Results of Operations Issues for Pacific Gas and Electric Company

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California Public Utilities Commission

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I. INTRODUCTION

This testimony is sponsored by Jeffrey A. Nahigian, Senior Economist with JBS Energy, Inc., on behalf of The Utility Reform Network (TURN). Mr. Nahigian has over 27 years of experience analyzing electric and gas utility issues and has appeared before this Commission on numerous occasions. His qualifications are attached to this testimony (Attachment 1).

Mr. Nahigian addresses Customer Care issues associated with customer inquiry assistance costs, meter to cash costs, and metering. He also includes TURN's recommendations to implement and finalize an audit of PG&E's SmartMeter costs, that was ordered by the Commission in D. 1108-015.

The other major portion of Mr. Nahigian's testimony address PG&E's corporate real estate expenditures for shared services functions as well as PG&E's proposed real estate investments for specific operating divisions such as the gas distribution and the energy supply departments.

The results of Mr. Nahigian's analysis are contained in the following Table 1.

Table 1:
TURN Recommended Cost Adjustments ('000 $Nominal)
(2014 Expenses and 2012-2016 Capital)

Customer □ð Inquiry □ð Assistance □ð (Cl	**Expense □ð**	**Capital □ð**
Service □ð Level □ð Improve	$ □ð □ð5,94	□ð □ð □ð □ð
Customer □ð Advocacy □ð Team	$ □ð □ð1,7	□ð □ð □ð □ð
Non□ □괄ĠRecurring □ð Cost □ð in □ð 2011	$ □ð □ð2,4	□ð □ð □ð □ð
Peak □ð Time □ð Rebates	$ □ð □ð4,5	□ð □ð □ð □ð
Supervisors □ð	$ □ð □ð 6	□ð □ð □ð □ð
Training □ð	$ □ð □ð 1	□ð □ð □ð □ð
Meter □ð to □ð Cash		
Energy □ð Data □ð Services	$ □ð □ð3,7	□ð □ð □ð □ð
Manually □ð Process □ð Interval □ð Data	$ □ð □ð8,8	□ð □ð □ð □ð
Increased □ð SONP □ð from □ð Opt □ð Ou	$ □ð □ð1,7	□ð □ð □ð □ð
Customer □ð Risk □ð Analysis □ð Software	$ □ð □ð 3	□ð □ð □ð □ð
Revenue □ð Assurance □ð Costs	$ □ð □ð1,3	□ð □ð □ð □ð
Metering □ð		
Meter □ð Reading □ð	$ □ð □ð6,5	□ð □ð □ð □ð
Meter □ð Maintenance	$ □ð □ð4,8	□ð □ð □ð □ð
Customer □ð Care □ð Real □ð Estate		
Customer □ð Inquiry □ð Assistance	$ □ð □ð 6	$ □ð □ð 9
Meter □ð to □ð Cash □ð	$ □ð □ð1,4	$ □ð □ð 6
Real □ð Estate □ð		
Base □ð and □ð Seismic □ð Building □ð Program □ð		$ □ð □ð 2
Real □ð Estate □ð Solutions □ð Program □ð	$ □ð □ð2,9	$ □ð □ð 8
Real □ð Estate □ð not □ð in □ð Shared □ð Services		
Bakersfield □ð Office □ð	$ □ð □ð2,8	$ □ð □ð 6
Relocate □ð Quincy □ð Service □ð Center	$ □ð □ð 5	$ □ð □ð 6
Relocate □ð Clearlake □ð Service □ð Center		$ □ð □ð 6
Relocate □ð Walnut □ð Creek □ð Service □ð Center	$ □ð □ð 4	$ □ð □ð 2
Fairfield □ð DC □ð Redundant □ð Power □ð Feed		$ □ð □ð 1
San □ð Ramon □ð Gas □ð HQ □ð Construct		$ □ð □ð 1
San □ð Ramon □ð Gas □ð HQ □ð Rent □ð	$ □ð □ð1,5	$ □ð □ð 2
Fifth □ð Floor □ð Gas □ð Dispatch □ð Center		$ □ð □ð 1
Gas □ð Control □ð Hot □ð Backup	$ □ð □ð 2	$ □ð □ð 3
Gas □ð Training □ð Center	$ □ð □ð2,0	$ □ð □ð 5
Roseville □ð Service □ð Center	$ □ð □ð1,2	$ □ð □ð 1
Antioch □ð Service □ð Center	$ □ð □ð 2	$ □ð □ð 8
Vaca □ð Dixon □ð Sub □ð GF □ð Yard □ð Building	$ □ð □ð 1	$ □ð □ð 2
Humboldt □ð Bay □ð Generating □ð Station □ð		$ □ð □ð 1
Alternate □ð HQ □ð and □ð EOC		$ □ð □ð 1
Total □ð Reduction □ð	**$ □ð □ð 86,4**	**$ □ð □ð 39**

II. Customer Care Issues (PG&E-5)

In this section, TURN provides its recommendations for funding certain customer care (also referred to as customer service) issues contained in PG&E-5. In particular, we analyze PG&E's forecasts of customer inquiry assistance (CIA), meter to cash (MTC), and metering costs as described in Chapters 2, 4, and 5 of that exhibit.

Regarding CIA costs in Chapter 2, TURN recommends a reduction in TY expenses of approximately $15.571 million, primarily due to the elimination of unnecessary additional customer service representative positions and the elimination of costs related to the Peak Time Rebate program, which are appropriately addressed in another proceeding.

TURN recommends a reduction in the TY expense forecast of meter to cash costs of approximately $25.982 million, primarily by eliminating $18.8 million for manual processing of SmartMeter data errors. PG&E had clearly forecast using SmartMeter interval data for billing purposes in its AMI application, and it should not be allowed to argue now that it had never intended to actually use SmartMeter data for billing purposes. TURN also adjusted PG&E's proposed test year costs for customer shut-off for non-payment (SONP) activities by updating PG&E's forecast SmartMeter Opt-Out Program (SMOOP) customers in the test year. Adjustments were also made to PG&E's proposed software costs, its increased revenue assurance protection staffing, as well as corporate real estate costs associated with increased staffing that TURN believes is unnecessary.

For Chapter 5, TURN reduced PG&E's proposed meter reading costs by almost $27 million to be consistent with the realistic forecast of opt-out customers. TURN adjusted downward PG&E's proposed SmartMeter meter maintenance costs by $4.83 million to be consistent with the costs PG&E used in both of its advanced metering infrastructure applications.

Generally, TURN's discussion of customer care issues is organized by PG&E chapter. However, TURN discusses PG&E's request to fund a) meter reading of opt-out customers, (Metering, Chapter 5) and b) exceptions processing of SmartMeter interval

data (Meter to Cash, Chapter 4) first, because they constitute TURN's larger cost adjustments to PG&E's forecast of Customer Care costs.

TURN's recommended adjustments to PG&E's 2014 customer service cost estimates are contained in Table 1.

Table 2
TURN Adjustments to PG&E's 2014 Customer Care Costs ('000$ Nominal)

	PG&E				TURN				Reduction			
			Capital		Expense						Capital	
Customer Inquiry Assistance		Expense	Primary	Alternate	Primary	Alternate	Primary	Alternate	Primary	Alternate	Primary	Alternate
Service Level Improve												
Customer Advocacy Team												
Non Recurring Cost												
Peak Time Rebates												
Supervisors												
Training												
Meter to Cash												
Energy Data Services												
Manually Process Interval Data												
Increased SONP from Opt Out												
Customer Risk Analysis Software												
Revenue Assurance Costs												
Metering												
Meter Reading												
Meter Maintenance												
Real Estate												
Customer Inquiry Assistance												
Meter Cash												
Total												
Other Operating Revenues												
Opt Out Fees												

A. Two Adjustments Reflect TURN's Adjustment to PG&E's Inflated Forecast Related to Meter Reading and Processing SmartMeter Data

1. Meter Reading Expenses

Despite reporting that its SmartMeter deployment will finally be completed by 2014, PG&E forecasts that it will still cost $32.582 million to read meters in 2014. Indeed, PG&E forecasts the need for 200 meter readers in 2014, as compared to 457 meter readers in 2014. This does not sound like the type of reduction one would expect from a utility that has converted almost all of its 10 million electric and gas meters to communicating interval meters. PG&E blames the need to retain about 43% of its meter reader force on its SmartMeter Opt-Out program (SMOOP), which currently has about 35,000 participants.[1]

[1] PG&E-05, p. 5-13 and 5-14, p. WP 5-34. the 234,065 meters that will need to be read manually.

.

TURN strongly opposes PG&E's request, since its forecast of SMOOP participation is entirely at odds with actual participation numbers and with PG&E's own forecast of participation in A.11-03-014.

In this rate case PG&E forecasts 200,600 SMOOP customers on January 1, 2014 (and 234,065 total meters requiring meter reading).[2] In the Opt Out proceeding (A.11-03-014) PG&E forecast a total of 54,000 customers by January 2014 (equating to 89,952 meters).[3]

As of April 2013, PG&E had a total of 35,338 customers in the Opt-Out Program.[4] In comparison, PG&E's forecast in its SMOOP testimony assumed it would have 39,624 SMOOP customers by the end of April 2013.[5] PG&E is on course to sign up 90% of the SMOOP customers it forecast it would have on January 1, 2014. To reach its general rate case forecast, PG&E would have to sign up an additional 166,262 SMOOP customers in the next 8 months.

Such a huge increase in additional SMOOP participants is entirely unrealistic. New customers signing up for PG&E's SMOOP have slowed to a trickle. As of October 1, 2012, 31,500 customers had opted out of the SmartMeter program.[6] By April 2013, PG&E had added 3,838 opt out customers in a seven-month period, or an average of 548 customers per month. At this rate, PG&E will only add 4,386 new opt out customers by January 1, 2014—resulting in a little less than 40,000 opt out customers for the test year.[7] It is obvious that a majority of those customers who wished to opt-out did so at the earliest possible opportunity.

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[2] PG&E-5, WP 4-17 and WP 5-34.

[3] A. 11-03-014, Workpapers supporting Chapter 1 on Customer Participation included as Attachment 11.

[4] Attachment to TURN #59.Q1 included as Attachment 12.

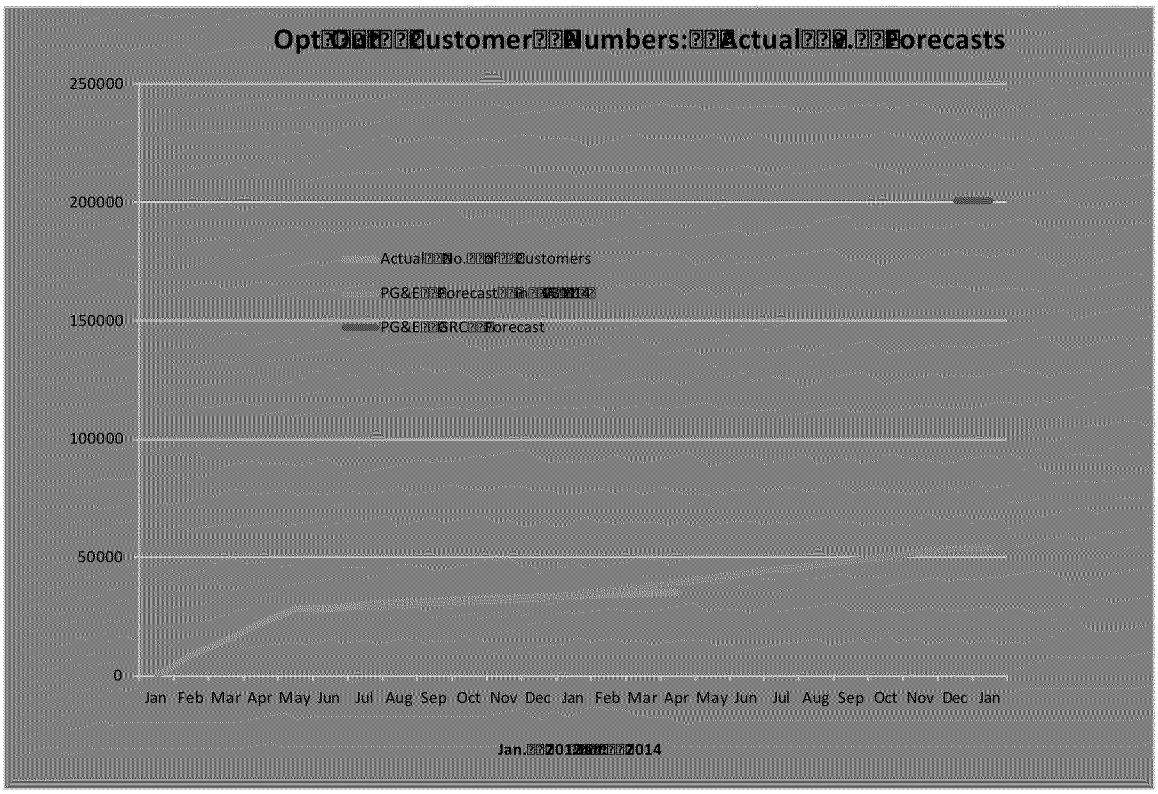
[5] Attachment 11..

[6] PG&E-5, Chapter 10, p. 10-8

[7] PG&E's GRC testimony forecast that it will add only 70 new opt out customers in 2014 (PG&E-5, WP 5-34). Add this to the 39,724 customers TURN calculated on a prorated basis results in approximately 40,000 SMOOP customers.

The unreasonableness of PG&E's forecast in this rate case is illustrated in Figure 1, which shows a) PG&E's opt out customer participation levels forecast in A. 11-03-014, b) PG&E's forecast in this application and c) actual recorded participation through April 2013.

