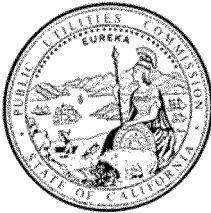


Docket:	:	<u>A.12-11-009</u>
Exhibit Number	:	<u>DRA-12</u>
Commissioner	:	<u>Florio</u>
ALJ	:	<u>Pulsifer</u>
Witness	:	<u>Logan</u>



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

**Report on the Results of Operations  
for  
Pacific Gas and Electric Company  
General Rate Case  
Test Year 2014**

**Energy Supply Capital Expenditures**

San Francisco, California  
May 3, 2013

## TABLE OF CONTENTS

I. INTRODUCTION .....	1
II. SUMMARY OF RECOMMENDATIONS .....	1
III. GENERAL OVERVIEW .....	3
A. PG&E's Request .....	4
B. DRA's Analysis .....	4
IV. DISCUSSION / ANALYSIS OF HYDRO OPERATIONS .....	5
A. MWC 2M – Install/Replace Hydro Electric Generating Equipment .....	6
1. MWC 2M 2012 Forecast .....	6
2. MWC 2M 2013 Forecast .....	6
3. MWC 2M 2014 Forecast .....	7
B. MWC 2N – Install/Replace Reservoirs, Dams, & Waterways .....	8
1. MWC 2N 2012 Forecast .....	8
2. MWC 2N 2013 Forecast .....	8
3. MWC 2N 2014 Forecast .....	9
C. MWC 2L – Install/Replace Hydro Electric Generation Safety & Regulatory Requirements .....	9
1. MWC 2L 2012 Forecast .....	10
2. MWC 2L 2013 Forecast .....	10
3. MWC 2L 2014 Forecast .....	10
D. MWC 11 – Relicensing Hydroelectric Generation .....	11
1. MWC 11 2012 Forecast .....	11
2. MWC 11 2013 Forecast .....	12
3. MWC 11 2014 Forecast .....	12
4. Two-Way Balancing Account Proposal .....	12
E. MWC 12 – Implement Environmental Projects .....	13
1. MWC 12 2012 Forecast .....	14
2. MWC 12 2013 Forecast .....	14
3. MWC 12 2014 Forecast .....	14
F. MWC 2P – Install/Replace Hydro Electric Generation Buildings, Grounds, and Infrastructure .....	14

1.	MWC 2P 2012 Forecast .....	15
2.	MWC 2P 2013 Forecast .....	15
3.	MWC 2P 2014 Forecast .....	15
G.	MWC 05 – Tools and Equipment.....	16
1.	MWC 05 2012 Forecast.....	16
2.	MWC 05 2013 Forecast.....	17
3.	MWC 05 2014 Forecast.....	17
H.	MWC 2F – Building Information Technology Applications & Infrastructure .....	17
1.	MWC 2F (Hydro) 2012 Forecast.....	18
2.	MWC 2F (Hydro) 2013 Forecast.....	18
3.	MWC 2F (Hydro) 2014 Forecast.....	18
V.	DISCUSSION / ANALYSIS OF NUCLEAR OPERATIONS .....	18
A.	Historical Nuclear Operations Capital Spending.....	19
B.	Forecast Nuclear Operations Capital Spending .....	20
1.	2012 Nuclear Operations Capital Forecast.....	20
2.	2013 Nuclear Operations Capital Forecast.....	20
3.	2014 Nuclear Operations Capital Forecast.....	20
a.	2014 Nuclear Operations Major Capital Projects.....	20
b.	PG&E’s Proposed Diablo Canyon Regulatory Balancing Account.....	21
VI.	DISCUSSION / ANALYSIS OF FOSSIL AND OTHER GENERATION OPERATIONS.....	22
A.	Historical Fossil and Other Operations Capital Spending.....	24
B.	Forecast Fossil and Other Operations Capital Spending .....	24
1.	2012 Fossil/Other Capital Forecast .....	24
2.	2013 Fossil/Other Capital Forecast .....	24
3.	2014 Fossil/Other Capital Forecast .....	25
4.	Forecast Decommissioning Work .....	25
VII.	DISCUSSION / ANALYSIS OF ENERGY PROCUREMENT.....	26
A.	Historical Energy Procurement Administration Capital Spending .....	27
B.	Forecast Energy Procurement Administration Capital Spending .....	27

1. 2012 Forecast Energy Procurement Capital.....	27
2. 2013 Forecast Energy Procurement Capital.....	28
3. 2014 Forecast Energy Procurement Capital.....	28

# ENERGY SUPPLY CAPITAL EXPENDITURES

## I. INTRODUCTION

This exhibit presents the analyses and recommendations of the Division of Ratepayer Advocates (DRA) regarding Pacific Gas and Electric Company's (PG&E) forecasts of Energy Supply (i.e., Electric Generation) capital expenditures for 2012, 2013, and Test Year (TY) 2014.

