it has reclassified a total of
2 282.6 miles of transmission pipeline as HCA from its prior designation as non-HCA
3 and has included costs of \$6.24 million in its MAOP Records Validation Project
4 forecast of \$107.1 million to address pre-1970 pipeline.⁴⁷ It is unreasonable for
5 ratepayers to fund PG&E’s MAOP Records Validation forecasts associated with the
6 misclassification⁴⁸ of its pipeline segments because PG&E failed to properly and
7 timely update the class designations.⁴⁹ Part 3 of PG&E’s MAOP Records Validation
8 project are the exact same activities that PG&E was ordered to perform by the NTSB
9 and the Commission⁵⁰ and it is unreasonable and inappropriate for ratepayers to
10 fund these costs.⁵¹
11
12
13
14
15

⁴⁶ PG&E’s status report to the Commission, p.3. In PG&E’s response to DRA data request DRA-TLG-2, question 1-b, PG&E states “As a result of the most recent class study for which PG&E submitted a report to the CPUC on June 30, 2011, 282.6 miles of transmission pipeline were reclassified as HCA from its prior designation as non-HCA”.

⁴⁷ PG&E’s response to DRA data request DRA-TLG-2, question 1-b.

⁴⁸ See DRA’s detailed discussion, analysis and recommendations regarding PG&E’s Class Location Study and PG&E’s misclassification of its pipeline segments in DRA Exhibit DRA-02.

⁴⁹ Regarding PG&E’s pipeline reclassification see platts Gas Daily “PG&E revises practices for classifying pipelines” (date January 19, 2012).

⁵⁰ PG&E states that “Parts one and two are required to meet CPUC directives” and that its Part three “involves the same process used for MAOP Validation of HCA pipeline segments without prior strength test (Part 2)...” (pp.5-8 and 5-12 in PG&E’s Direct Testimony).

⁵¹ PG&E was ordered by NTSB and the Commission to aggressively and diligently complete a comprehensive search for its natural gas transmission pipeline specifications, strength test records, and MAOP validation of HCA pipeline segments without prior strength test for Class 3 and Class 4 and HCAs in Class 1 and Class 2. The NTSB “further recommended that the standard for this search should be that all information used to calculate a pipeline’s MAOP should be traceable, verifiable, and complete” (pp,5-5, 5-6, and 5-8 in PG&E’s Direct Testimony).

1 **3. MAOP Records Validation Project Forecast Estimates**

2 PG&E’s use of a bottoms-up method⁵² to forecast its MAOP Records
3 Validation project is unreliable⁵³ and the line item estimates that were calculated
4 utilizing this method cannot be substantiated. PG&E claims that its estimates for this
5 project are supported because they were based on actual cost incurred in 2011. If
6 this is true, PG&E’s use of a bottoms-up method, a method that ignores or excludes
7 historical recorded costs in the calculated forecast estimates, is misplaced and the
8 forecast most likely includes duplicative start up costs such as development, testing,
9 implementation, labor, consulting, software and hardware, etc. PG&E states its
10 “approach taken to form the assumptions⁵⁴ that ultimately supported the cost
11 estimates for the MAOP Validation project were derived primarily from actual costs
12 incurred in the first 7 months of 2011 on this project.”⁵⁵

13 PG&E’s assumptions, based on productivity expectations that were utilized in
14 the calculation of its MAOP forecast, may have produced excessive cost estimates.
15 PG&E’s testimony does not discuss how costs will be adjusted downward and
16 reported if its “productivity expectations” and “workstreams” are not met. In
17 response to a data request, PG&E states: “These assumptions are based on the
18 team’s experience during the first quarter 2011 activities, and discussions with key
19 vendors about productivity expectations, duration etc. The overall principle
20 supporting the forecast assumes a resource driven model, in the form of a
21 production process with set workstreams that have to achieve certain milestones
22 every month. The various workstreams are dependent on each other for successful

⁵² PG&E states “The financial forecast for the entire effort was prepared using a bottoms-up approach, supported by various assumptions...” PG&E’s response to DRA data request DRA-TLG-1, question 1-i. PG&E provided the methodology it utilized to calculate the forecast for its MAOP Records Validation Project and its GTAM Project in its response to DRA data request DRA-TLG-1, question 1-h.

⁵³ The Commission has found that forecasts that were calculated utilizing a budget-based or bottoms-up method were unreasonable and less reliable than forecasts that were based on historical spending data (D.04-07-022 ppp.22-23, D.09-03-025 p.78 and 92).

⁵⁴ PG&E’s response to DRA data request DRA-TLG-1, question 1-h.

⁵⁵ PG&E’s response to DRA data request DRA-TLG-1, question 1-j.

1 completion, and these dependencies are built into the assumptions to calculate the
2 cost estimate.”

3 PG&E’s workpapers provided to support its MAOP Records Validation project
4 consisted of eleven pages of spreadsheets that failed to identify the basis for the
5 numbers, to demonstrate how each forecast for the individual line item was
6 calculated or to show the specific costs included within each line item (i.e., internal
7 labor, contractor expense, materials, other). These unidentified line item cost
8 estimates were included in each cost category assigned to an order number (i.e.,
9 Document Prep, PFL Build, Excavations, PMO, ISTS, and Projected related
10 overhead) for 2011 through 2013.

11
12 Given the limited information and support for the forecast provided by PG&E
13 in its workpapers and because PG&E claimed that costs “were derived primarily
14 from actual costs incurred in the first 7 months of 2011,” DRA requested specific
15 detail on PG&E’s actual 2011 recorded costs. DRA requested the 2011 recorded
16 costs in order to review and evaluate the reasonableness of the 2011 expenses and
17 to ensure that there were no duplicative charges or inappropriate or below-the-line
18 costs being carried forward into PG&E’s forecast calculations. Based on DRA’s
19 review of PG&E’s general discussion provided as support for Document Preparation
20 (estimate of \$54.9 million) and PFL Build and MAOP Calculation (estimate of \$66.0
21 million) in its testimony, there appears to be duplication of efforts.

22 The costs for this duplication of efforts is included in the forecast and is
23 associated with the activities that PG&E was ordered to do (Part 1 of PG&E’s project
24 included searching, locating, scanning and loading records into an “interim electronic
25 database”, and Part 2 included developing its Pipeline Features List (PFL)) which
26 are associated with excessive costs that cannot be substantiated. It is likely that the
27 duplicative costs are associated with retrieving, collecting, scanning, compiling,
28 inputting, and loading gas transmission data into its interim electronic database,

1 existing and “enhanced” GIS system, building PFL folders “and” building PFL lists
2 and conducting “several rounds of quality control and quality assurance”, etc.⁵⁶

3 DRA requested the specific detail on PG&E’s 2011 costs so that it could
4 independently calculate and verify PG&E’s 2011 cost estimates shown in PG&E’s
5 workpapers. DRA was not able to determine the accuracy or reasonableness of the
6 specific line item costs for PG&E’s 2011 recorded MAOP Records Validation project
7 expenses or analyze and verify the costs because PG&E did not provide the
8 requested information.