Figure 1: Smart Meter Opt-Out Program Participation Forecasts



PG&E claims that uncertainty over a final decision in Phase II of the SMOOP case justifies PG&E's higher forecast and that if there is a decision in that proceeding during the course of this proceeding "PG&E **may** update its estimated participation rates and related costs." [8] PG&E's argument is entirely without merit. The outcome of the Phase II decision will not likely impact participation, as the Commission has given no indication that it plans to make opt-ing a free choice. TURN recommends that meter reading costs be based on a forecast of 40,000 opt-out participants.

Using PG&E's assumption that 2/3 of these customers have both gas and electric service from PG&E results in 66,400 meters to be read for SMOOP customers.

[8] PG&E-5, Chapter 10, p. 10-10

PG&E then forecasts an additional 33,395 meters to be read.[9] 15,600 of these meters are meters that PG&E admits cannot feasibly be connected to its SmartMeter system. The remaining 17,795 meters are SmartMeters that are forecast to be off-line for maintenance; thus necessitating the need for manual meter reads. Add these to TURN's SMOOP forecast of 66,400 meters results in 99,795 meters in 2014 that may need a manual meter read, rather than the 234,065 forecast by PG&E.

After adjusting PG&E's forecast of the number of meters to be read, TURN adjusts PG&E's unit cost per meter read downward. PG&E's meter reading unit costs are based on a 2011 cost of $10.69 per meter read based on "Change of Party" (CP) meter reads that are performed outside of the normal meter reading schedule.[10] PG&E has chosen the most expensive type of meter read to base its forecast on, because of the random nature of CP meter reads.

PG&E's recorded cost in 2011 for reading CP meters is over double what it cost PG&E to read SMOOP meters. In the SMOOP proceeding PG&E assumed a $5.00/meter reading cost based on the recorded cost from March 2012 through June 2012 to read these meters.[11] This is consistent with PG&E's recorded costs for reading SMOOP meters from June, 2012 through December 2012—that resulted in a per unit cost of $4.80/meter.[12]

Therefore, TURN calculated PG&E's 2014 meter reading costs by multiplying $5.00 per meter by 99,795 meters, by 12 months. This is æconservative calculation because it assumes PG&E will read each of these meters every month.[13] This calculation results in meter reading cost of $5.988 million in test year 2014. The Commission should adopt this amount and lower PG&E's 2014 expense forecast for MWC AR by $26.6 million.

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[9] PG&E-5, WP 5-34

[10] PG&E-5, WP 5-35

[11] A. 11-03-014, PG&E Workpapers 3-4, Meter Reading Expense included as Attachment 2.

[12] Attachment to TURN #59.Q2, included as Attachment 3.

[13] In the opt out proceeding there were many parties that suggested less than 12 meter reads per year for opt out customers to reduce the costs of opting out. The CPUC has yet to decide that issue, but if it does adopt less frequent meter reads, PG&E's meter reading costs should drop accordingly.

The biggest single operational benefit that ratepayers were supposed to receive from advanced metering systems was the avoidance of meter reading costs. Specifically, PG&E's ratepayers were supposed to receive an annualized benefit of avoiding $86.2 million per year (2005 $) in meter reading costs.[14] But, if PG&E's forecasts and proposals for meter reading costs are accepted by the Commission, ratepayers will receive less than 2/3 of the largest single operational benefit associated with advanced meters.

2. Pre-billing Activities to Manually Process SmartMeter Data

PG&E requests $18.8 million in billing operations support to hire 188 additional FTEs to process interval exceptions from its SmartMeter program, plus $406,000 for 4 more related positions.[15] PG&E claims that the future large scale implementation of time of use and dynamic pricing options means exception processing of interval data on a broader and larger scale than ever envisioned by PG&E. PG&E claims that it will need to increase daily exception processing from the current level of 500 transactions per day to approximately 50,000 transactions per day and the incremental $18.8 million will allow it to hire the staff to manually process these billing exceptions.

TURN opposes PG&E's funding request as unnecessary and duplicative of earlier funding requests. PG&E claims, in this proceeding, that the need to process interval data for all of its SmartMeter customers is a new surprise and that it had little idea when it filed its application (A. 05-06-028) that it would have to process large amounts of customer interval data. This is not true. PG&E knew it would have to process large amounts of interval data when it filed its AMI application, which is why it requested (and received authorization for) an $85 million interval billing system (Dec. 06-07-027, Table 1, p. 29) as well as $6.6 million for billing exceptions.

> "The implementation costs and on-going operations and maintenance (O&M) expenditures described in this chapter are necessary to upgrade the existing billing system such that it is able to process and produce billing information according to the interval data it receives from the AMI

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[15] PG&E-5, WP 4-28. PG&E explains that the incremental increase over 2011 costs for the 188 new FTEs is $13.7 million, as the $18.8 million increase is partially offset by a $5.2 million reduction in costs associated with exception processing for legacy (non-SmartMeter) service locations. PG&E-5, pp. 4-17 – 4-18.

> Interface System (A. 05-06-028, PG&E-2, Chapter 3, p. 3-1, included as Attachment 4).
>
> Version 1.5 of the CC&B will allow PG&E to bill using the interval data provided by the new AMI metering equipment and the new dynamic pricing structures (A. 05-06-028, PG&E-2, Chapter 3, p. 3-6, included as Attachment 5).
>
> For example, PG&E has assumed that it will use interval data produced on an hourly basis for residential customers, if this requirement were revised to be interval data for every five minutes for every residential customer, then PG&E would need to substantially revise its estimates." (A. 05-06-028, PG&E-2, Chapter 2, p. 2-28, included as Attachment 6)

It is clear from PG&E's testimony in its AMI application that it understood it would need to process large amounts of hourly residential interval data. Indeed, the business case was developed based on an assumption that 15.5% of customers (or approximately 775,000 customers) would participate on a voluntary dynamic pricing tariff.[16] It was these "demand response" benefits due to price (i.e. bill) impacts that made the business case cost effective. It is incredulous that PG&E would now argue that it had not planned on actually using the interval data to bill many customers. The requirements have not changed since that application, regardless of any direction the CPUC has taken regarding dynamic pricing, and; neither the CPUC nor any other entity is proposing to collect anything other than hourly residential interval data for billing purposes. Thus, the costs for collecting hourly interval data for 5 million electric meters was accounted for and forecast by PG&E in its original AMI application, was funded and authorized by the CPUC, and the Commission should now reject PG&E's entire $19.22 million funding request in MWC IS for these additional 188 FTEs and the 4 business analysts. Finally, TURN directs the Commission to the testimony of its witness Gayatri M. Schilberg in this proceeding who addresses PG&E's request to fund an information technology

[16] D.06-07-027, p. 43 and 46.

(IT) program17 that is supposed to avoid a portion of the manual processing of pre-billed interval data. In that testimony, Ms. Schilberg analyzes PG&E's request for this IT program and provides a detailed criticism of PG&E's claimed need concerning pre-billing exceptions processing.

B. Customer Inquiry Assistance (Chapter 2)

1. Improved Service Level

PG&E's testimony states it began a program to increase customer satisfaction by improving its average speed of answer (ASA) for incoming calls and reducing the rate of call abandonment.[18] PG&E implemented this program after its consultant, the Boston Consulting Group (BCG), had found that it was tracking below utility 2010 average benchmarks for these measures. While PG&E improved its ASA to 59 seconds in 2011, it planned to further improve the ASA to 28 seconds by 2014.[19] PG&E calculated that it would have to hire an additional 68 CSRs, at a cost of $5.9 million, to achieve the 80%/28 goal by 2014.[20] PG&E's workpapers inconsistently report when these additional 68 customer service representatives (CSR) will be hired.[21]

The Commission should reject PG&E's request for an additional $5.9 million in its entirety. TURN has reviewed the Division of Ratepayer Advocates' (DRA) testimony and supports its analysis and recommendations.[22] We add to the discussion one additional fact that strongly warrants rejecting PG&E's request. PG&E admits, indeed it boasts, that it has already achieved its 80%/28 goal. Incremental funding is thus unnecessary.

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[17] Ms. Schilberg provides her recommendations concerning PG&E's proposed "Interval Data Processing and Exceptions Management" IT program (PG&E-5, p. 9-9 through 9-10) as well as PG&E's proposal to manually process interval data in general.

[18] PG&E-5, p. 2-7

[19] More specifically, the 2011 level of 59 seconds (i.e., 80%/59) means that it takes, on average, 59 seconds for 80% of the calls to reach a CSR. PG&E's 2014 goal is for an average of 28 seconds before 80% of the customers reach a CSR (80%/28).

[20] PG&E-5, WP 2-29.

[21] PG&E-5, WP 2-27 shows all $5.9 million spent in 2014 while WP 2-10 reports 22% of that spent in 2012 and 2013 ($556,000 in 2012, $779,000 in 2013, and the remaining $4.6 million in 2014).

[22] DRA-13, Customer Care, pp. 18-20.

PG&E's web site includes a public relations portal called "PG&E Currents" that provides PG&E's "perspective" on news and current events. In an article dated November 15, 2012 (Attachment 2) and titled "Grace Under Pressure: Contact Center Employees Handle Thousand of Customer Calls 24/7", PG&E explains that it had achieved its intended 80%/28 goal.[23]

> "PG&E answers about 80 percent of calls within 20 seconds—part of an 80/20 "service level target".

Based on both DRA's findings concerning average speed of handles, as well as PG&E's admission that it has achieved these goals with current staffinglevels, TURN concludes that PG&E does not need the 68 additional CSRs. TURN recommends complete disallowance of this incremental funding request.

Despite strong evidence to deny the whole request, TURN does provide an alternative. If the Commission finds that there was a possibility that it took some increment of CSRs to achieve the ASA goal which PG&E had reached byNovember 2012, the most that can be provided would be PG&E's 2012 forecast of incremental expense associated with ASA service level improvements, or $556,000.[24]

2. Large Increases for the Customer Advocacy Team Are Unnecessary

In 2011 PG&E created its "Customer Advocacy Team" (CAT), a specially trained subset of CSRs tasked with resolving the more complex and sensitive customer communication issues. The purpose of this team is to improve customer satisfaction by addressing customer issues that require a longer resolution time and resolving them more quickly so as to avoid having these issues evolve into a formal complaint. [25] PG&E piloted and funded this program with 11 customer service representatives in 2011. PG&E did not forecast, nor request funds for, this team in its 2011 general rate case. In this proceeding, PG&E requests $1.770 million to add 19 additional CSRs and one supervisor by 2014. The Commission should reject PG&E's request as excessive and unnecessary.

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[23] "Grace Under Pressure" from PG&E Currents (November 15, 2012) included as Attachment 7.

[24] PG&E-5, WP 2-10 and 2-11.

[25] PG&E-5, Chapter 2, p. 2-10.

PG&E explains that since it formed the CAT, the team has intervened in 896 cases and resolved 93%, or 833 of those intervention cases, leaving only 63 outstanding. With only 88, or 7% of its intervention cases unresolved, it now wants to hire 19 incremental CSRs.[26] This simply makes no sense. PG&E is saying that 11 CSRs can handle 833 cases presumably over a single year),[27] or roughly 76 cases per CSR. Now with 63 intervention cases outstanding PG&E wants to hire 19 CSRs that would equate to handling 1,444 intervention cases. PG&E's proposal to hire 19 CSRs to handle the remaining 7% of unresolved intervention cases is unnecessary.[28]

PG&E also claims it needs to expand the team to contact a customers who were not "referred cases" but who rated their CSR experience as "less than 2" in a post call survey, in an attempt to convince these customer to have a more positive attitude towards PG&E. While this may, or may not placate unhappy customers, it is not clear that this function benefits PG&E's ratepayers in general as much as it helps PG&E's corporate image.

PG&E has not provided adequate justification for its incremental costs for the Customer Advocacy Team. Therefore, the Commission should reduce PG&E's 2014 expense forecast by $1.770 million.

3. Non-Recurring and One-Time Customer Inquiry Assistance Costs in the Base Year Should Be Removed from the Test Year 2014

Any one time costs that occur in test year 2011 should be removed from 2014 costs because they will not occur in 2014. The costs for PG&E CSRs to handle customer inquiry calls in 2011 associated with SmartMeter Deployment should be removed from the base year. PG&E's SmartMeter deployment will finally be completed by 2014 and PG&E will no longer incur those costs.[29] In addition, these costs should not be a part of

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[26] PG&E-5, WP 2-24 and 2-25.

[27] TURN assumes these cases were all handled in a single year because PG&E developed the CAT beginning in 2011 and the base year costs are based on 2011 recorded costs.

[28] Also, the Commission should note that PG&E's forecast of CAT savings from reduced "repeat calls" is forecast for 2012 and 2013 when the CAT is staffed by the current number of 11 CSRs.

[29] PG&E-5, Chapter 10, pp. 10-1 and 10-2.

base rates because PG&E SmartMeter- deployment-related calls were funded in A. 05-06-028.[30]

In discovery, PG&E provided average speed of answer (ASA) statistics from its customer inquiry department for 2007-2011. Those statistics broke out the number of calls and CSR labor hours that are funded by non-GRC funding (i.e., energy efficiency, SmartMeter, etc.).[31] PG&E's response identified a number of CSR-handled calls that were funded outside of the GRC process.Four topics were covered by those calls: a) peak day pricing, b) SmartMeter deployment in Kern County, c) Community Choice Aggregation, and d)SmartMeter deployment issues other than deployment in Kern County.[32]

The level of costs resulting from the SmartMeter related calls booked to the 2011 base year were material, while the number of calls handled for PDP and the Kern County deployment were not. PG&E fielded 281,910 calls related to SmartMeters during 2011, but only fielded 2,262 calls related to the Kern County deployment and a mere 187 calls related to PDP during 2011.[33] PG&E's workpapers indicate that the average cost for CSR-handled calls in 2011 was $8.76/call (PG&E-5, WP 2-15, nominal $). Multiplying this by the 281,910 SmartMeter related calls that were funded outside of the GRC in 2011 but imputed to the base year for purposes of PG&E's 2014 forecast equates to approximately $2.47 million in 2011. These costs should not be used to calculate test year 2014 costs because a) they are non-recurring and b) are funded through non-GRC funding authorizations. Therefore, the Commission should reduce 2014 customer inquiry assistance costs by $2.47 million.

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[30] Dec. 06-07-027. PG&E was authorized $32.3 milllion (Table 1) in customer-contact related costs. That table assumed that the costs would cover the deployment period that the CPUC assumed would end in 2011. PG&E says it will not complete AMI deployment until 2014 (PG&E-5, p. 10-1 and 10-2.

[31] DRA #125.Q9, Attachment to Supplemental Response, included as Attachment 8

[32] PG&E classifies these costs as non-GRC funded SmartMeter calls, indicating that they are SmartMeter deployment related calls.

[33] DRA #125.Q9, Attachment to Supplemental Response, included as Attachment 8.

4. Peak Time Rebate Costs Are Best Addressed in A.10-02-028

PG&E requests an additional $4.6 million for customer contact center costs associated with peak time rebate (PTR) events in 2014.[34] PG&E forecasts that 1% of all eligible PTR customers will call PG&E after a PTR event to inquire about that event. PG&E admits that it has also requested this funding in the pending PTR proceeding (A. 10-02-028), but that this is just a placeholder in the event the Commission does not decide that case in a timely manner.

> "PG&E will not double-recover these ongoing PTR costs. If there is a delay in the implementation of PTR from the currently proposed 2013/2014 implementation schedule, PG&E would remove these PTR costs from the GRC and request funding for them in the PTR case. If there is no delay, PG&E would remove them from the PTR filing and leave the funding request in the GRC" (PG&E-5, p. 2-15, fn #3).

TURN agrees with PG&E that the utility should not double recover these costs. However, TURN does not agreewith PG&E's proposed method to prevent double recoverery. The best method of ensuring these costs are not "double recovered" is not to "double request" them in multiple proceedings. There is no rationale for requesting those costs here, since they will become real only if the Commission approves a PTR default tariff in A.10-02-028. PG&E's proposal increases regulatory inefficiencies and leads to the possibility of double recovery.. The Commission should consider the appropriate funding for PTR-related customer contact center costs in the same proceeding in which a record has been developed on that issue, as well as related issues about the PTR program, which is A.10-02-028. The requested $4.6 million should be denied.

5. Incremental Real Estate, Training, and Supervision Costs Associated with Additional Customer Service Representatives

PG&E has also requested additional costs for corporate real estate, supervision, and training specifically tied to its proposed increased staffing levels. TURN's primary recommendation for a) improved service levels (68 CSRs) and b) the customer advocacy team (19 CSRs and 1 Supervisor) results in a total of 87 less CSRs and a supervisor (88 total FTE additions). We used this figure to reduce corporate real estate, supervisor, and training costs accordingly.

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[34] PG&E-5, Chapter 2, pp. 2-14 through 2-15

PG&E assumes 14.5 supervisors per CSR[35] which translates to a reduction of 6 supervisors at an average cost of $109,861 per supervisor. (PG&E-5, WP 2-33). This lowers PG&E's proposed supervisor costs for CIA in 2014 by $659,000.

If TURN's suggested adjustments to PG&E's CIA staffing levels is adopted by the Commission, PG&E will experience lower costs for NOT training an incremental 87 CSRs. PG&E calculates its incremental annual training costs per CSR at 1,440 minutes times $1.08 per minute or $1,555.20 per CSR.[36] Eliminating incremental training for 87 CSRs in the test year will lower PG&E's training costs by $135,302 in 2014.

In addition to a reduction in supervision and training costs, PG&E should see a reduction in the need for increased space in the Sacramento and Fresno Customer Contact Centers it forecasts for 2014. PG&E forecasts that it will need an additional $15.5 million in capital and $1.2 million in expense to provide working space for an additional 135 CSRs in 2014.[37] That results in $114,776 in capital and $9,021 in expense per new CSR. Thus, reducing that headcount by 88 further reduces PG&E's capital and expense request for corporate real estate costs by $10.1 million and $793,843 respectively in 2014.

C. Meter to Cash—Chapter 4

1. Energy Data Services

PG&E's Energy Data Services (EDS) is responsible for retrieving electric and gas interval meter data for large commercial, industrial, and agricultural customers, via telephony based metering.[38] PG&E reads approximately 20,000 gas and electric meters daily, performs usage analysis and quality assurance processes and provides that data for its billing department for calculating and sending customer bills as well as its load research group.[39] The current costs for reading EDS customer meters is booked to PG&E's

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[35] PG&E-5, WP 2-10

[36] PG&E-5, WP 2-30 through 2-32

[37] PG&E-5, WP 2-48

[38] Telecommunications methods include hardwire phone lines, digital, cellular, and paging networks and field retrieval of interval data.

[39] PG&E-5, Chapter 4, p. 4-8

current meter reading balancing account[40] that is intended to close at the end of 2013. At that time, PG&E will then begin to book meter reading costs, including these EDS costs, to general rates beginning in 2014.

PG&E claims that it never intended on converting EDS customers to its SmartMeter system and that the Commission understood this; thus, legitimizing its proposal to book $3.2 million (reduced in PG&E Response to TURN #26.Q17, included as Attachment 5, from original request of $3.8 million)[41] to general rates.

> "SmartMeter was not envisioned to provide certain metering capabilities, such as electronic correction for pressure and temperature influences required for large volume gas customers, and four-quadrant measurement for electric customers with cogeneration and power factor adjustments. EDS will continue to utilize this metering technology until integration with or replacement by SmartMeter technology is feasible." (PG&E-5, pp. 4-8 and 4-9)

PG&E's current claim that it's SmartMeter infrastructure was never envisioned to serve customers served by the EDS group is untrue, at least for the vast majority of meters served by the EDS group, the 19,967 MV-90 electric meters. PG&E may have come to this realization since its original application (A. 05-06-028) for approval of its advanced metering infrastructure (AMI), but that is not what the PG&E presented to the Commission in that proceeding and it is not what the Commission accepted in approving PG&E's AMI project.

In its AMI application (A. 05-06-028), PG&E presented a business case analysis to the Commission that claimed AMI would provide ratepayers with an annual savings of $6.452 million per year from the EDS group beginning in the 3rd year of the deployment.

PG&E stated that

> "In order to limit any adverse impact on ABS-billed accounts associated with the AMIO Project's initial deployment, PG&E expects to wait until at

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[40] As part of the settlement in PG&E's 2011 GRC, PG&E booked all recorded 2011-2013 meter reading costs to this balancing account rather than to general rates. The EDS meter reading costs were also included within this balancing account.

[41] PG&E explains in Attachment 5, "Chapter 4 includes a forecast for $3.8 million to perform this meter-reading function. [Please note that, in response to Data Request DRA_151-07, PG&E has reduced this forecast to $3.2 million and will include this change in a future errata.]."

> least Year 3 of deployment before converting the ABS-billed accounts to the mass market system, since these accounts are generally the largest and most complex. At that time, PG&E expects all new billing processes to be in place, system interfaces to function smoothly and all unforeseen variables to be identified and resolved. Accordingly, the savings associated with interval metering and billing are expected to be realized beginning in Year 3 of deployment. [42]

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PG&E has identified that $2.711 million of the $6.452 million identified in Table 5-1[43] is savings from converting interval metered customers to its SmartMeter system are associated with meter reading and the remaining savings are related to billing functions.[44] Thus, counter to PG&E's claim in this general rate case PG&E did forecast meter reading and billing savings from converting interval customers to its SmartMeter system in A. 05-06-028.

The Commission should note that PG&E attempted to integrate these EDS customer-meters into its SmartMeter infrastructure in 2010, but failed because of resistance from its interval metered customers.

> Second, and more important, customers whose meters were part of a pilot project to convert the MV-90 meters to SmartMeters were dissatisfied with the experience. In January 2010, PG&E began to convert the MV-90 meters and found that the locations and configurations of these specialized meters required a significant amount of disruptive on-site construction work to enable the meters to connect to the SmartMeter communication network. As a result, in late 2010, PG&E decided that it would keep the remaining MV-90 meters in place unless a customer with an MV-90 meter requested a SmartMeter. At this time, PG&E does not plan to convert the remaining MV-90 meters to SmartMeters except in response to such customer requests."(PG&E Response to TURN #26.Q17, included as Attachment 5)

PG&E always envisioned converting these customers to its advanced metering infrastructure (AMI), but when it made this attempt its larger customers said they didn't like it. PG&E's reaction was to agree with its customers, turn a promised savings into a

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[42] A. 05-06-028, PG&E-3, Chapter 5, pp. 5-1 through 5-4 included as Attachment 9.

[43] Table 5-1 reports its costs and benefits in 2005 dollars.

[44] Response to TURN #26.Q17 included as Attachment 10.

cost, and burden its remaining customers with what is essentially the large customers' SmartMeter Opt out costs.

When residential customers requested to opt out of PG&E's AMI project, the Commission and interested parties expended considerable resources analyzing and litigating costs that would eventually turn into fees to be paid by the participants. But PG&E has decided on its own to socialize (ie charge all ratepayers) the costs for a large customer to opt out of the system. The Commission should not allow such discriminatory treatment between residential and non-residential customers.

In sum, PG&E has reduced its SmartMeter Deployment costs by not deploying SmartMeters to the large customers that are served by PG&E's Energy Data Services Group (EDS). They saved those costs, not through efficiencies, but by inappropriately and unilaterally deciding to reduce the scope of their deployment. .

Therefore, the Commission should reject PG&E's proposal and reduce 2014 meter to cash expenses by the portion of $3.2 million associated with reading the MV-90 meters. If the Commission does authorize this cost, it should instruct PG&E to treat it as a direct cost that would be allocated to the proper non-residential customer classes in the Phase 2 of this rate case.

2. Increased Field Disconnect/Reconnect Transactions for SmartMeter Opt Out Customers

PG&E requests an additional $2.118 million in test year 2014 to fund an increased number of manual disconnects of electric service from customers signing up for its SmartMeter Opt Out Program (SMOOP). Under this scenario, PG&E is unable to use the SmartMeter to remotely disconnect electric service and must send a field service technician to manually disconnect and/or reconnect service. TURN does not disagree that opt out customers will cause a need for manual disconnect and reconnects, but PG&E's forecast of SMOOP customers is highly inflated and inconsistent with both recorded subscription levels and its position in its SMOOP proceeding (A. 11-03-014).

PG&E based its request for $2.118 million in disconnect/reconnect on a forecast of 200,600 SMOOP customer meters.[45] PG&E assumes that 4.50% of those meters (10,533) will cause the need for a manual disconnect and 79% of those meters customers (8,342) will then require a field reconnect. PG&E then multiplied those two figures by its unit cost forecast--$101.82/unit per field disconnection and $125.35 per field reconnection.[46]

As discussed in Section A (concerning meter reading costs) above, PG&E's forecast of opt-out participation is wildly inconsistent with actual participation rates, and totally at odds with PG&E's own forecast in the Opt-Out proceeding. For all the reasons discussed above, TURN recommends a more realistic forecast of 40,000 opt-out participants.

Thus, starting with 40,000 customers and using PG&E's other assumptions in WP 4-17 results in an increase of 1,800 disconnections from SMOOP customers. Assuming that 79.2% of disconnection customers will require a reconnect (1,426 SMOOP customers) and multiplying these two figures by PG&E's assumed unit costs results in a total cost of $361,975 for the increased volume of disconnect/reconnects that will occur in 2014. The Commission should reduce PG&E's request for MWC IT by $1.756 million.

3. Revenues from SmartMeter Opt Out Fees

PG&E's general rate case application has forecast tens of millions of dollars in serving the additional (meter reading, field service, etc.) needs of SMOOP customers. Unfortunately, it is unclear whether PG&E included the revenue offsets that would result from SMOOP fees. TURN admits that PG&E has identified offsetting revenues from SMOOP fees in its testimony[47] That table identifies a total of $20.713 million in electric and gas revenues from opt out customer charges. That figure is consistent with PG&E's forecast of 200,600 customers. TURN is concerned however that PG&E did not include these costs in its forecast of other operating revenues which may get lost in the shuffle and not be included in PG&E's calculation of final revenue requirements. PG&E's Table 10-2 (PG&E-5) does not reference PG&E-2, Chapter 17 (Other Operational

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[45] PG&E-5, WP 4-17

[46] PG&E-5, WP 4-17

[47] PG&E-5, Chapter 10, Table 10-2.

Revenues) but only references PG&E-2, Chapter 18. Neither Chapter 18, nor its supporting workpapers, provides sufficient detail to understand whether PG&E included the offsetting revenues from SMOOP fees or not. Normally, these types of offsetting revenues would have been contained in the Other Operating Revenues (OOR) exhibit, but PG&E does not reference that exhibit (PG&E-2, Chapter 17) and there is no mention in that chapter's testimony or supporting workpapers of revenue from SMOOP fees.

TURN has reviewed the SMOOP fee revenues contained in PG&E-5, Chapter 10 (Table 5-2) and believe they are consistent with PG&E's inflated SMOOP customer forecast. However, TURN believesthat the number of SMOOP customers will be significantly lower (40,000 customers versus 200,600 customers) and TURN has approximated the revenue from SMOOP fees for its lower customer forecast, using all of PG&E's other assumptions. That figure is $4.128 million and is based only on the currently adopted interim monthly fees ($5/month for CARE and $10/month for non-CARE customers). If the Commission adopts TURN's lower forecast of customer participation, it should also adopt its lower forecast of revenues from SMOOP fees.