9 DRA requested that PG&E provide a detailed breakdown of its actual 2011
10 cost incurred as of September 23, 2011 and the associated accounts where PG&E
11 recorded the costs. DRA also requested that PG&E’s response include “all verifiable
12 and traceable documentation to substantiate 1) the accuracy of each cost
13 incurred.”⁵⁷ PG&E should not have experienced any difficulty in providing verifiable
14 and traceable detail to substantiate its 2011 recorded costs. In its response PG&E
15 provided a document that “describes the process” it uses to “ensure accuracy of
16 spend for MAOP Validation,” along with an Excel spreadsheet produced by its SAP
17 system that lacked specific detail on the recorded costs and included unverifiable
18 lump sum line item totals.⁵⁸ PG&E’s response is insufficient and incomplete. It

⁵⁶ See PG&E’s discussion on pp.5-8 through 5-15 in its Direct Testimony.

⁵⁷ PG&E’s response to DRA data request DRA-TLG-1, question 1-a. On November 15, 2011 DRA scheduled a meeting at PG&E’s office in order to follow up on data request responses provided by PG&E that were incomplete and insufficient. Regarding PG&E’s responses to question 1-a cited above, PG&E maintained that its original response, which DRA explained in detail at the meeting was insufficient and incomplete, was “already answered,” and PG&E stated further in that meeting that DRA’s request for 2011 data to verify the accuracy of PG&E’s 2011 cost estimates which PG&E claims it utilized as a basis to support its estimates included in its 2012 and 2013 forecast, was “**burdensome**” (emphasis added).

⁵⁸ DRA requested that PG&E provide a detailed and itemized listing showing the derivation of the individual line item estimates included in the total forecast for labor and non labor expenses, and capital expenditures. DRA also requested that PG&E provide the documentation that explains in detail and identifies specifically all the costs included in the line item calculation for each category: Document Preparation, PFL Build, Excavations, Project Management, ISTS, Project Overheads which totals to the line item forecast for Internal Labor, Contract Expense, Materials, Other as shown in the workpapers on pages WP 5-2 through WP 5-10. In PG&E’s response to DRA data request DRA-TLG-1, questions

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1 does not demonstrate that its 2011 recorded costs were accurate and reasonable, or
2 support the use of these costs in the calculation of its 2012 and 2013 forecast.
3 Accordingly, its request should be denied.

4
5 DRA found PG&E's 2011 recorded costs included in its spreadsheet that was
6 produced by its SAP system to be unsupported and unreliable. DRA encountered a
7 similar problem with unverifiable information provided by PG&E's SAP system in
8 another PG&E filing.⁵⁹ During DRA's review and analysis of PG&E's 2007 GRC on
9 PG&E's Administrative and General Expenses (A&G) (A.05-12-002 and D.07-03-
10 044) DRA discovered that PG&E's SAP system was a database dump that
11 combined costs for A&G, capital expenditures with operation and maintenance,
12 below-the-line and PG&E Corporation expenses which made it difficult for DRA to tie
13 back and trace historical data and compare it to specific forecasted expenses.

14 PG&E's individual line item forecasts shown in Table 1-3 also include
15 inappropriate costs that ratepayers should not be required to fund. For example,
16 PG&E includes a forecast for non-destructive excavations of \$7.5 million. These
17 excavations will be performed "where records are either not available or are
18 inconclusive".⁶⁰ PG&E's records should be accurate, "available" and conclusive and
19 it is inappropriate to burden ratepayers with the cost of fixing PG&E's recordkeeping
20 mistakes. Based on information DRA reviewed, it appears that PG&E is double
21 charging ratepayers for the costs to excavate its pipes. Apparently some of the
22 errors in PG&E's GIS database could have been corrected with information found
23 during external corrosion direct assessment (ECDA). NTSB states the following:

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1-i and 1-k, PG&E refers DRA to its Attachment 6 as additional support for its MAOP Records Validation project forecast. This attachment includes several spreadsheets, similar to its workpapers with lump sum line item totals and lack identifiable detail on the costs that make up the line item forecast. The spreadsheets in this attachment are also difficult to follow. DRA was not able to independently calculate any of the numbers included in the attachment.

⁵⁹ PG&E's 2007 GRC A.05-12-002, D.07-03-044.

⁶⁰ PG&E discusses non-destructive excavations on p.5-15 of its Direct Testimony.

1 “Many of these missing data and obvious errors could have been identified and been
2 corrected by exposing the pipe. In fact, many of the pipe segments for which
3 records had missing, assumed, or erroneous data had previously been exposed in
4 connection with ECDA excavations as part of the integrity management
5 program...All of these ECDA digs predated the records that contained the missing,
6 assumed, or erroneous values”.⁶¹ PG&E missed another opportunity to correct its
7 records.

8 PG&E’s labor forecast included in its \$107.1 million request is excessive and
9 includes duplicative employee labor⁶² and benefits that have already been
10 authorized in its Administrative and General (A&G) expenses in its 2011 GRC.⁶³
11 PG&E’s testimony and workpapers do not demonstrate the calculated breakdown of
12 labor costs or explain how PG&E’s historical embedded labor costs for existing
13 employees and labor costs that were authorized in PG&E’s 2011 GRC and GT&S
14 rate case for additional staffing were incorporated into its forecast for its MAOP
15 Records Validation Project forecast. PG&E provided neither verifiable support to
16 demonstrate that it is not double counting labor costs nor information that shows

⁶¹ NTSB Natural Gas Transmission Pipeline Rupture and Fire report on San Bruno, p.108.

⁶² In PG&E’s report on the status of its Maximum Allowable Operating Pressure Validation Project as of June 30, 2011 (dated July 11, 2011), PG&E reported to the Commission that it had over 300 employees, consultants, and support staff working on this project to meet the deadlines set in its Compliance Plan to address its MAOP validation efforts (see p.8 in PG&E’s status report). It appears that PG&E has included costs for these 300 employees in its MAOP Records Validation project forecast. PG&E’s Document Preparation forecast of \$54.9 million includes labor costs for 98 PG&E employees and “contract resources”, its forecast of \$66.0 million for its PFL Build and MAOP Calculation includes labor costs for 170 PG&E and “contract resources”, and its forecast of \$20.6 million for its Project Management includes the costs for 31 PG&E employees and Consulting resources (see discussion on ppp.5-14 and 5-15 in PG&E’s Direct Testimony). PG&E’s forecast of \$10 million for its Information System Technology Service (ISTS) application and infrastructure support also includes unidentifiable labor costs.