Regardless of the level of fees, the important point is that the Commission must ensure that any and all fees recovered from opt out customers are used to offset the costs of serving opt out customers and not pocketed by the utility's shareholders. The Commission should direct PG&E to demonstrate that it has properly included offsetting revenues from SMOOP fees in its results of operation model and that those offsetting fees are based on the same SMOOP customer participation rates used to calculate incremental costs.

4. Customer Risk Analysis Software

PG&E reports that it will purchase a customer risk analysis software application in 2012 for a cost of $300,000.[48] That software enables one to draw on historical financial performance information for customers and provides models and other risk assessment tools. In a data request TURN asked whether PG&E had purchased that software in 2012 as it claimed it had in its testimony. In its response to that request PG&E explained that

[48] PG&E-5, Chapter 4, p. 4-33 and WP 4-12

it had not purchased the Customer Risk Analysis software in 2012 and was still considering whether it would purchase the software in 2013.[49]

PG&E has not made the necessary showing demonstrating that a) this purchase is necessary or b) it will actually occur. Given that PG&E has not purchased the software as it claimed it would in testimony, the Commission should reduce 2014 expenses accordingly and reduce the test year expense forecast for MWC IT by $300,000.

5. Revenue Assurance Protection

PG&E claims the need for 13 additional FTEs in its revenue assurance (RA) division at an incremental cost of $1.3 million (PG&E-5, p. 4-28). PG&E claims that deployment of SmartMeters has changed the method that individuals have used to accomplish energy theft which increases the need for PG&E to hire additional RA field staff. PG&E also states that a "segment of RA work now involves providing assistance to law enforcement involved with code enforcement and energy tampering and theft associated with other illegal activities," but provides no information about the percentage of RA work devoted to assisting law enforcementor when this assistance commenced.[50] The Commission should reject PG&E's request for 13 additional field RA personnel because PG&E has not provided the needed proof that they are necessary to meet its investigative case load levels.

In response to a TURN data request PG&E provided recorded information for 2008-2012 concerning the number of potential theft cases investigated, the number that were confirmed, the quantity of retroactive billings associated with confirmed theft cases and the amount of penalty money collected for those cases. [51] The data show that in 2008 PG&E investigated 7,583 cases and confirmed tampering in 3,329 of those cases. In 2012, PG&E investigated only 3,667 cases and confirmed tampering in 1,304 of those cases. While PG&E's response also indicates that the number of RA cases generated by SmartMeter operation increased over this same time period (consistent with the increase in number of SmartMeters), the data indicates that the total number of potential theft

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[49] TURN #26.Q5, included as Attachment 13

[50] PG&E-5, p. 4-28

[51] TURN #26.Q16.d, included as Attachment 14

cases investigated by RA is diminishing, not increasing. This is consistent with PG&E's original forecast that SmartMeters would provide a benefit by reducing meter theft.[52]

Without any quantitative demonstration of the "increase in work volumes" alleged by PG&E in support of its request,[53] it is unclear why an additional $1.3 million for revenue assurance personnel is needed at this time. The Commission should reduce PG&E's 2014 expense forecast for MWC IU accordingly.

6. Capital

PG&E requests $9.011 million in capital and $1.5 million in expense in 2014 to move two meter to cash (MTC) departments to new leased facilities in the Stockton area (PG&E, WP 4-43). PG&E claims it needs to move these departments to new facilities to accommodate the new hires it forecasts for the Billing and Credit operations departments. In particular, PG&E forecasts it will have to expand these facilities to accommodate 141 additional FTEs in the Billing department as well as an additional 10 FTEs in the Credit Operations department.

The Commission should reject this funding request in its entirety because it is based on accepting PG&E's forecast of new hires for these departments. As previously discussed, TURN opposes PG&E's proposal to hire an additional 188 FTEs to manually analyze pre-billing interval data. Thus, PG&E is actually in a position of having 37 freed-up workspaces (188 minus 141) to accommodate any other additional hires. The Commission should therefore reduce PG&E's capital request in 2014 by $9.011 and its expense forecast by $1.5 million.

D. Metering—Chapter 5

1. Meter Maintenance

PG&E forecasts that its gas meter (SmartMeter modules) maintenance expenses will increase by $1.23 million and electric meter maintenance will increase by $6.395 million in 2014. PG&E claims the factor is the result of an increased number of gas modules deployed as well as an increased number of gas modules that can be remediated rather

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[52] A. 05-06-028, PG&E-3, p. 3-3 and 3-4 included as Attachment 15.

[53] PG&E-5, p. 4-28

than replaced. PG&E also increased its average fix time per unit to incorporate an average of an additional 5 minutes per unit, because it is encouraging its field technicians to provide additional customer outreach and answer any customer inquiries on site. [54]

TURN adjusts these figures using the meter maintenance costs that PG&E provided in its original AMI filing (A. 05-06-028) and its AMI upgrade filing (A. 07-12-009), escalated to test year dollars. In both of those proceedings, PG&E claimed that gas and electric meter maintenance for its advanced meter infrastructure would cost significantly less than what it now claims. In its original AMI filing in 2005, PG&E claimed it would only cost $37.91/field visit to maintain and fix a gas meter module.[55] In this proceeding PG&E claims that it will cost $112/to fix that same gas meter module.[56]

PG&E's AMI Upgrade Proceeding (A. 07-12-009) is the best source for including the dollars per unit maintenance costs for electric meters since the upgrade reflects the current electric meter technology. In that proceeding, PG&E claimed that it would cost $85/unit, escalated by 3.3% per year, to maintain and fix a solid state electric meter.[57] In comparison, PG&E now claims it will take 1.4 hours to maintain an electric meter at a cost of $182/hour—or $255/unit. TURN recommends that as a matter of fairness the Commission hold PG&E to its word and adopt the maintenance costs PG&E had promised earlier. Indeed, the Commission authorized the original AMI and the AMI upgrade funding based on a promise that these projects had some level of operational cost-effectiveness. That level of cost-effectiveness has already been seriously reduced by PG&E's inability to complete the project. Commission should not allow further degradation of that promised cost-effectiveness by allowing PG&E to keep diluting operational savings while increasing previously promised AMI costs.

PG&E's original AMI application did not mention adjusting its gas meter maintenance ($37.91 in 2005 $) costs for inflation. TURN, to be conservative in its 2014 forecast, has

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[54] PG&E-5, WP 5-31

[55] A. 05-06-028, PG&E-3, Chapter 3, pp. 3-5 and 3-6, included as Attachment 16

[56] PG&E-5, WP 5-31

[57] A. 07-12-009, PG&E-3, p. 3-5 and 3-6, included as Attachment 17

escalated those 2005 dollars to 2014 nominal dollars using PG&E's proposed 3.3% escalation rate from A. 07-12-009.[58] The result reduces PG&E's overall request for SmartMeter maintenance relative to 2011 recorded costs, from an increase of $7.622 million (PG&E-5, WP 5-31) to an increase of only $2.792 million. The Commission should reduce PG&E's 2014 expense forecast by $4.80 million.

III. Shared Services Corporate Real Estate Costs

In this section TURN recommends adjustments to PG&E's forecasts of costs for corporate real estate investments. We discuss PG&E's corporate real estate (CRE) investments undertaken by this department as explained in the utility's shared services exhibit.[59] TURN also presents funding recommendations for CRE facilities that appear outside of the shared services testimony (such as in the exhibits for PG&E's gas distribution, electric distribution and other departments).[60]

In this application PG&E forecasts significant capital investment in real estate projects both for a) shared service projects and b) facilities for specific operating departments. PG&E requests $81.602 million in capital and $32.590 million in expense for 2014 projects discussed in its shared services exhibit,[61] while it requests $170.09 million in capital and $9.99 million in expense for facilities devoted to a specific PG&E department (i.e., gas distribution, electric distribution, etc.).[62]

PG&E's real estate costs are systematically over-inflated, in large part because they are based on unreasonable unit cost assumptions. PG&E generally used a consistent set of unit costs assumptions and built the forecast of each project's cost estimate on a

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[58] TURN believes that 3.3% year inflation since 2005 is inflated relative to recorded inflation. However, to be conservative TURN uses the same escalation levels proposed by PG&E in its AMI testimonies.

[59] PG&E-7, Chapter 6

[60] The exhibit for gas distribution contains its own chapter for real estate investments because PG&E forecasts fairly large investments in real estate for its gas departments. See PG&E-Exhibit 3, Chapter 12

[61] PG&E-7, Chapter 6, Tables 6-40 and 6-41

[62] TURN #47. Attachment to Q1 included as Attachment 18. This response lists all projects greater than $1.0 million that are not contained in PG&E-7.

"bottoms up" basis. PG&E's basic method of estimating costs using a consistent set of unit costs is not unreasonable in theory. However, the unit costs themselves need to be reduced, which produces a corresponding reduction to PG&E's forecasts. For instance, PG&E used a figure of $560 per square foot as the basis of its costs for building office space. This figure is over twice the national average price of building a brand new medical office building, the most expensive office building to construct according to RS Means, the nationally recognized cost estimating company.[63]

PG&E used unit cost estimates it obtained from its real estate contractor, Cushman and Wakefield (C&W). The unit costs estimates provided by C&W are quite high relative to other cost estimates readily available from other estimating sources, and the reasons for the high level of the estimates are inadequately documented or explained. There also appears to be an inherent conflict of financial interest in using C&W unit costs estimates because C&W receives a five percent "project management" share of all of PG&E's capital investments, as shown in PG&E workpapers.[64] Thus, the higher the cost estimate provided by C&W to PG&E, the higher the cost forecast of project management fees paid to C&W.

In addition to high unit costs, for each proposed project PG&E applies cost adders for program management, engineering and testing, and other overhead costs that are also highly inflated relative to its recorded costs for these same overheads. For instance, PG&E applies 10% to 15% engineering and testing cost adders to a large number of projects despite the fact that the 2009-2012 recorded engineering and testing costs amounted to only 1.4% of all capital investments.

Using more reasonable unit costs and overhead adder estimates, TURN adjusted PG&E's a) bas building and b) seismic building upgrades on a macro. In evaluating PG&E's real estate "solutions" projects, TURN generally made its generic cost adjustments for each individual project with no recommendations on the reasonableness of the project. However, TURN found a handful of these "solutions" projects to be ill-

[63] PG&E-7, Chapter 6, p. 6-5.

[64] PG&E-7, WP 6-649

planned and unreasonable. TURN's primary recommendation is authorization of zero funding for these programs. However, TURN also provides the Commission with an alternative funding recommendation, in the event the Commission does not agree with TURN's primary recommendation.

Finally, TURN analyzed and evaluated the proposed real estate projects for individual operating departments, most of which had to do with PG&E's proposed real estate projects for its gas department. For many of the projects, TURN only adjusted the cost forecast using its more reasonable unit cost assumptions. For some projects, like the new San Ramon Gas Headquarters at the Bishop Ranch facility, TURN allocated the costs to transmission and distribution functions to reflect the functions of the personnel housed in those facilities. In a handful of cases, we recommend zero project-funding because the project is ill-planned and unreasonable (i.e. Gas Control Center Hot Back-up Project).[65]

A. Corporate Real Estate Projects From PG&E's Shared Services Exhibit (PG&E-7, Chapter 6)

1. The Commission Should Reject PG&E's Excessive Cost Adders for Project Management and Engineering/Inspection/Testing Costs

In this section, TURN discusses the project management and engineering/inspection/testing cost adders PG&E applies to real estate cost estimates. TURN strongly opposes PG&E's proposed cost adders as excessive and not comparable to its recorded costs for these functions. PG&E assumed engineering would add 10% to 15% of jobs (where applied), and project management would add an additional 10% to project costs.

PG&E's cost adders are based on "judgment" by PG&E personnel and not on recorded costs. In response to discovery, PG&E provided 2009-2012[66] recorded data on its facility costs, broken out into direct construction costs, PG&E construction labor, PG&E engineering/testing/inspections, and PG&E and contractor project management costs. TURN calculated those recorded cost adders and presents the

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[65] PG&E-3, Chapter 12, WP 12-33 to 12-35.

[6666] TURN #34.Q1Attachment, included as Attachment 19.

engineering/testing/inspection and project management adders in the following Table 2.

Table 3: Proposed and Recorded Cost Adders

Cost □ð Adders	2014 □ð GRC	□ð Record 2009ㄱ□괋Ġ
PG&E/Vendor □ð Project □ð Manage	10.00%	1.70%
Engineering/Testing/Inspect	10% □ð to □ð 15%	1.40%

As the table indicates, PG&E's forecast of cost adders is significantly greater than its recorded cost for the activities covered by such adders. PG&E recorded engineering/testing/inspection costs constituted only 1.4% of its capital investments, while it requests 10% to 15% cost adders in this application. Recorded project management costs, in their entirety, are only 1.7% of the average total project costs. PG&E assumes all project costs will require a 5% increase for PG&E project management as well as an additional 5% increase for contractor management.

The first project contained in PG&E's request for Base Building expenditures shows how PG&E's generic cost adjuster is unnecessary. PG&E's "Exterior Water Proofing for 77 Beale Street" project entails removing existing caulk between the exterior granite panels of the building, and re-caulking those panels.[67] The contractor provided a cost estimate of $2.038 million to complete the job, and PG&E then adds an additional $203,861 adder to engineer, test, and inspect the re-caulking of a building. It's hard to believe that PG&E is going to need close to a quarter million dollars to engineer and inspect a simple (albeit large) re-caulking job. PG&E has presented no evidence that would substantiate its assumption that it will incur costs at that level. The Commission should reject this inflated cost adder and instead use PG&E's recorded cost adder of 1.4%.

PG&E's Base and Seismic Building program costs also include a total adder of 10% adder for project management costs—5% for PG&E and 5% for the contractor. This again is simply unreasonable in the face of the recorded total project management costs (PG&E and contractors') over 2009-2012, which amounted to $2.354 million for $135.272 million in direct construction costs or only 1.7% of total construction.

[67] PG&E-7, WP 6-284

The Commission should also reject PG&E's assumption that every base and seismic building project needs both a project manager from PG&E and a project manager from the contractor. Indeed, many of the cost estimates already include engineering and project management costs in the original estimate provided to PG&E. For instance, PG&E's estimate for its "Beale Street Exterior Waterproofing Project" is based on a contractor estimate that already includes a 10% adder for "general conditions".[68] "General conditions" captures the contractor's overhead costs that include engineering and construction management.[69] Thus it seems that PG&E's 10% adder for engineering and project management costs is both too high and would double count costs that are subsumed in the underlying project estimate.

The Commission should reject PG&E's request for engineering and project management costs based on its proposed adders. Instead, it should adopt engineering/testing/inspection and program management cost adders based on PG&E's 2009-2012 recorded costs and only apply those overheads to PG&E's cost estimates.

TURN adjusted PG&E's forecast of a) base building and b) seismic building project costs using recorded overhead adders.

Table 4:
TURN Adjustment to Base and Seismic Building Costs (Nominal $)

PG&E □ð Total □ð Base □ð and □ð Seismic □ð Costs	**$ 138,798,634**
PG&E □ð Project □ð Management □ð	$ 11,154,421
PG&E □ð Engineer/test/inspect	$ 10,178,911
TURN □ð Project □ð Management □ð	$ 1,746,261
TURN □ð Engineer/test/inspect	$ 1,422,221
Project □ð Management □ð Reduction □ð	$ 9,407,160
Engineer/test/inspect □ð Reduction □ð	$ 8,756,691
Total □ð Reduction □ð	$ 18,163,851
TURN □ð Recommended □ð Base □ð and □ð Seismic □ð Costs	**$ 120,634,783**
Percent □ð Reduction □ð to □ð Base □ð Building □ð	**15%**

[68] PG&E-7, WP 6-285

[69] See Attachment 20 from Reed Construction. That attachment provides the standard definition of the cost components contained in General Conditions [Requirements].

As shown in that table, PG&E forecasts total capital expenditures of approximately $124.0 million in capital spending (2014-2016) for its base ($99.47 million) and seismic ($20.6 million) building programs. Of that amount PG&E requests project management costs of $11.254 million and engineering costs of $10.176 million. In comparison, TURN has calculated total project management costs of $1.74 million and $1.42 million for total engineering costs. Thus, TURN reduced PG&E's forecast of project management and engineering costs by $18.1268 million for a total base and seismic building cost estimate of $105.5 million—or a 15% total cost reduction to these programs. This 15% reduction should be applied to each year's forecast of base and seismic building costs.

2. *Unit Costs That Form the Basis of PG&E's Facility Cost Request*

PG&E requests $128.5 million in capital and $5.119 million in expense for its proposed "Real Estate Solutions" Program in 2014-2016. PG&E claims this program is necessary to refurbish or replace office and service center buildings and to correct condition deficiencies, improve functionality, implement workplace improvements, and meet current business needs.[70]

TURN provides its adjustments to PG&E's proposed "solutions" projects in this section. TURN has done a detailed analysis of the vast majority of projects contained in this exhibit and finds that PG&E has systematically inflated the unit costs it uses to estimates its facility investments. PG&E uses close to 20 different unit costs that include tenant improvement costs, information technology (IT) costs, moving costs, etc., to estimate on a "bottom up" basis the forecast of investment costs for each individual facility project.

Some of the cost estimates were based on a **small sampling** of PG&E recorded data.[71] Other unit costs were provided to PG&E by its real estate contractor and business associate Cushman and Wakefield (C&W). The estimates provided by C&W to PG&E were supported by little, and sometimes no, documentation. Most of the cost estimates were provided to PG&E in spring of 2012. And each C&W estimate is clouded by the financial stake C&W appears to have in the cost estimates.

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[70] PG&E-7, Chapter 6, p. 6-66

[71] Employee moving, IT, and furniture and fixture costs were estimated using this method.

One of the best examples of these inflated unit costs is the cost for an office building. PG&E assumes it will cost $560 per square foot to build most all of its office buildings.[72] In comparison, RS Means reports that the national average for constructing a single-story office using unionized labor was $188 per square foot.[73] PG&E's proposed $560 per square foot is simply not credible, absent some explanation of why the estimated cost is so high.

PG&E uses close to 20 different generic unit cost estimates to calculate its corporate real estate costs.[74] With few exceptions, these unit costs seem excessively high.

The following table reports the unit cost estimates used by both TURN and PG&E and provides the source of those estimates where available. TURN describes its proposed unit costs below.

Table 5:
PG&E versus TURN Unit Cost Estimates

		PG&E		TURN		TURN
Cost Type	*Unit*	*Unit*	*Cost*	*Unit*	*Cost*	*Source*
Construct New Office	$/SF	$ 560.00		$ 188.00		RS Me
Construct Warehouse	$/SF	$ 200.00		$ 83.00		RS Me
Construct Non-Office	$/SF	$ 200.00		$ 66.00		Prorated
Information Technlogy (IT)	$/SF	$ 250.00				
Information Technlogy (IT)	$/FTE			$4,903		TURN
Construct Shop	$/SF	$ 200.00		$ 83.00		RS Me
Tenant Improvement	$/SF	$ 125.00		$ 42.47		Colliers
Tenant Improvement (Ops Building)	$/SF	$ 78.00		$ 42.47		Colliers
Tenant Minor Improve	$/SF	$ 85.00		$ 42.47		Colliers
Building Demolition	$/SF	$ 8.00		$ 6.68		RS Me
Furniture	$/SF	$ 32.86		$15 to 20		Brandeisk
Furniture	$/employee			$ 3,000.00		Brandeisk
Moving Costs	$/employee	$ 1,400.00		$ 600.00		Brandeisk
Paving Cost High	$/SF	$ 11.00		$ 2.57		Building
Paving Cost Low	$/SF	$ 5.49		$ 2.57		Building
(a) No comparable $/sf for non-office. Only one non-so TURN prorated using TURN office $/PG&E office $						

[72] PG&E-7, WP 6-935

[73] Attachment 21

[74] PG&E-7, WP 6-890 through 6-964

a. Discussion of Unit Costs

i. Construction of New Office Building

As previously discussed TURN used a unit cost estimate of $188 per square foot to calculate office construction costs derived from RS Means. That estimate is a 2013 national US average cost for building a new single-story office building using seven different varieties and combinations of building materials and techniques.[75] Each combination included two cost estimates which were based on a) union labor costs and b) non-union labor costs. TURN used the higher union labor cost estimate for its adjustments for all of RS Means' estimates.

ii. Warehouse Costs

PG&E used $200 per square foot to estimate warehouse construction costs.[76] TURN used $83 per square foot also derived from RS Means and is based on 11 different building configurations and union labor costs.[77] PG&E shop facility cost estimates are also based on its warehouse costs. RS Means data did not provide a specific breakout of shop construction costs so TURN also used its warehouse unit costs to calculate shop construction costs.

iii. Information Technology (IT) Costs

PG&E assumes $25 per square foot for information technology costs (IT).[78] They are based on recorded costs ($4,993 per employee) for 7 different projects, some are recorded and some are forecast.[79] PG&E corrected this figure to $4,903 per employee in TURN #47.Q11 and this is the figure that TURN uses.[80] PG&E converted its dollar per employee costs to a "dollars per square foot" basis using a conversion factor of 200 square feet per employee.

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[75] See Attachment 21

[76] PG&E-7, WP 6-946

[77] Attachment 22

[78] PG&E-7, WP 6-960

[79] TURN #47.Q11 included as Attachment 23

[80] In response to TURN #47.Q11, PG&E explained its proposed $4,993 per employee IT cost was based on a calculation error. It provided the corrected figure of $4903 per employee, which is the figure used by TURN. Although PG&E admitted it erred in its calculation, it claims its original and corrected values are so similar that they require no corrections.

TURN strongly opposes PG&E's conversion calculation, because it systematically inflates IT costs for any facility for which there are more than 200 square feet per employee. A good example is illustrated in PG&E's estimates for the Fresno Gas Load Center Project.[81] That project assumes that IT costs will be required for 15 employees occupying 9,083 square feet. PG&E estimates total IT costs of $257,617[82] for this project based on the square footage, a figure that translates into $17,174 per employee in IT costs, although PG&E claims it based its costs on $4,993 per employee. If PG&E had estimated total IT costs based on the forecasted FTEs, it would have come up with a more reasonable estimate rather than one that suggests 50 FTEs in a facility that is expected to house 15. The Commission should reject PG&E's method of calculating IT costs.

3. Tenant Improvement Costs

PG&E used $125 per square foot for office-related tenant improvements and $85 per square foot for minor tenant improvements.[83] PG&E also uses a unit cost of $78 per square foot for refurbishing operations buildings.[84]

TURN used $42.47 per square foot based on estimates provided by a Senior Vice President with Colliers International the Commercial Real Estate Company.[85] That unit cost was calculated as the average of the mid-range of tenant improvement cost estimates for a Class A/B+ building. TURN used this figure to adjust all of PG&E's proposed tenant improvement costs.

4. Demolition Costs

PG&E used $8 per square foot to calculate its demolition costs.[86] That figure is based on a cost estimate for a single project that includes hazardous materials abatement costs.

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[81] PG&E-7, WP 6-702 and 6-707

[82] TURN notes that PG&E's estimate of costs for the Fresno Gas Load Center project are mathematically incorrect. Multiplying $25 by 9083 square feet results in total IT costs of $227,075. However, PG&E workpapers calculate IT costs for the same square footage at $257,617 (PG&E-7, WP 6-707).

[83] PG&E-7, WP 6-916 and 6-926

[84] For PG&E-7, WP 6-667

[85] Attachment 24

[86] PG&E-7, WP 6-956

TURN used $6.68 per square foot despite the fact that TURN has sources that show demolition costs in the range of $1.22 per square foot for demolition of a 1 to 3 story office building in San Francisco.[87]

5. Furniture Costs

PG&E uses $32.66 per square foot to calculate its furniture costs. That estimate is based on a unit cost of $6,532 per employee converted to dollars per square feet using 200 square feet per employee.[88] PG&E's conversion of furniture costs to dollars per square feet suffers from the same deficiency as does its IT costs (as earlier discussed).

TURN used a furniture cost of $3,000 per employee taken from two web sites that provide a calculator for office furniture.[89] Both sites provided furniture costs in the range of $3,000 to $5,000 per employee. TURN used the low range of furniture costs because we think it is imprudent to assume PG&E needs all new furniture every time it makes an investment in real estate. We also apply it to PG&E's projects using a dollar per employee adjustment, consistent with our proposed treatment of IT costs.

6. Employee Moving Costs

TURN also takes issue with PG&E's moving costs.[90] PG&E's estimate is based on two moving projects that moved only 28 employees in total. One project averaged $2,042 per employee and the other averaged $613 per employee. PG&E simply averaged the two projects.

TURN used a web-based calculator provided by a company that specializes in providing firms with commercial moving services.[91] That estimator calculates moving costs at $600 per employee.

7. Paving Costs

PG&E uses $5.49 per square foot to estimate its paving costs.[92] That figure is based on a cost estimate provided by a contractor for a single project in Livermore, California. That

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[87] Building Journal Cost Estimator included as Attachment 25

[88] PG&E-7, WP 6-961

[89] Estimates from Alfred Williams and R. Brandeisky included as Attachment 26.

[90] PG&E-7, WP 6-913

[91] Provided at www/alfredwillams.com, included here as Attachment 27

unit cost is a contractor estimate and is not based on recorded costs. TURN used a figure of $2.73 per square foot to calculate paving costs based on the BuildingJournal.com. Those paving costs are calculated on a location specific basis and TURN used the most comparable location which happened to be Oakland, California.[93]

8. TURN's Adjustments to PG&E's Proposed Real Estate Solutions Program

PG&E'S Real Estate Solutions Program is made up of 23 different projects. Because of the large number of projects, this testimony will not verbally describe each adjustment. Instead, the results of applying TURN's adjustments described in the preceding sections to each of the different projects are contained in Table 5.[94]

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[92])PG&E-7, WP 6-958

[93] Online cost calculator for paving costs in Oakland, California. Attachment 28

[94] Table 5 does not contain TURN's recommendations for the Fairfield Data Center Redundant Power Feed Project (PG&E-7, WP 6-870). TURN did not adjust the costs down, but did allocate a portion of those costs to transmission according to the equipment PG&E's states it is installing. TURN's recommendations are provided in the following section.