⁶³ PG&E states for its “MAOP Project, many PG&E employee costs were forecasted using historical cost information. The historical cost information includes all indirect and overhead charges. For workgroups where costs do not settle directly to the MAOP project a standard rate was assumed. The largest workgroup where a standard rate was assumed is IT. For IT a standard rate of \$135 per hour was used...” PG&E’s response to DRA data request DRA-PZS8-2. PG&E provided the 2011 GT&S rate case and 2011 GRC Labor Burden Rates (benefit burden, payroll tax burden, and capital A&G) it used in the calculation of its

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1 specifically how much of the labor costs forecasted is for existing employees who
2 have been reassigned to this project and how much of the costs is for newly hired
3 employees. PG&E's testimony also does not demonstrate how it incorporated
4 savings from employee retirements into its forecast. PG&E's request lacks
5 adequate detail and support on its labor costs, is not justified, and should be
6 denied.⁶⁴

7 PG&E's testimony in this proceeding fails to include a section on A&G
8 expenses to show the relationship between its requests in this filing and the GRC
9 funding and clearly demonstrate the incorporation of the authorized employee labor
10 and benefits. PG&E claims it needs to hire additional staff for its MAOP Records
11 Validation project, and it has included additional costs for employee labor and
12 benefits. Between every GRC, PG&E has employees that retire and employees that
13 are terminated, as well as employees that are hired and employees that are laid off
14 and PG&E's authorized employee labor and benefits included in its A&G funding is
15 not adjusted based on these activities. For example, based on published news
16 reports, DRA discovered that PG&E recently laid off several employees⁶⁵ and the
17 funding for these positions was requested and authorized in PG&E's 2011 GRC, and
18 PG&E's authorized 2011 GRC funding will not be adjusted downward. PG&E has
19 embedded funding that it can allocate or redirect as necessary to address its staffing
20 needs. Therefore, no additional funding is warranted.

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forecast in this response.

⁶⁴ DRA requested the detailed breakdown and supporting documentation for the actual hourly rates for each position included in PG&E's forecast for its MAOP Records Validation project excluding overhead, employee benefits, indirect costs, etc. The labor cost information was requested based on DRA's concerns that PG&E's labor forecast appeared to be excessive. DRA also requested that PG&E show the detail for the calculation of overhead, employee benefits, and indirect costs separately. PG&E did not provide detail on the calculation of its overhead, employee benefits, and indirect costs separately, instead these costs were shown lumped together. For the hourly rates for its MAOP Records Validation project, PG&E claimed that it utilized actual labor costs for June 2011 and "cost was assumed for each subsequent month with a 2.5% escalation adjustment starting in April 2012. PG&E's response to DRA data request DRA-TLG-2, question 1-b.

⁶⁵ SF Chronicle "PG&E's post-blast reorganization claims 225 jobs" (dated November 11, 2011).

1 One example of a duplicative employee benefit that was previously
2 addressed and authorized is pension expenses. In CPUC D.09-09-020, the
3 Commission approved an all-party settlement agreement on pension cost recovery.
4 The decision adopted a revenue requirement for 2011, 2012, and 2013 continuing in
5 subsequent years until a new GRC. The authorized contribution level has been
6 allocated to the various PG&E utility functions and is being fully recovered through
7 the currently authorized rates. The inclusion of pensions within A&G expenses or
8 overheads is a clear violation of D.09-09-020.

9
10 The Commission should reject increased ratepayer funding for activities that
11 already have costs embedded in PG&E's historical expenses. PG&E's ratepayers
12 should not be forced to fund these costs especially after a review and analysis of
13 PG&E's poor recordkeeping practices over the last 30 years. PG&E should continue
14 this extremely urgent and important work relating to its MAOP Records Validation
15 Project to ensure that all its recordkeeping deficiencies are eliminated, and any
16 incremental expenses incurred over funding authorized in its 2011 GRC and GT&S
17 rate case should be at its shareholder's expense.⁶⁶

18 **C. GTAM Project**

19 PG&E forecasts \$115.7 million for its GTAM Project expenses and capital
20 expenditures for 2012 through 2014: \$48.1 million in 2012, \$34.7 million in 2013,
21 and \$32.9 million in 2014.⁶⁷ PG&E utilized a bottoms-up method to calculate its
22 forecast.⁶⁸ PG&E's request for \$115.7 million is to upgrade its existing Information

⁶⁶ See DRA's detailed discussion, analysis and recommendations regarding the adopted Settlement Agreements in PG&E's 2011 GRC (D.11-05-018) and 2011 GT&S rate case (D.11-04-031) in DRA Exhibit DRA-02.

⁶⁷ Chapter 5, p.5-27 in PG&E's Direct Testimony on PG&E's Pipeline Safety Enhancement Plan (Implementation Plan).

⁶⁸ DRA was informed that PG&E utilized a bottoms-up method to forecast its GTAM Project at a meeting between DRA and PG&E on November 15, 2011. PG&E provided the methodology it utilized to calculate the forecast for its MAOP Records Validation Project and its GTAM Project in its response to DRA data request DRA-TLG-1, question 1-h.

1 Technology (IT) Systems.⁶⁹ PG&E states its “GTAM effort involves the
2 consolidation of various important pipeline records into two primary electronic
3 systems (SAP and PG&E’s Geographic Information System), which will enable
4 PG&E to integrate pipeline records going forward.”⁷⁰ DRA recommends zero
5 ratepayer funding for PG&E’s GTAM Project. PG&E’s request for ratepayer funding
6 of \$115.7 million to upgrade its existing IT systems is unreasonable and the
7 individual line item estimates included in its forecast are not justified.⁷¹

8
9 PG&E’s RO Model Implementation Plan Expense Workpaper Table where
10 DRA is supposed to input its adjustments for PG&E’s GTAM Project includes several
11 order numbers and unidentifiable line item forecasts that total to amounts shown in
12 PG&E’s workpapers on its GTAM Project (see PG&E’s workpapers p.WP- 5-12).
13 PG&E’s testimony on its GTAM Project does not provide any discussion on the order
14 numbers as shown in its RO Model or on the specific forecast estimates for the
15 individual line items shown in the RO Model. Based on the lack of information, it is
16 not possible for DRA to make adjustments or to provide a discussion on the
17 individual line items shown in PG&E’s RO Model for the GTAM Project.

18
19 Table 1-4 shows PG&E’s proposed forecast for its GTAM capital project and
20 expenses and DRA’s recommendations.⁷² Table 1-5 shows PG&E’s individual line
21 item cost assumptions.

⁶⁹ Id., p. 5-2.

⁷⁰ PG&E’s testimony p.1-9. PG&E’s GTAM Project has four phases (Phase 0 through Phase 3) and the implementation of the four phases is supposed to take approximately 3.5 years (p.5-21).

⁷¹ An example of PG&E’s use of non-specific language in its attempt to support its forecast estimates for its GTAM Project and justify additional funding is found in the following PG&E statement: “Additionally, PG&E forecasts costs for other technology-specific work identified by field personnel, focused program equipment replacements, and carry-over from multi-year projects” (See p.5-26 in PG&E’s Direct Testimony).

⁷² PG&E’s Table 5-4 on p.5-27 in its Direct Testimony. PG&E states that 2011 expenses and capital related costs will be funded by its shareholders.

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**Table 1-4
PG&E's GTAM Project Forecast
(\$ in Millions)**

	2011	2012	2013	2014	Total	DRA
Capital	\$7.4	\$42.3	\$27.2	\$25.7	\$102.6	\$0
Expense	0.5	5.8	7.5	7.2	21.0	0
Total	\$7.9	\$48.1	\$34.7	\$32.9	\$123.6	\$0

5
6
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8

**Table 1-5
PG&E's GTAM Project Cost Assumptions
(\$ in Millions)**

Order Number	Activity	PG&E Forecast
Labor	Change Management/Training	\$ 17.0
Labor	Roadmap/Preliminary Design	3.8
Labor	Software Development, Testing, Deployment	35.6
Labor	Data Conversion/Prep/Validation	32.9
Labor	Project Management	8.0
Hardware		16.2
Software		10.1
Total		\$123.6

9

1. GTAM Forecast And Duplicative Costs

10

11 PG&E's GTAM forecast inappropriately includes costs for duplication of work
 12 activities associated with migrating, consolidating and populating data to its interim
 13 electronic database, existing GIS system, enhanced GIS system and its SAP
 14 database. For example, in regards to its Pipeline Maintenance (PLM) database that
 15 is supposed to be migrated to its SAP system as part of its GTAM Project, PG&E
 16 states: "Originally migrated to SAP in 2005, but not maintained because users
 17 continued to use PLM and not SAP."⁷³

18

19 CPSD similarly found in its report on PG&E's Pipeline Safety Enhancement
 20 Plan that "to some extent the expense associated with originally populating the GIS
 will need to be duplicated. Since PG&E's existing GIS and Pipeline Records

⁷³ Included in PG&E's response to DRA data request DRA-TLG-1, question 4-e, Attachment 7 "Current State: Key GT Systems and Descriptions." In PG&E's response to DRA data request DRA-TLG-2, question 1-c, PG&E provided a spreadsheet that includes costs for migrating PLM data to its SAP and GIS system (see PG&E's Attachment 3 of the response).

1 Program cannot be relied upon as a comprehensive and accurate source of gas
2 transmission information, cost concessions in the Pipeline Records Integration
3 Program should be considered to compensate for duplicative efforts.”⁷⁴

4 The excessive costs for duplicating work unnecessarily increases costs for
5 ratepayers and therefore should be denied

7 2. GTAM Forecasting Method And Embedded Historical IT 8 Costs

9 PG&E states that its “process used to derive GTAM Project forecast is based
10 on high level business requirements...”⁷⁵ PG&E’s forecast method ignores
11 historical embedded costs associated with the upgrades, revisions, enhancements,
12 database consolidations, and on-going operation and maintenance of its existing
13 database systems which provides the foundational infrastructure that its GTAM
14 Project relies upon. PG&E’s forecasting method also fails to show the relationship
15 between and the incorporation of embedded costs in its forecast.

16
17 In examining the relationship between embedded historical costs and
18 forecasted expenses for the same or similar activities in another case, the
19 Commission has stated:

20 SCE’s forecast also includes a \$4.812 million (constant 2006\$)
21 increase for insulator replacement as part of its Transmission Life
22 Extension Program. SCE claims that the increase represents the
23 cost of materials and the use of contract crews to supplement
24 SCE’s crews for insulator and hardware replacements. DRA claims
25 historical expenses have embedded costs for insulator
26 replacements. According to SCE, some of the circuits it will be
27 replacing are over 90 years old and many of the insulators on its
28 system have exceeded their life expectancies. While these types of
29 programs may be a cost-effective way to maintain the integrity of
30 the system and slow the deterioration of capital assets, SCE has
31 not sufficiently addressed the relationship of these programs to
32 costs embedded in historical data. Accordingly, SCE’s request for

⁷⁴ CPSD’s report on PG&E’s Pipeline Safety Enhancement Plan p.13.

⁷⁵ PG&E’s response to DRA data request DRA-TLG-1, question 4-b.

1 \$4.812 million to increase its insulator replacement as part of its
2 Life Extension Program is denied.⁷⁶
3

4 DRA is troubled by PG&E's apparent disregard for acknowledging the
5 importance of its embedded costs included in its historical expenses which should
6 have been considered and incorporated into its GTAM Project forecast. PG&E's
7 failure to recognize and incorporate historical embedded costs directly related to
8 existing electronic information management systems produces an excessive cost
9 forecast which is burdensome to ratepayers and its request should be denied.

10 PG&E claims that its entire GTAM Project forecast "is incremental to PG&E
11 requests in its 2011 General Rate Case (GRC), Application 09-12-020, and 2011
12 Gas Transmission and Storage (GT&S) Rate Case, Application 09-09-013."⁷⁷ DRA
13 disagrees. PG&E is ignoring the authorized funding it received in its 2011 GRC to
14 address GIS-related and other database consolidation projects, and it fails to
15 acknowledge embedded historical costs. For this reason, PG&E's "entire" GTAM
16 project forecast should not be considered incremental to its requests made in its
17 2011 GRC and 2011 GT&S rate case.

18 3. GTAM Related IT Projects And GRC Authorized Funding

19 PG&E has requested and received funding in its 2003, 2007,⁷⁸ and 2011
20 GRCs⁷⁹ to "consolidate," upgrade and enhance its "existing" Information Technology
21 Systems and therefore it has historical embedded costs from these completed
22 projects that can be utilized and reallocated to address its proposed GTAM
23 consolidation activities. Database system upgrades, enhancements to PG&E's core
24 systems (GIS and SAP database systems), and computer and laptop upgrades are

⁷⁶ D.09-03-025, p.72.