Table 6:
TURN's Recommended Funding for CRE's Solutions ('000 Nominal $)

	PG&E		TURN		TURN Reduction	
Project	*Capital*	*Expense*	*Capital*	*Expense*	*Capital*	*Expense*
Bakersfield Office	$ 3,331	$ 570	$	$	$ 3,331	$ 570
Chico Office	$ 3,818	$ 1,936	$ 1,580	$ 801	$ 2,238	$ 1,135
Fresno Office	$ 4,136	$ 2,370	$ 1,700	$ 974	$ 2,436	$ 1,396
Merced Office	$ 2,232	$ 633	$ 916	$ 260	$ 1,316	$ 373
Rocklin Office	$ 1,018	$ 544	$ 338	$ 181	$ 680	$ 363
San Luis Obispo Office	$ 3,589	$ 1,836	$ 1,289	$ 659	$ 2,300	$ 1,177
Exit San Ramon		$ 182		$ 60	$	$ 122
Rebuild Antioch SC	$ 8,768	$ 1,420	$ 2,787	$ 451	$ 5,981	$ 969
Rebuild Auburn SC	$ 6,826	$ 470	$ 5,021	$ 346	$ 1,805	$ 124
Edenvale SC	$ 6,338	$ 2,836	$ 1,365	$ 611	$ 4,973	$ 2,225
Rebuild Fresno Gas Center	$ 7,043	$ 551	$ 2,483	$ 194	$ 4,560	$ 357
Rebuild Livermore SC	$ 10,078	$ 999	$ 1,709	$ 169	$ 8,369	$ 830
Rebuild Modesto SC	$ 4,610	$ 397	$ 1,490	$ 128	$ 3,120	$ 269
Rebuild Napa SC	$ 1,942	$ 384	$ 456	$ 90	$ 1,486	$ 294
Rebuild San Luis Obispo SC	$ 12,013	$ 1,655	$ 3,604	$ 496	$ 8,409	$ 1,159
Rebuild Ukiah SC	$ 5,310	$ 839	$ 1,874	$ 296	$ 3,436	$ 543
Relocate Quincy	$ 6,165	$ 555	$	$	$ 6,165	$ 555
Relocate Quincy SC (a)	$ 6,165	$ 555	$ 2,574	$ 232	$ 3,591	$ 323
Relocate Clearlake SC (a)	$ 6,312	$ 892	$	$	$ 6,312	$ 892
Relocate Clearlake SC (a)	$ 6,312	$ 892	$ 2,761	$ 390	$ 3,551	$ 502
Relocate Walnut Creek SC	$ 2,360	$ 444	$	$	$ 2,360	$ 444
Refurbish 7 floors	$ Beal	$ 765	$ 3,503	$ 765	$ 2,000	$
Rebuild 16th floor	$ Beal	$	$ 1,286	$	$ 6,782	$
Restore 3rd Floor	$ Beal	$ 1,016	$ 1,116	$ 166	$ 6,658	$ 849
(a) TURN's Alternate Recommendation						
Totals						
TURN Primary	$ 128,539	$ 50,119	$ 31,623	$ 2,005	$ 84,439	$ 2,937
TURN Alternate	$ 128,539	$ 50,119	$ 36,948	$ 2,087	$ 79,014	$ 2,885
Percentage Reduction	**Capital**	**Expense**				
Primary	75%	60%				
Alternative	71%	59%				

As Table 5 shows, PG&E expects to spend $128.6 million in capital and $5.119 million in expense (2014-2016) to fund its real estate "solutions" projects. TURN finds that PG&E's cost estimates are systematically inflated and instead primarily recommends reducing that cost estimate by $84.4 million in capital and $2.937 million in expense. Our primary recommendations include zero funding for the Quincy Service Center Relocation and the Clearlake Service Center Relocation (discussed below). If the Commission does not

reject these two projects outright, the Commission should then reduce PG&E's proposed capital spending $79.1 million and its expense forecast by the same $2.9 million, which reflect reduced (but not zero) funding for the two relocation projects.

Because these projects are planned for the 2014-2016 period, it is more efficient and easier for the Commission to adjust PG&E's forecast downward by the percentages provided here, which means 75% reduction to annual capital forecasts and a 60% reduction to all expense forecasts for the CRE Solutions Projects. In the alternative, if the Commission does not fund the Quincy and Clearlake service center relocations at zero, the Commission should adjust PG&E's capital forecast downward by 71% and expense reduction of 60%.

9. The Bakersfield Office Project

PG&E's request for investing in its Bakersfield Office are contained under multiply real estate programs. Under the base building program, PG&E requests $1.22 million in capital to install an elevator in 2016.[95] Under its seismic building program PG&E requests $1.950 million of expense in 2016.[96] Finally, under its "solutions" building program, PG&E requests $3.331 million in capital (2015) and $570,000 in expense (2015-2016).[97] The total request amounts to $5.41 million in capital and $2.827 mm in expense (2013-2016).

The Commission should reject all forecasts of costs for the Bakersfield facility because PG&E has already completed its modernization of this facility. Any funding authorized for this project should be limited to its recorded costs for 2010-2012.

The architect and engineering firm Teter AE explains that it completed all work on the 26,300 square foot Bakersfield office on its web site.[98]

> "Modernization of PG&E's Bakersfield Service Center Operations and Construction Buildings include; seismic upgrades, ADA improvements, and interior workplace enhancements. PG&E's workplace was renovated

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[95] PG&E-7, WP 6-328

[96] PG&E-7, WP 6-511

[97] PG&E-7, WP 6-582

[98] http://teterae.com/projects/energy/pge-bakersfield-renovation/ included as Attachment 29.

while their critical operations continued throughout the construction period."

PG&E also provided information explaining it completed this project, but only through discovery. It spent $3.532 million from 2010-2012 and completed the project.[99] PG&E spent $812,000 in 2010, $2.765 million in 2011, and $46,000 in 2012. The costs recorded in 2010 are accounted for in 2011 general rates and the 2011 recorded costs should be booked to construction work in progress (CWIP) for that year. For 2012, the Commission should adjust PG&E's recorded capital costs upward by $46,000. The Commission should reject all other costs requested by PG&E for this project.

The recorded costs for the Bakersfield Office provide a valuable insight into the actual costs it takes to manage a project and engineer and test a project. Those costs are a mere fraction of the costs PG&E claims it needs to manage and engineer a real estate project.

PG&E claims it would cost $288,295 (CRE solutions), $92,686 (base building), and $152,226 (seismic building) to manage the Bakersfield office work. In total this amounts to $533,207.[100] In contrast, the actual costs for managing all of these projects amounted to a mere $27,000.[101]

PG&E also forecast that the Bakersfield office seismic project would cost 15% of that project's capital cost—or $198,555. In comparison, engineering for all aspects of the Bakersfield project was only $5,000—0.14% of total project costs.

These very substantial differences between forecast costs and recorded costs are not limited to the Bakersfield project, but are systematically littered throughout the CRE-related projects in PG&E's application.

10. Relocate Canyon Dam and Quincy Service Centers

PG&E proposes to consolidate the operations located at the Canyon Dam Service Center and at the Quincy Service Center and relocate them to a new location in Greenville.[102] PG&E proposes to purchase and site-prepare 5 acres and construct a 5,000 square foot

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[99] TURN #34.Q1 Attachment included as Attachment 19..

[100] PG&E-7, WPs 6-328, 6-510, 6-580

[101] Attachment 19

[102] PG&E-7, WP 6-774

building, separated into 500 square feet of office space and 4,500 square feet of non-office space. PG&E requests $6.165 million in capital and $55,000 in expense for 2015 and 2016. The Commission should reject this project in its entirety. PG&E's justification for this project is based on a mischaracterization of customer growth in Plumas County and will most likely lower customer service levels, if completed.

PG&E proposes a $6.165 million project that relocates 11 employees—an average cost of $563,395 per employee. While a dollar per employee is not the only measure of reasonableness, in this case it certainly highlights the need for some serious justification. PG&E's testimony does not provide that justification.

Instead, PG&E provides the following justification,

> "…customer growth in Plumas County has occurred away from the service centers. As a result, the Canyon Dam and Quincy service centers are not in the best locations to support current operations and customers. Additionally, both service centers are small, old, underutilized and in need of maintenance." (PG&E-7, WP 6-774)

PG&E's claim that customer growth in Plumas County justifies the need to pull out of Quincy seems to be a stretch, to put it nicely. Plumas County has had a stable population of 20,000 for over a decade.[103] The US Census Bureau recorded a population of 20,824 in 2000 and 20,122 in 2009. The Bureau's estimate for population in Plumas 2012 is 19,399 which is a further shrinking of the population from the 2010 estimated population level of 20,007. [104]

There is also no justification for the size of the project. The vast bulk of project costs ($3.574 million) are for site preparation for a 5 acre site. PG&E has not explained why it needs such a large facility or so much land.

Finally, while PG&E's customers in Greenville may welcome a new service center, PG&E's customers in Quincy will now have to drive 22 miles to Greenville and Canyon Dam customers will have to travel over 9 miles to reach a PG&E service center.

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[103] http://california.hometownlocator.com/census/

[104] http://quickfacts.census.gov/qfd/states/06/06063.html

PG&E has not provided an adequate justification for either the scope of the project nor the project itself. The Commission should reject it in its entirety. However, if the Commission does not reject this project, it should adopt TURN's alternative cost adjustments contained in Table 5.

11. Relocate Clearlake and Lakeport Service Centers

Similar to the previous project, PG&E proposes to consolidate operations at its Clearlake Highlands Service and theLakeport Service Center into a single leased facility in downtown Clearlake.[105] In addition, PG&E intends to develop another 5 acre site that includes site preparation and grading costs of $3.45 million out of a total project cost of $6.4 million.

PG&E's justification for this project is not sufficient for increasing ratepayer costs by $6.4 million.

> "The Clearlake and Lakeport service centers are located on opposite ends of Lake Clearlake. Both service centers are underutilized."[106]

The service centers have always been located on opposite sides of Lake Clearlake, which by no small coincidence, just happens to be where the Clearlake's population has been. Thus, PG&E's solution would ensure that its customers in Lakeport have to drive to the other side of the lake. It is hard to see how such a change could constitute an improvement in customer service.

In addition, PG&E's "resolution" for dealing with underutilized service centers is to spend unreasonable amounts of ratepayer funds building an even larger facility that has no justification by PG&E. There is no mention of the need for an expanded yard for operations or construction.

The Commission should reject PG&E's funding request for this project, because it is ill-conceived and imprudent. In the event the Commission does not reject this project, it should limit funding to TURN's proposed costs for this project contained in Table 5.

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[105] Reference to a "downtown" Clearlake is a bit of a misnomer on PG&E's part.

[106] PG&E-7, WP 6-777

12. Relocate Walnut Creek Service Center to Concord Service

PG&E proposes to consolidate operations currently located at the Walnut Creek Service Center to the Concord Service Center. The project includes restacking the office space at the Concord facility to accommodate 8 additional employees. PG&E forecasts $237,000 in capital and $44,000 in expense in 2014 to complete this project. TURN recommends zero funding for this project. TURN does not oppose this project but believes it should be funded with the cost savings resulting from abandoning the Walnut Creek facility.

PG&E forecasts that it will avoid $228,000 in 2014 when it shuts down the Walnut Creek Facility.[107] This covers all but $53,000 of PG&E's proposed moving costs for 2014. PG&E's forecasted costs for this project are excessive; based on a reasonable cost forecast, PG&E should be able to easily fund this project through its cost savings forecast. For instance, using TURN's unit cost for tenant improvements ($42.47 per square foot vs. PG&E-proposed $85 per square foot reduces construction costs by $84,825, more than enough to fund the net costs of $53,000. Cost savings from using a more realistic assumption for project management and IT costs would lower PG&E's proposed relocation costs even further.

In sum, the Commission should authorize zero funding for the Walnut Creek Service Center relocation project, because the project can be funded through the cost savings of abandoning the Walnut Creek facility. Indeed, the Commission should view this type of project as one that actually deserves the classification of a real estate "solution" because it has the potential to lower ratepayer costs.

13. Fairfield Data Center Redundant Power Feed

PG&E proposes to install a redundant 12 kV power feed to the data center to ensure there is a source of uninterrupted power. PG&E projects a cost of $6.601 million to complete the project. TURN does not have an opinion on the reasonableness of the project. However, this project entails some transmission-related costs that should not be included in this general rate case, because they are FERC-jurisdictional costs.

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[107] PG&E-7, WP 6-782

PG&E forecasts distribution costs of $2.3 million (distribution), $600,000 (transmission), and $2.220 million (substation) for the project.[108] TURN prorated this percentage to allocate the substation and all other related costs to distribution and transmission. The result of this calculation is to allocate $1.52 million of the $6.601 million to transmission and the remaining $5.081 million to distribution. The Commission should reduce PG&E's request for this project by $1.52 million.

B. Corporate Real Estate Projects Not Contained in the Shared Service Exhibit (PG&E-7)

All told PG&E forecasts it will invest over $446.7 million in capital (2012-2016), $170.1 million of that in test year 2014, and almost $10.0 million in expense in 2014 in real estate facilities used directly by specific PG&E divisions, such as gas and electric distribution, energy supply, customer care, etc.[109] TURN provides its recommendations for these projects in the following sections.

1. San Ramon Consolidated Gas Headquarters

PG&E intends on relocating employees and contractors from various Walnut Creek and San Francisco buildings into a single 250,000 square foot building in San Ramon. This project will involve the following tasks.

- Execute a lease for ten years for a single property,
- Relocate 700 employees predominantly from the Walnut Creek facilities
- Relocate 100 employees from the General Office,
- Provide full IT functionality,
- Close out existing Shadelands leases properties,
- Vacate PG&E-owned property at North Wiget Lane

PG&E forecasts that it will spend $16.3 million (2012) and $9.4 million (2013) in capital to complete this project in 2013. It also forecasts $958,000 in expense for both of these years ($1.916 million in expense total) and an additional $5.14 million in rent in 2014.[110] PG&E

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[108] PG&E-7, WP 6-870

[109] TURN #47 Attachment to Q1, included with this testimony as Attachment 18.

[110] PG&E-3, Chapter 12, WP 12-22 and 12-24

allocates the costs of future rent on a 60% capital/40% expense split. PG&E also books all of these costs to gas distribution.