⁷⁷ PG&E's Direct Testimony, p.5-30.

⁷⁸ PG&E discusses the projects it requested funding for in its 2003 and 2007 GRCs to address consolidation and integration activities in its response to DRA data request DRA-TLG-1, question 4-i.

⁷⁹ PG&E discusses the projects it requested funding for in its 2011 GRC and 2011 GT&S rate case to address database enhancements to existing systems in its response to DRA

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1 part of on-going and routine operation and maintenance activities and funding is
2 requested and authorized in PG&E's GRC.

3
4 PG&E states, "In the case of the 2011 GRC, PG&E requested funding to
5 maintain and operate existing systems, plus funding for certain enterprise
6 enhancements."⁸⁰ PG&E also requested funding in its 2011 GRC to address
7 computer and laptop upgrades for its field force. PG&E's GTAM Project forecast,
8 includes \$16.2 million for Hardware, including costs for 800 mobile laptops, and
9 \$10.1 million for "software licenses for existing software packages, such as
10 SAP..."⁸¹ PG&E's request is unreasonable because it does not consider past
11 funding for similar software and hardware. For example, in PG&E's 2011 GRC,
12 PG&E's IT Business Unit requested \$4 million to implement mobile hand-held
13 devices and requested an additional \$11.6 million to upgrade hand-held computers
14 for PG&E's field force.⁸² DRA requested additional information from PG&E on its
15 past consolidation projects that it received funding for in its GRCs.

16
17 DRA asked:⁸³

18 PG&E states on page 5-19 that it "has in place foundational
19 technology infrastructure to manage its gas transmission system
20 data". PG&E states further on page 5-20 that its GTAM project will
21 "Maintain reliable information by consolidating the information and
22 functionality of the different gas transmission systems into SAP and
23 GIS, PG&E's core enterprise systems (the Core Systems)". PG&E
24 has had several GRCs in the last 10 years in which it requested
25 and was authorized funding to address its maintenance activities.
26 Please provide all documentation that explains in detail and

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data request DRA-TLG-1, question 4-p and DRA-PZS8-2.

⁸⁰ PG&E's Direct Testimony, p.5-30.

⁸¹ PG&E's Direct Testimony, pp.5-28 and 5-29.

⁸² PG&E's IT Business Unit forecast in the 2011 GRC for the hand-held computers and hand-held devices, as well as other IT related requests, was discussed in its IT Exhibit (PG&E-7) Chapter 2.

⁸³ DRA data request DRA-TLG-1, question 4-i.

1 demonstrates fully why PG&E's management did not consider
2 consolidation of "PG&E's core enterprise systems" as an important
3 element in order to accurately, effectively and efficiently maintain its
4 gas transmission pipelines prior to September 9, 2010.
5

6 PG&E's response:

7 PG&E does consider consolidation of PG&E's core enterprise
8 information technology (IT) systems as an important element in
9 order to accurately, effectively and efficiently maintain its gas
10 transmission pipeline system and did address this issue prior to
11 September 9, 2010. In several instances during the past 10 years,
12 PG&E has addressed the implementation, maintenance and
13 upgrade of core enterprise IT systems in its General Rate Cases
14 (GRCs). The GRCs includes costs for common business systems,
15 though they do not typically address costs specific to the Gas
16 Transmission business as those are considered in the GT&S Rate
17 Cases. Examples of core enterprise systems addressed in the
18 GRCs include GIS (Geographic Information System) – PG&E's
19 electronic mapping tool), Workforce Management and SAP.
20 Examples of the core systems addressed in the GT&S Rate Cases
21 include Gas Transmission SCADA (Supervisory Control and Data
22 Acquisition) and INSIDetracc (PG&E's tool for transaction
23 documentation, gas scheduling, and gas accounting). PG&E's core
24 enterprise systems play a very important role in effectively and
25 efficiently maintaining its gas transmission pipeline system.
26 Because it is such an important consideration, PG&E has
27 consistently updated, consolidated and upgraded its core
28 information management systems to help PG&E maintain a safe
29 and reliable gas pipeline system...
30

31 PG&E's response demonstrates that it has requested and received funding in
32 past GRCs and GT&S rate cases for various database consolidation projects, yet
33 here it fails to consider and incorporate these historical costs into its GTAM forecast.
34 Instead, PG&E proposes to build "a linear event-based GIS data model"⁸⁴ from the
35 ground up, which unnecessarily increases costs for ratepayers.⁸⁵ In PG&E's 2011

⁸⁴ PG&E's Direct Testimony, p.5-24.

⁸⁵ PG&E discusses the activities included in the four phases of its GTAM Project on pp.5-24 through 5-26 of its Direct Testimony. PG&E's request includes funding for the deployment of a new mobile platform (Ventyx 9.1). PG&E requested funding in its 2011 GRC for hardware and application development investment for the Ventyx 8.1 mobile platform, these
(continued on next page)

1 GRC, PG&E requested funding for re-initiating and renaming its Geographic
2 Information System/Automated Mapping and Facilities Management (AM/FM)
3 project. This project involved the deployment of foundational GIS software and
4 infrastructure pertaining to its Enterprise GIS – Ventyx 8.1 and its ArcGIS version
5 2.0. PG&E’s Non-Leak Information System (NLIS) was implemented/installed in
6 2010 and its Integrated Gas Inspection System (IGIS) was upgraded in 2008.⁸⁶
7 These are just a few examples of GIS-related projects and software upgrades that
8 PG&E completed.

9 PG&E’s testimony, workpapers, and data responses do not provide a detailed
10 breakdown of previously authorized funding or demonstrate historical recorded costs
11 incurred for various IT consolidation projects related to gas transmission. Nor is this
12 information provided for each of the existing database systems that PG&E proposes
13 to consolidate, streamline, or eliminate, making it impossible to evaluate and
14 compare recorded and forecasted expenses.

15 PG&E’s workpapers provided to support its GTAM Project consisted of ten
16 pages of spreadsheets that failed to identify the basis for each of the numbers
17 included in the forecast, demonstrate how each forecast for the individual line item
18 was calculated or show the specific costs included within each line item (i.e., Labor –
19 Change Management/Training, Labor – Roadmap/Preliminary Design, Labor –
20 Software Development, Testing, Deployment, Labor- Data
21 Conversion/Prep,/Validation, Labor – Project Management, Hardware, and
22 Software).⁸⁷

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costs are still embedded in PG&E’s historical expenses for this completed project. PG&E
response to DRA data request DRA-TLG-01, question 4-p.

⁸⁶ PG&E responses to DRA data requests DRA-TLG-01, question 4-p, DRA-PZS8-2, and
DRA-TLG-01, question 4-g.

⁸⁷ DRA requested specific detail on the derivation of the individual labor and non-labor
estimates included in PG&E’s GTAM forecast in DRA data request DRA-TLG-1, questions
4-a, 4-b, and 4-c. PG&E did not provide the information as requested. In response PG&E
provided several spreadsheets that included forecast estimates based on an Excel filtering
functionality which is less reliable when compared to a forecast based on historical spending
levels. PG&E stated in the response that “the schedule is a concept estimate, the work in
the schedule is described in Phases, with each Phase expected to have multiple

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1 Based on the limited amount of information and support for the forecast
2 provided by PG&E in its workpapers, DRA requested additional information. DRA
3 requested the recorded historical labor, non-labor and capital costs incurred
4 between 1996 and 2011 (September 23, 2011) and authorized amounts in the past
5 four GRCs and GT&S rates cases associated with the operation and maintenance of
6 PG&E's existing database systems⁸⁸ identified in its testimony⁸⁹ relating specifically
7 to software and hardware, development, implementation, demonstration, pilots, staff
8 training, technical writers, mobile computers for gas transmission field staff, GIS, gas
9 mapping, paper document conversion to electronic systems, SAP, etc.⁹⁰

10
11 DRA requested this specific historical information so that it could review and
12 analyze the amount of embedded costs associated with IT upgrades and database
13 consolidation projects related to gas transmission and compare it to PG&E's GTAM
14 forecast.⁹¹ PG&E was not able to provide the requested information. In PG&E's
15 response (an example of the data provided is shown below in Table 1-6) it provided
16 a spreadsheet for the years 2000 through 2011 that lacked any specific or
17 identifiable detail on the operations and maintenance costs of the database

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deliverables..."

⁸⁸On November 15, 2011 DRA met with PG&E to follow-up on data request responses provided by PG&E (DRA-TLG-1) that were incomplete and insufficient. During that meeting DRA again requested recorded historical cost information on PG&E's existing database systems discussed in its testimony that were going to be eliminated, streamlined, retired, consolidated, etc. DRA also requested the calculated and incorporated ratepayer benefits and savings that would be associated with the existing database systems after the consolidation and implementation of its GTAM Project. PG&E was not able to provide any of the requested information and referred DRA back to its original responses.

⁸⁹ PG&E's existing database systems are discussed on pp.5-19 and 5-20 of PG&E's Direct Testimony and in its response to DRA data request DRA-TLG-1, question 4-g.

⁹⁰ DRA data request DRA-TLG-1, question 4-g.

⁹¹ DRA also requested the recorded costs for PG&E's 2011 GTAM expenses shown in its Direct Testimony and workpapers and requested that the response include all verifiable and traceable documentation to substantiate the accuracy of each cost incurred. PG&E did not provide the requested information (DRA data request DRA-TLG-1, question 4-d).

1 programs it discussed in its testimony.⁹² PG&E stated in the response that “PG&E
2 cannot breakdown the imputed adopted and recorded amounts between the GRC
3 and GT&S rate cases because: 1) prior to 2008, the GT&S rate cases did not set
4 forth an explicit request for IT; 2) all funding requests for common IT costs are
5 included in the GRC; and 3) common capital and expense recorded costs are not
6 tracked in SAP by line of business or by rate case.”⁹³ PG&E’s existing gas
7 transmission database systems discussed in its testimony in this proceeding that are
8 incurring labor and non-labor costs and will be streamlined, consolidated or
9 eliminated include the following: “Pipeline Maintenance (PLM), Project Status and
10 Reporting System (PSRS), Gas Facility Maintenance (Gas FM), Integrated Gas
11 Inspection System (IGIS), Non-Leak Information System (NLIS), GIS, SAP and Gas
12 Planning tools.”⁹⁴

13

14 Table 1-6 below shows PG&E’s IT imputed adopted amounts and recorded
15 costs for GRC and GT&S Lines of Business for the period 2006 through 2011.⁹⁵
16 Based on the information shown in Table 1-6, PG&E should be able to perform its
17 GTAM Project activities at its current funding levels authorized in the 2011 GRC and
18 2011 GT&S rate case. PG&E’s recorded expenses for the years 2007 through 2011
19 are less than PG&E’s imputed adopted amounts. PG&E’s recorded IT expenses
20 have fluctuated slightly between 2008 and 2011 although these costs include IT
21 expenses associated with support for the San Bruno explosion incurred in 2010 and
22 2011 and 2011 costs incurred for its GTAM and MAOP Records Validation Projects.

23

24

⁹² PG&E provided its Attachment 9 in response to DRA data request DRA-TLG-1, question 4-g, which was insufficient and incomplete.

⁹³ PG&E’s response to DRA data request DRA-TLG-1, question 4-g. PG&E states in the response that the information provided “represents PG&E’s best estimate of costs by project, but may not necessarily include all associated IT costs.”

⁹⁴ PG&E’s Direct Testimony, pp.5-19 and 5-20.

⁹⁵ PG&E’s response to DRA data request DRA-TLG-1, question 4-g, Attachment 09 (2011 costs are through September 30, 2011).

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Table 1-6
PG&E's Imputed Adopted Amounts and Recorded Costs for Information
Technology GRC and GT&S Lines of Business
(Millions)

Capital	2006	2007	2008	2009	2010	2011
Imputed Adopted	\$ 39.2	\$ 77.2	\$ 55.2	\$ 54.1	\$ 55.1	\$204.5
Recorded Cost	261.6	239.5	164.8	178.3	258.0	179.3
Expense						
Imputed Adopted	\$144.7	\$221.1	\$225.1	\$225.3	\$225.2	\$260.9
Recorded Cost						
Labor	\$ 55.1	\$ 64.7	\$ 92.1	\$ 81.2	\$ 72.2	\$128.1
Non-Labor	108.9	125.2	125.8	119.6	141.2	79.3
Total Recorded	\$164.0	\$189.9	\$217.9	\$200.8	\$213.4	\$207.4

5 PG&E's response, as shown in Table 1-6 above, also failed to provide cost
6 information DRA requested relating specifically to software and hardware,
7 development, implementation, demonstration, pilots, staff training, technical writers,
8 mobile computers for gas transmission field staff, GIS, gas mapping, paper
9 document conversion, to electronic systems, SAP, etc. PG&E should not have
10 experienced any difficulty with providing historical recorded IT costs relating to its
11 gas transmission activities to justify its forecast, when it is requesting ratepayer
12 funding of \$115.7 million for similar activities.