TURN adjusts PG&E's cost forecast to reflect PG&E's recorded costs and also allocates these between gas distribution and gas transmission functions.

PG&E's cost forecast is significantly greater than its recorded cost for this project. PG&E forecast it would spend $16.3 million in capital in 2012 and it only spent $9.4 million in 2012.[111] PGE& recorded non-rent expenses of $1.26 million in 2012 and forecasts an additional $757, 000 in non-rent expenses for 2013.

TURN proposes that PG&E's 2013 capital forecast for this project be prorated by 2012 recorded capital costs divided by 2012 forecast capital costs. That adjusts PG&E's 2013 capital cost forecast down to $3.975 from PG&E's proposed $6.908 million.

TURN opposes PG&E's proposal to charge all of these costs to its gas distribution customers because the personnel that will be operating out of this facility are (and will be) chiefly working on gas transmission projects. Therefore, the capital costs and ongoing rent costs should be booked between gas distribution and gas transmission functions in direct proportion to the percentage of employees split between transmission and distribution.

PG&E reports that it will house from 835 to 856 employees in the new gas headquarters.[112] PG&E currently has 648 employees housed at the facility, with 518 of those FTEs dedicated to gas transmission operations and 130 FTEs dedicated to distribution activities. This alone could justify an 80%/20% transmission to distribution cost split. However, TURN used a more conservative assumption that the remaining number of spaces to be filled (208 FTEs based on full capacity at 856 employees) will be evenly split between distribution and transmission functions—leaving a total of 622 transmission-related employees and 234 distribution-related employees—resulting in a 73%/27% transmission to distribution allocation percentage.

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[111] TURN #47.Q12—full response and attachments included here as Attachment 30.

[112] PG&E-3, WP 12-23 reports the facility will house 835 employees while TURN #47.Q12 (Attachment 30) reports that the facility will house 856 employees. The current number according to PG&E is 648 employees.

Using this percentage, TURN allocated the San Ramon recorded capital and forecast expenses to transmission and distribution functions. TURN recommends only booking $2.580 million of its recorded 2012 capital costs to gas distribution and $1.086 million in adjusted forecast 2013 capital costs to distribution.

For test year 2014, PG&E forecasts net rental costs in 2014 of $5.144 million—calculated as net savings of $2.129 million applied to a gross rent of $7.273 million.[113] In discovery PG&E lowered the gross rental figure to $6.973 million which is the figure TURN used to adjust PG&E's test year lease costs. TURN netted out the $2.129 million in lease savings from PG&E the new gross rental figure of $6.973 million (net rent of $4.844 million). We then took that figure and allocated 73% to transmission and 27% to distribution--$3.52 million to transmission and $1.324 million to distribution. That net gas distribution related rent was then split between capital and expense using PG&E's proposed 60%/40% split.

That results in net rent expenses to gas distribution customers of approximately $530,000 in 2014 and $795,000 in 2014 capital. The Commission should adopt these figures and reduce PG&E's 2014 capital request by $2.292 million and its expense forecast by $1.528 million in 2014 for renting the San Ramon Gas Headquarters.

2. San Ramon Fifth Floor Gas Control Dispatch Costs

PG&E proposes to build a new gas control/dispatch center on the fifth floor of its San Ramon Bishop Creek Gas Headquarters. PG&E plans on renovating the fifth floor of an existing building to accommodate the control dispatch center. PG&E originally forecast a total cost of $41.682 million ($38.52 million in capital and $3.162 million in expense) in 2012 and 2013. In response to a TURN data request, PG&E corrected some calculation errors involving double counting and reduced its initial capital cost forecast from $38.519 million to $26.319 million. PG&E adjusted both figures upward by a 15% contingency factor for a total capital cost of $30.267 million.[114] PG&E proposes to allocate $21.103 million of that capital to gas distribution and $9.164 million to gas transmission.

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[113] PG&E-3, WP 12-24

[114] TURN #47.Q13. Attachments 1 and 2 included as Attachment 31

PG&E's gas dispatch project is exceedingly expensive. Even with the correction just described, the utility is requesting that ratepayers pay over $605 per square foot in capital and $63.25 per square foot in expense. This is unreasonable, given that this is not a new construction cost but rather a tenant improvement to an existing facility. As discussed earlier, PG&E uses a $560 per square foot construction estimate for building a new building. As previously discussed, the most expensive building to construct in the U.S. is a medical office building, and the 2013 national average construction cost of that is only $239 per square foot (for entirely new construction).[115]

The Commission cannot find reasonable estimates that are based on building or renovation costs that are close to $670 per square foot. Instead, TURN used a construction cost of $250 per square foot which is a slight increase to the national average for constructing medical office space. This reduces PG&E's capital forecast from $30.267 million to $12.5 million. TURN also eliminates PG&E's proposed 15% contingency factor because the Commission has ruled it is unreasonable to apply contingencies to preliminary cost estimates.[116]

TURN then allocates those capital costs to transmission and distribution functions in the same manner that it allocated the costs for the other four floors of the San Ramon building (73% transmission and 27% distribution). This allocates $9.125 million of capital for this project to gas transmission rates and the remaining $3.375 million to gas distribution. The Commission should lower PG&E's gas distribution capital request by $17.728 million.

3. *Gas Control Hot Backup Facility*

This project will create a mirror image facility that backs up PG&E's new gas control and dispatch center. The proposed back-up facility will be 75% of the size of the San Ramon facility and will have redundant power and fiber feeds into the facility. PG&E plans on spending $33.70 million in capital (2014-2016) and $292,000 in expenses. PG&E claims

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[115] RS Means National Average Costs for a Medical Office Building included as Attachment 32.

[116] Dec. 09-03-025, p. 247.

this project will allow it to conduct gas network monitoring and control operation in the event that a major disaster knocks out its new gas dispatch control center.[117]

The Commission should summarily reject this project because it is the result of imprudent planning and unreasonable cost estimates. First PG&E wants tens of millions of dollars to consolidate its gas dispatch and control into a single facility. PG&E wants its primary gas control dispatch headquarters so it can reduce the lag between data collection and manual intervention response in the field.[118] PG&E has not provided any evidence that a centralized control dispatch center will reduce this lag between event notification and response. However, for purposes of this discussion, TURN takes it on faith that PG&E is partially or wholly correct.

However, PG&E's claim that it now needs an entire duplicative, mirror image back-up facility is without merit or precedent. PG&E should have done some type of analysis to establish a) there is a reasonable chance this redundant multi-million project will add to safety and reliability and b) PG&E couldn't find another less expensive back-up strategy than this project. PG&E did not provide any such analysis, and it should not burden ratepayers with the additional inflated cost of a back-up facility without proving the need for such a facility.

As stated, PG&E explained it needed a back-up gas control center to maintain control in the event that a major disaster knocks its primary gas control center off-line. In response to a discovery request, PG&E provided a list identifying two specific risks that could affect the fifth floor dispatch center at San Ramon—a) earthquakes and b) a Petroleum Transmission Pipeline located near the San Ramon Bishop Ranch facility.[119]

First, PG&E made a specific and expensive decision to relocate its entire gas headquarter to the San Ramon. Somewhere along the line PG&E discovered that its new centralized gas headquarters was located near a petroleum transmission pipeline. PG&E had the resources to identify this pipeline before it relocated this facility, but apparently it either

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[117] PG&E-3, WP 12-33 to 12-35

[118] PG&E-3, WP 12-27

[119] TURN #39.Q3a included as Attachment 33

didn't investigate or did not care that it was locating its new centralized gas headquarters close to this potential risk.

While that is bad planning in itself, the situation is even worse, because the San Ramon facility is located very close to the Hayward seismic fault line. Thus, if the earthquake doesn't damage the facility (more about this later) the earthquake's effect on the major petroleum transmission pipeline could.

However, the situation with PG&E's gas headquarters building keeps getting worse, because PG&E decided to forego investment in seismic upgrades to the San Ramon Gas Headquarters. Its original plans for renovating and preparing the San Ramon facility to become the new control dispatch center (as well as overall gas headquarters) included $4.0 million in seismic upgrade work, that should mitigate some of the risk from potential earthquakes in San Ramon's active seismic area. Amazingly, PG&E made a conscious decision not to install seismic upgrades to this facility.

> "Attachment to TURN #47.Q12 Attachment 1 reflects lower total projected expenses than forecast in Exhibit (PG&E-3), Chapter 12, on page WP 12-24 **because PG&E does not plan to perform the $4 million building seismic upgrade work included in the forecast.**" (emphasis added)

This is imprudent and irresponsible planning. The San Ramon facility and the nearby petroleum transmission pipeline are both located on the Hayward seismic fault line. These two factors double the risk that a seismic event could damage the new Gas Headquarters. Put simply, if the earthquake doesn't get the Bishop Creek facility, the earthquake's effect on the petroleum transmission pipeline certainly could.

It is astonishing that PG&E chose to forgo the forecast seismic upgrades for a new centralized facility that has such risks. That would have been the prudent strategy. Instead, PG&E's strategy seems to be to forego $4.0 million in seismic upgrade work, so it can add close to $34 million in capital to its rate base for a redundant back-up facility. It is interesting to note that the Bishop Creek Gas Headquarters was not forecast in PG&E's 2011 general rate case. This means that the investment of $4.0 million in expense for the seismic upgrades would have negatively affected shareholder earnings.

Therefore, the Commission should reject this project's cost in its entirety and reduce PG&E's capital cost estimate by $3.334 million (2014), $13.493 million (2015) and $16.829 million (2016). PG&E's future expense forecasts for 2015 and 2016 should also be lowered by $146,000 in each of those years.

4. Gas Training Center

PG&E proposes to spend $59.2 million in capital and $2.30 million in expense to build a new 30-acre gas training facility. PG&E claims it needs to provide "best in class" training for its gas workforce to ensure its gas safety and reliability goals are met.[120] PG&E proposes to book the entire $59.2 million to gas distribution rates.

TURN provides a number of cost adjustments to PG&E's inflated unit costs and proposes a more appropriate allocation of facility costs between gas transmission and distribution rates.

PG&E claims that it will cost over $676 per square foot to build this facility with $52.3 million of that spent on soft and hard costs of construction.[121] PG&E then adjusts that figure upward by a 15% contingency factor, or an additional $7.201 million.

First, the Commission should summarily reject PG&E's proposed 15% contingency factor. It has already found applying a large contingency factor like this on top of a "rough order of magnitude" cost estimate is unreasonable.[122]

The Commission should also reduce PG&E's proposed construction cost estimates of $676 per square foot. Instead, to be conservative TURN suggests using the national average unit costs for constructing a new medical office building--$240 per square foot. TURN has used this figure to adjust the costs downward based on the assumption of building an 88,000 square foot building.

In addition, TURN allocates the costs of the proposed training center to transmission and distribution functions in the same manner as it allocated the costs of the entire San

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[120] PG&E-3, WP 12-38 through 12-44

[121] Ibid.

[122] PG&E's workpapers (PG&E-3, WP 12-39) actually describes the cost estimate for its gas training center as a ROM estimate.

Ramon Gas Headquarters, discussed above—73% to transmission and 27% of those costs to distribution. The following table reports TURN's proposed costs for the training facility based on construction costs of $240 per square foot and TURN's proposed allocation to transmission and distribution functions.

As shown in Table 6, TURN's adjustments to both construction cost forecasts and allocation between transmission and distribution functions results in a large cost decrease to gas distribution rates, relative to PG&E's proposal. The Commission should only book $5.482 million in capital to distribution rates and $220,000 in expense over 2012-2015. The year by year cost reductions are shown at the bottom of Table 6.

Table 7:
TURN Adjustment to PG&E's Gas Training Facility Costs ('000 nom $)

PG&E	2012	2013	2014	2015	Total
Capital	$	$	$	$	$
Expense		$	$	$	$
					$
TURN					
Capital	$	$	$	$	$
Expense		$	$	$	$
Total					$
Allocate Capital					
Transmission (73%)	$	$	$	$	$
Distribution (27%	$	$	$	$	$
Allocate Expense					
Transmission (73%)	$	$	$	$	$
Distribution (27%	$	$	$	$	$
Reduce Distribution					
Capital	$	$	$	$	$
Expense	$	$	$	$	$

5. Roseville Service Center

PG&E requests $21.965 million in capital and $2.196 million in expense in 2015 to build a new service center in the Roseville area. The project would build new office space (with conference and bull room space for 100 employees), warehouse space and additional yard space. PG&E claims to need this project because some local groups (unnamed) have "demanded" that PG&E increase its presence in the area.

As explained by PG&E in its workpaper;

> "Currently the existing Auburn Service Center has a population of less than 15,000 and every day crews travel back and forth from the Auburn SC to different locations in Roseville and Rocklin responding to leak repairs, dig-ins, customer call outs and other activities. Continuing a base in Auburn not only increases overall response time, but also affects travel time and costs, productivity, safety and logistics." [123]

PG&E claims that its presence in the Auburn Service Center is negatively affecting its productivity and efficiency in serving the Roseville area. However, PG&E requests $16.324 million in capital and $563,000 in expense (2014 and 2015) to rebuild the Auburn Service Center. The Commission needs to decide which version of PG&E's story it is going to believe. It should not authorize $16.887 million to refurbish the Auburn Service Center at the same time it authorizes $24.162 million for a new Roseville Service Center. TURN's decision is to reject PG&E's $24.162 million request for the Roseville Service Center. PG&E's oblique reference to some unnamed groups in Roseville seeking a higher PG&E presence in the area is not sufficient reason to spend over $24 million that will ultimately be collected in rates. Furthermore, PG&E has provided no analysis on cost savings or productivity enhancements that could justify its proposed investment.