13

14 As mentioned above in the discussion on PG&E's MAOP Records Validation
15 Project, DRA is likewise concerned that PG&E's labor forecast for its GTAM Project
16 included in the \$115.7 million is excessive and includes duplicative employee labor
17 and benefits that were already authorized in its Administrative and General (A&G)
18 expenses in its 2011 GRC.⁹⁶ PG&E's testimony and workpapers do not

⁹⁶ PG&E states for its "MAOP Project, many PG&E employee costs were forecasted using historical cost information. The historical cost information includes all indirect and overhead charges. For workgroups where costs do not settle directly to the MAOP project a standard rate was assumed. The largest workgroup where a standard rate was assumed is IT. For IT a standard rate of \$135 per hour was used..." PG&E's response to DRA data request DRA-PZS8-2. PG&E provide the 2011 GT&S rate case and 2011 GRC Labor Burden Rates
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1 demonstrate the calculated breakdown of labor costs or explain how PG&E's
2 historical embedded labor costs for existing employees and labor costs that were
3 authorized in its 2011 GRC and 2011 GT&S rate case for additional staffing were
4 incorporated into its GTAM Project forecast. PG&E provided no verifiable support to
5 demonstrate that it is not double counting labor costs. Nor has it provided
6 information that shows specifically how much of the labor costs forecasted are for
7 existing employees that have been reassigned to this project and how much of the
8 labor is for newly hired employees.⁹⁷ PG&E's testimony also fails to demonstrate
9 how it incorporated savings associated with labor expenses from employee
10 retirements into its forecast. PG&E's request lacks specific detail on its labor costs,
11 cannot be substantiated, and should be denied.⁹⁸

12 PG&E recently laid off several employees in its IT business unit. PG&E's
13 forecast for its GTAM Project includes labor costs for IT employees.⁹⁹ The funding
14 for these positions that were eliminated were requested and authorized in PG&E's
15 2011 GRC, and PG&E's authorized 2011 GRC funding will not be adjusted
16 downward. No additional funding is warranted for the GTAM Project.
17

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(benefit burden, payroll tax burden, and capital A&G) it used in the calculation of its forecast in this response.

⁹⁷ DRA requested information from PG&E to demonstrate that it was not doubling counting labor cost in DRA data request DRA-TLG-1, question 4-t.

⁹⁸ DRA requested the detailed breakdown and supporting documentation for the actual hourly rates for each position included in PG&E's forecast for its GTAM Project excluding overhead, employee benefits, indirect costs, etc. The labor cost information was requested due to DRA's concerns that PG&E's labor forecast appeared to be excessive. DRA also requested that PG&E show the detail for the calculation of overhead, employee benefits, and indirect costs separately. PG&E did not provide detail on the calculation of its overhead, employee benefits, and indirect costs separately, instead these costs were shown lumped together. PG&E did not provide its actual hourly costs for its GTAM as requested. PG&E provided an average blended hourly rate of PG&E's standard costs rates and market rates for third party consultants that were based on information in PG&E's cost forecasting model. PG&E's response to DRA data request DRA-TLG-2, question 1-b.

⁹⁹ SF Chronicle, "PG&E's post-blast reorganization claims 225 jobs" (dated November 11, 2011).

1 DRA noted inconsistencies between PG&E’s testimony and information
2 provided DRA by PG&E staff, or obtained by DRA staff while on a PG&E field tour.
3 To clarify, DRA requested additional information.

4 DRA asked:¹⁰⁰

5 PG&E states on page 1-9 that “The GTAM effort involves the
6 consolidation of various important pipeline records into two primary
7 electronic systems (SAP and PG&E’s Geographic Information
8 System), which will enable PG&E to integrate pipeline records
9 going forward”. PG&E states further on page 1-10 that “work
10 management and data capture necessary for maintenance and
11 inspection will be significantly enhanced by the new data system.
12 This will be accomplished by eliminating paper-based maintenance
13 and inspection work processes and implementing automated
14 processes to manage leak survey, mark and locate, and
15 preventative/corrective maintenance work”.

16 As mentioned above, on Friday, September 16, 2011, DRA toured
17 some of PG&E’s gas transmission substations/record facilities
18 scheduled as part of the record keeping OII (I.11-02-016). While on
19 the tour, DRA was informed by PG&E staff that PG&E has been
20 utilizing an electronic filing system (i.e. Pipeline Maintenance
21 (PLM), GIS and Field Service System, etc.) to schedule and record
22 corrective and preventive maintenance activities, create and send
23 electronic work orders, as well as access various data, pipeline
24 drawings, and maps associated with gas transmission pipelines
25 since the late 1990s; DRA was also informed that PG&E has
26 utilized a GIS system (one recent version of GIS has been in
27 operation at PG&E for just two months), which replaced PG&E’s
28 use and primary reliance on paper plat maps/sheets since the late
29 1990s, and that PG&E’s gas transmission field staff have been
30 utilizing mobile computers to schedule, record and complete daily
31 work activities related to gas transmission pipelines since the late
32 1990s.

33 Provide all documentation that explains in detail the inconsistencies
34 in PG&E’s testimony and forecast request as it relates to the
35 discussion on page 1-9 and 1-10 mentioned above and the
36 information that DRA was informed of by PG&E staff as well as
37 observed while on a PG&E field tour.
38
39
40
41

¹⁰⁰ DRA data request DRA-TLG-1, question 4-f.

1 PG&E's response:
2

3 We believe the testimony is consistent with DRA's observations
4 cited in framing this question. Chapter 1 provides a very high level,
5 executive overview of the GTAM project. Chapter 5 explains in
6 significantly more detail the objectives and need for the GTAM
7 project. In PG&E's testimony, PG&E states that the objective of
8 GTAM is to "significantly update its existing Information Technology
9 (IT) systems and introduce and integrate additional IT applications
10 to support traceable, verifiable and complete information related to
11 PG&E's gas transmission infrastructure and to support operational
12 efficiencies". (Chapter 5, page 5-2, lines 71-12). PG&E currently
13 has available a number of existing information systems that it uses
14 to track work that needs to be performed and work that has been
15 completed. These systems include: SAP, PLM, GasFM, and Field
16 Service System...Using the linear referencing data structure isn't
17 the only way to correlate pipeline information but it is commonly
18 used in industries where the assets are linear in nature (rail roads,
19 highways, pipelines, etc.). Linear referencing is a relatively new
20 approach to organizing pipeline information and can provide
21 enhanced capabilities for assessing potential risks.
22

23 As PG&E stated in its response above it "has available a number of existing
24 information systems that it uses to track work that needs to be performed and work
25 that has been completed" and using "the linear referencing data structure isn't the
26 only way to correlate pipeline information." PG&E's response does not justify
27 ignoring these existing systems and associated costs nor does its response support
28 additional funding to build a linear referencing data structure from the ground up.

29 **4. GTAM Forecast And Ratepayer Benefits And Savings**

30 PG&E discusses various gas transmission recordkeeping maintenance
31 activities that it claims currently require large amounts of staff labor hours to perform
32 and the expected efficiency gains associated with its GTAM Project in its Direct
33 Testimony on pp.5-18 and 5-19. PG&E fails to demonstrate or incorporate into its
34 forecast any calculated savings and benefits and associated efficiency gains in
35 dollars. PG&E states that its "GTAM Project will improve PG&E's pipeline risk
36 management capabilities by integrating different types of asset data into a single

1 system” and because of this it expects to generate operational efficiencies.¹⁰¹
2 PG&E’s testimony, workpapers, and data responses do not demonstrate any
3 identifiable or calculated ratepayer savings and benefits. PG&E is presently
4 incurring labor and non-labor costs for the operation and maintenance of several
5 database systems associated with its gas transmission system. DRA discovered the
6 following when it asked for additional information from PG&E on its GTAM Project
7 forecast.

8 DRA asked:¹⁰²

9 On page 5-19, PG&E mentions the following systems that is
10 currently in operations which will be streamlined, eliminated and/or
11 consolidated by implementation of its GTAM project: Pipeline
12 Maintenance (PLM) Project Status and Reporting System, Gas
13 Facility Maintenance (Gas FM), Integrated Gas Inspection System
14 (IGIS), Non-Leak Information System (NLIS), GIS, SAP, and Gas
15 Planning Tools. 1) Provide the specific cite in PG&E’s testimony
16 and workpapers where PG&E identifies the calculated efficiency
17 gains (total dollars) and the calculated ratepayer benefits and
18 savings and which demonstrates the breakdown of the dollars for
19 the efficiencies, benefits and savings that PG&E incorporated into
20 its forecast for the GTAM project due to the elimination and
21 consolidation of the above programs. 2) Provide the documentation
22 that explains in detail and fully demonstrates where and how PG&E
23 incorporated embedded historical costs, that were incurred for the
24 labor, non-labor, software, hardware, testing, implementation,
25 development, technical writers, staff training, and maintenance for
26 programs and projects that will be closed and/or eliminated, into its
27 forecast for its GTAM project.

28
29 PG&E’s response:

30
31 The driver of the GTAM Project is to improve the safety and
32 reliability of PG&E’s gas transmission system. No quantitative
33 cost/benefit analysis was performed to estimate potential savings
34 due to the elimination of and consolidation of legacy systems. The
35 primary benefits from the GTAM are improved availability and
36 reliability of information. This would eliminate the practice of
37 “require[ing] multiple staff to handle the data, including field

¹⁰¹ PG&E’s Direct Testimony, p.5-18.

¹⁰² DRA data request DRA-TLG-1, question 4-h.

1 workers, supervisors, data entry clerks, and file clerks.” Achieving
2 these benefits would facilitate PG&E and the CPUC implementing
3 the NTSB’s recommendations for traceable, verifiable, and
4 complete pipeline information. After the GTAM Project is
5 implemented in 2015, PG&E expects there will be cost savings in
6 some areas and new or increased costs in other areas. While there
7 will be some savings for ongoing operations and maintenance costs
8 for legacy systems, these are expected to be offset by new or
9 increased operating and maintenance costs for new systems (GIS)
10 and expanded use of existing enterprise systems (SAP). No major
11 savings is expected from closing or eliminating other programs
12 during the time period covered by this rate request (2011-2014) and
13 a reduction in embedded historical costs has therefore not been
14 incorporated in the GTAM Project cost forecast. The potential
15 future savings associated with the implementation of GTAM would
16 be addressed in future rate case filings.
17

18 PG&E did not provide sufficient documentation to demonstrate that its GTAM
19 Project would produce costs savings and efficiency gains discussed in its testimony
20 in this proceeding. PG&E did not provide sufficient information to demonstrate that
21 its GTAM Project would produce ratepayer benefits/savings in order to fully justify
22 the costs of this project. Faced with a similar lack of cost/benefit analysis in another
23 case, the Commission stated:

24 The descriptions of the potential benefits of the projects provide
25 general information but there is not sufficient information to
26 determine whether the costs are justified in either the short or long
27 term. With this type of analysis and showing it is possible to
28 explicitly include associated costs in rates but it is not possible to
29 explicitly reflect any of the associated benefits or savings, whatever
30 they may ultimately be, in rates for this rate case cycle. This
31 imbalance is troubling. In general, it is our obligation to consider
32 both the costs and, if applicable, the benefits/savings of utility
33 proposals. If the benefits/savings are ultimately small when
34 compared to costs, the proposal should probably not be
35 implemented or included in rates. If the benefits/savings are
36 substantial, it would be reasonable to include both the costs and
37 benefits/savings in determining rates. For the advanced technology
38 programs/projects, the lack of information regarding
39 benefits/savings precludes us from making such determinations. In
40 this decision, we are authorizing significant increases in T&D O&M
41 and capital expenditures. How the potential benefits of the
42 advanced technology programs/projects relate to SCE’s proposals
43 for increased spending is not clear. Whether the advanced

1 technology spending results in the modification of any future
2 spending related to T&D costs has not been shown.¹⁰³
3

4 The Commission should reject additional ratepayer funding for activities that
5 already have costs embedded in historical expenses. PG&E should continue to
6 upgrade its existing IT systems and implement the next phase of its database
7 consolidation projects as part of its GTAM Project, as it has done in the past, to
8 ensure that its recordkeeping activities associated with its gas transmission system
9 are accurately and completely maintained to ensure safety and reliability of its
10 system. PG&E should utilize costs already embedded in its historical expenses for
11 this project and any costs incurred in excess of authorized funding should be at
12 PG&E's shareholders' expense. In its next GRC, PG&E should be required to
13 demonstrate all savings associated with reduced staff time to perform various gas
14 transmission recordkeeping maintenance activities discussed in its testimony and
15 related efficiency gains and clearly identify all calculated ratepayer savings and
16 benefits associated with its GTAM Project.

17 **V. CONCLUSION**

18 Based on the foregoing, DRA respectfully recommends that the Commission
19 reject the utility proposal.

¹⁰³ D.06-05-016, p.64.