If the Commission does not reject this project it should, in the alternative, reduce its costs based on TURN's unit cost adjustments. PG&E assumes it will cost a total of $450 per square foot to build the facilities ($18.0 million), another $11 per square foot in paving, fencing and yard improvement costs and $8.06 per square foot to acquire the land.

TURN adjusts those costs downward using similar unit costs used to adjust PG&E's other real estate costs. TURN used its construction unit costs for building a new office space ($188 per square foot) for all of the building proposed by PG&E. This is a conservative adjustment on TURN's part because PG&E's construction costs involve building warehouse space, which is less expensive to build than an office building. The Commission should not provide any recovery of the costs associated with purchasing the land absent a showing that the $8.06/square foot figure is a reasonable estimate.

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[123] PG&E-3, WP 12-52

This results in a capital cost of $9.22 million and expense forecast of $922,121 in 2015. The Commission should reduce PG&E's 2015 capital forecast by $12.744 million and its expense forecast by $1.274 million.

6. Antioch Service Center

This project will replace several temporary trailers with a long term, permanent structure of 15,000 square feet. In addition this project will pave 2 acres of yard, apply for permits, and eliminate all the long term trailers. PG&E requests $6.750 million in capital to replace the trailers and an additional $958,320 million in capital to pave 2 acres of land. It also wants an additional $700,000 in expense for furniture, demolition costs and IT costs as well an additional $80,000 to move and prepare temporary space for 3 employees.

PG&E provides the following justification for the project

> "Numerous trailers installed in the 1970s were set up to be used as temporary office space; however the need for space at that location is now long term. The current conditions of the trailers is projected to be rated far less than existing building codes require."[124]

TURN primarily recommends that the Commission reject this project in its entirety. PG&E's justification for this project is inadequate. PG&E's sole justification is that the current condition of the trailers may not comply with current building codes. That is neither a surprise nor a relevant justification. PG&E did not say the trailers were falling apart, but that they would not comply with current building codes. Building codes apply to new construction, not to existing 40-year-old structures. Indeed, PG&E's justification for this project could apply to a whole host of its facilities that were built before the current building standards were adopted. It is not a sufficient justification for this project.

In the alternative if the Commission finds this project reasonable it should reduce its costs because they are based on the same inflated unit costs PG&E has used throughout this application. Construction costs are based on $450 per square foot to construct a

[124] PG&E-3, WP 12-56

facility that PG&E itself says is a field construction office. PG&E uses an $11 per square foot cost to forecast paving costs, when elsewhere it used $5.49 per square foot.[125]

Instead, TURN used a construction cost of $188 per square foot, paving costs of $2.73 per square foot and its other proposed unit cost contained in Table 4.

TURN's cost adjustments result in total capital expenditure of $3.058 million in capital and $426,915 in expense in 2014. The Commission should therefore reduce PG&E's 2014 capital request by $4.65 million and its expense request by $273,085.

7. Vaca-Dixon Sub GC Yard Permanent Building

PG&E's workpapers indicate it was going to replace five rented trailers with one new and larger pre-fabricated building to be rented from William Scotsman. PG&E also wants to install an electrified gate to the facility. PG&E's workpaper calculations were not consistent with its testimony description because it assumed the project would build a 5,000 square foot facility at a cost of $450 per square foot. TURN requested that PG&E reconcile the two different project descriptions and PG&E confirmed it expects to build an entirely new facility and not rent a pre-fabricated building.[126]

Given that it took a data request from TURN to get PG&E to accurately describe this project to the Commission, the Commission would be justified in denying the entire project because PG&E did not sufficiently describe, let alone justify, the need for this project to the Commission.

In the alternative, the Commission should accept TURN's adjusted cost forecast for this project. That adjusted cost forecast is based on $188 per square foot for building construction and substitutes $2.73 per square foot for PG&E's proposed $11 per square foot for paving. PG&E's $11 per square foot paving figure is considerably more expensive than the paving costs it uses for most all of its other projects (i.e., $5.49 per square foot).[127]

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[125] As previously discussed, TURN believes that even the $5.49 per square foot for paving is an inflated cost relative to costs $2.73 per square foot average cost for paving provided by the BuildingJournal.com for the Oakland (east bay) area.

[126] TURN #47.Q18 included as Attachment 34

[127] PG&E-7, WP 6-958

TURN also adjusted PG&E's costs for installing gravel bins from $600,000 to $225,000 based on PG&E's own estimates for installing gravel bins contained in its workpapers.[128] We adjusted furniture costs downward consistent with our other furniture cost estimates. Finally, TURN made a small adjustment to PG&E's proposed IT costs to ensure they were consistent with PG&E's other IT cost assumptions. Throughout its entire application, PG&E has assumed IT costs for real estate investments would be split 90%/10% to capital and expense respectively. In its Vaca-Dixon project, PG&E allocated 100% of its proposed IT costs to expense. TURN therefore adjusted PG&E's proposed IT costs to capture the same capital/expense split as all of PG&E's other corporate real estate costs.

The result lowers PG&E's capital from $4.396 million to $1.479 million and its expense forecast from $237,000 to $131,865.[129] Thus, the Commission should lower PG&E's capital request by $2.917 million and $105,136 in expense for 2012-2014.

8. Corporate Real Estate Projects in Energy Supply (PG&E-6)

a. Humboldt Bay Generating Station Warehouse and Workshop

PG&E requests a total of $2.263 million in capital (2012-2014) to construct a warehouse and workshop at its Humboldt Bay Generating Station (HBGS). PG&E claims it needs to replace the current cargo container it uses as a warehouse with a facility that is climate controlled, and that increased operating hours for the HBGS drive the need for a workshop to maintain and recondition equipment. TURN adjusts PG&E's forecast by its proposed real estate unit costs contained in Table 4.

PG&E's provided minimal documentation for this project in its workpapers. Table 4 replicates PG&E's HBGS workpapers in their entirety.

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[128] PG&E-3, WP 12-19

[129] TURN's proposal to allocate PG&E's IT costs consistently with all of PG&E's other cost forecast slightly increases PG&E's capital request from $4.350 million to $4.396 million and reduces its expense forecast from $250,000 to $235,000.

Table 8: HBGS Costs ('000 nominal $)

Task	Cost
Engineering and Permits	$ 400
Buildings	$ 1,500
Crane/Office	$ 200
Other	$ 163
Total	**$ 2,263**

PG&E workpapers did not provide information on the size of the facilities. However, in response to a TURN data request, we can compare and evaluate the costs similar to the costs TURN has reviewed for PG&E's remaining corporate real estate costs.

PG&E assumes it will cost $1.5 million to build a 5,000 square foot warehouse and a 3,200 square foot workshop.[130] On average that assumes a unit construction cost of $183 per square foot for both the warehouse and the workshop. As demonstrated earlier in this testimony, a more realistic cost for constructing a warehouse is $83 per square foot. We also used a lower cost for buildinga shop based on TURN's proposed workshop unit costs for rebuilding the Auburn Service Center ($66 per square foot). This results in total facility capital costs of $626,200. TURN then adjusted this capital cost by PG&E's 2009-2012 recorded engineering/design/testing costs (see Attachment 18 to this testimony) of 1.40% which adds an additional $8,767 to the facility costs.

As shown in Table 7 PG&E added an additional $363,000 to this project for a "crane/office" and "other" costs. PG&E did not explain the nature of these costs, the reasons for these costs, or how it developed these costs. PG&E has not demonstrated the reasonableness of these costs, so the Commission should reject them. The result of TURN's analysis recommends a complete funding level of $634,967 in capital for this project. The commission should reduce PG&E's proposed capital spending by $1.628 million for 2011 through 2014.

9. Risk and Audit Department Facility Costs

a. Alternate Company Headquarters/Alternate Emergency Operations Center

PG&E requests $19.9 million in capital in 2014 and $250,000 in expense for 1) an alternate company headquarters (ACHQ) and 2) an alternate energy operations center (EOC).

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[130] TURN #45.Q20 included as Attachment 33

PG&E proposes to build these two facilities as back-up facilities to be used in the event a major earthquake occurs in the Bay Area and renders the primary headquarters and emergency operations centers inoperable.[131] PG&E reports that its current alternate headquarters and emergency operations buildings are located at its San Ramon location and that because this is located on the Hayward fault both its primary and alternate headquarters and emergency operations centers could be impacted at the same time. The Commission should primarily reject this project as imprudent and a product of poor planning. In addition, the project, as described, has little chance of becoming used and useful by the end of the test year, and therefore should not be added this to rate base and plant in service in 2014. If the Commission does authorize this project, it should limit authorized funding levels to those resulting from TURN's cost adjustments.

PG&E's workpapers to PG&E-9, indicate that PG&E plans on hiring a consultant (in 2014) to review the company's business continuity plans to identify the essential personnel who would be needed for this alternate headquarters. PG&E reports that this study will be completed in 2014 and a proposal to build an ACHQ would then be developed. PG&E must then use that study to identify a location for the ACHQ and AEOC, it must purchase the property for that location, hire a construction contractor, finish constructing and other work on a 22,500 square foot facility, and transition it into a used and useful asset—all in less than 12 months if the project is to be completed in 2014. TURN does not believe that PG&E can complete this project by the end of the test year under these circumstances. Therefore, it should be excluded from the capital forecast for 2014.

If the Commission does find that this project can be completed in such haste, then the Commission should only authorize project funding based on more reasonable unit cost assumptions.

TURN adjusted PG&E's construction costs down from $575 per square foot to $183 per square foot. We adjusted PG&E's personnel IT costs downward from $16,000 per employee to $4903 per employee.[132] Finally, TURN excluded PG&E's proposed $3.0

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[131] PG&E-9, WP 3-102 through 3-106

[132] See Attachment 23.

million for 20 miles of fiber optic cable. Since PG&E has stated it will find a suitable location after its consultant report is finished, there is no reason to believe PG&E will have to install 20 miles of fiber optic cable (rather than 2 miles or 50 miles), since the current location is unknown.

The result is to adjust PG&E's proposed capital cost forecast from $19.9 million in 2014 to $6.353 million in 2014. The Commission should reduce PG&E's 2014 capital cost forecast by $13.5 million.

IV. SmartMeter Audit in the Test Year

In PG&E's 2011 general rate case, the Commission accepted TURN's proposal to review PG&E's practices for allocating SmartMeter related costs between the SmartMeter Balancing Account and general rates.

> "At Pacific Gas and Electric Company's expense, Commission staff shall oversee an independent audit of Pacific Gas and Electric Company's SmartMeter-related costs to determine whether costs that should have been recorded in the SmartMeter balancing accounts were instead recorded in other accounts. The cost to Pacific Gas and Electric of the audit shall not exceed $200,000 and shall be recoverable through the SmartMeter balancing account." (Dec. 11-05-018, OP #19)

Despite being an order by the Commission the audit was never undertaken. In response to a TURN inquiry about the status of the audit, PG&E provided the following response.

> "PG&E has not had any communications with the CPUC staff on the staff's independent audit of PG&E's SmartMeter costs ordered by Decision 11-05018. PG&E has no knowledge of the current status of the audit or the staff's plans for it. As requested, if the CPUC staff contacts PG&E regarding the audit or if PG&E learns of any change in the status of the audit, PG&E will update this response." (TURN #08.Q1)

It is more than a little disappointing to learn that the Commission (and its staff) has failed to implement its own orders. The issue has not gone away and is as relevant as ever. TURN has already discovered at least $2.4 million in Smart-Meter related customer inquiry costs that it believes have been incorrectly allocated to 2011 base rates in this proceeding. We would not be surprised upon finding other SmartMeter related costs incorrectly booked to base rates.

In addition, the Commission needs to increase its understanding of how its earlier decisions authorizing AMI has been implemented and whether the project's proposed cost effectiveness compares to its actual cost-effectiveness. Indeed, discovery in this proceeding has shown that the operational benefits that were proposed by PG&E and accepted by the Commission are not reaching the goals expected in D. 06-07-027 or D. 09-03-026.

By the end of 2012 PG&E had installed close to 8.915 million electric and gas SmartMeters, but had only activated about 5.975 million of those meters or 66%. The remaining 33% of meters installed were not activated—depriving ratepayers of the monthly operations benefits that were promised.[133] During 2012, PG&E had between 1.6 and 1.9 million electric meters installed but not activated and between 1.2 and 1.4 million gas meters installed but not activated. Using the current benefits realization mechanism (minus the $/meter/month meter reading benefits)[134] TURN has calculated that PG&E's ratepayers were deprived of close to $21.0 million in SmartMeter benefits for 2012.

Even worse, is the fact that the AMI project has seriously diluted any operational cost effectiveness, because the timing of costs and benefits is unbalanced and were never fully understood by the Commission. Costs are all incurred up front, so that when PG&E purchases a SmartMeter of module, that equipment is booked to rate base, regardless of the meter being installed or activated.[135] However the Commission left it up to PG&E to decide when to activate those meters so they could provide benefits. The results of this model have not worked out well for ratepayers.

In sum, the Commission needs to ensure that its earlier order directing Commission staff to provide a financial audit of PG&E's SmartMeter cost allocation practices is as important as it was in the 2011 general rate case. TURN recommends that the Commission staff hire an independent accounting firm to audit SmartMeter related costs to reduce the resource burden on the staff. The Commission should also set a strict

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[133] See TURN #26.Q2(b) and (c), included as Attachment 36.

[134] A. 09-12-020, PG&E-4, Chapter 13, Table 13-3, included as Attachment 37.

[135] TURN #59.Q10, included as Attachment 38.

timeline on the audit and ensure it is completed no later than nine months after a final decision in this proceeding. Upon completion of the audit, the Commission should then open a further phase of this proceeding to evaluate the results of that audit.