Capital expenditures for Energy Supply include plant investment in PG&E's hydroelectric, nuclear, fossil fuel, and alternative generation power facilities. This includes capital outlays associated with generation equipment such as turbines, pumps, boilers, and instrumentation and controls. Information technology costs as well as tools and equipment budgets are associated in the various Energy Supply areas. Energy Supply capital also includes infrastructure investments such as the buildings, roads, bridges, dams, and penstocks. Finally, the Energy Supply organization includes the Energy Procurement Administration function, where the capital budget is based on capitalized information technology projects.

## II. SUMMARY OF RECOMMENDATIONS

The following summarizes DRA's recommendations for 2012-2014 Energy Supply Capital Expenditures.

- DRA accepts PG&E's recorded 2012 capital expenditures of \$592.1 million for Energy Supply. Therefore, DRA recommends adjustments to PG&E's Energy Supply 2012 capital budget totaling +\$10.4 million.
- DRA recommends adjustments to PG&E's Energy Supply 2013 capital budget totaling -\$4.7 million, based on adjustments to information technology (IT) projects in the Energy Supply Areas.
- DRA recommends adjustments to PG&E's Energy Supply 2014 capital budget totaling -\$81.4 million, based on adjustments to IT projects and rescheduling certain capital projects in the Hydro Area.
- DRA recommends that PG&E's proposed Hydro Relicensing two-way balancing account not be adopted as it is unnecessary.



1 area sections that follow. Table 12-2 compares DRA's and PG&E's 2012-2014  
 2 forecasts of Energy Supply capital expenditures by MWC:

3  
 4  
 5  
 6

**Table 12-2**  
**Energy Supply Capital Expenditures by Major Work Category (MWC)**  
**for 2012-2014**  
**(In Thousands of Dollars)**

Description	DRA Recommended			PG&E Proposed		
	2012	2013	2014	2012	2013	2014
<b>MWC</b>						
2F	\$30,683	\$28,694	\$50,869	\$40,740	\$33,365	\$59,150
5	\$2,535	\$2,570	\$4,762	\$1,951	\$2,570	\$4,762
11	\$34,237	\$39,566	\$40,234	\$26,408	\$39,566	\$45,176
2N	\$51,005	\$36,116	\$53,670	\$30,668	\$36,116	\$86,244
2M	\$83,168	\$109,278	\$105,437	\$82,391	\$109,278	\$121,702
2L	\$100,286	\$59,953	\$35,614	\$108,246	\$59,953	\$49,614
12	\$11,385	\$5,958	\$7,020	\$7,535	\$5,958	\$8,320
2P	\$4,786	\$5,477	\$10,652	\$3,761	\$5,477	\$16,652
20	\$260,538	\$209,659	\$240,848	\$263,657	\$209,659	\$240,848
04	\$820	\$1,220	\$1,220	\$1,018	\$1,220	\$1,220
03	\$253	\$231	\$222	\$205	\$231	\$222
2U	\$3,143	\$0	\$0	\$3,198	\$0	\$0
2S	\$7,371	\$6,320	\$1,448	\$7,364	\$6,320	\$1,448
2T	\$126	\$1,250	\$1,075	\$150	\$1,250	\$1,075
3D*	\$369	\$0	\$0	\$0	\$0	7\$0
2R*	\$394	\$0	\$0	\$0	\$0	\$0
23	\$1,024	\$2,200	\$0	\$4,000	\$2,200	\$0
Total <sup>6</sup>	\$592,125	\$511,870	\$555,085	\$581,733	\$516,541	\$636,475

7 **III. GENERAL OVERVIEW**

8 PG&E's Energy Supply capital request for 2012 through TY 2014 is  
 9 characterized by a significant increase in the Hydro Operations area, a modest  
 10 increase in the Energy Procurement area, a modest decrease in the Fossil & Other  
 11 area, and a relatively stable forecast in the Nuclear area. For the 2012-2016  
 12 cumulative period, the Hydro area dominates PG&E's capital spending plan with

---

<sup>6</sup> Totals may not add due to rounding errors.

1 \$1.7 billion forecast, followed by the Nuclear area with a \$1.2 billion forecast. The  
2 Energy Procurement budgets reflect increasing capital spending activities at \$163  
3 million, while Fossil & Other has decreasing activities at \$41 million for 2012-2016.

4 **A. PG&E's Request**

5 As shown in Tables 12-1 and 1202, PG&E's total capital expenditure request  
6 for TY 2014 is \$636.5 million. The requests for 2012 and 2013 are \$581.7 million  
7 and \$516.5 million, respectively.

8 **B. DRA's Analysis**

9 For each Energy Supply area, PG&E builds its capital budget forecast on a  
10 project-by-project basis. PG&E's workpapers present project-by-project information  
11 for years 2011-2016; 2011 are recorded costs, and 2012-2016 are forecast costs.  
12 The TY 2014 request is dominated by the combination of Hydro and Nuclear areas -  
13 almost \$600 million of the \$636 million TY 2014 request comes from these two  
14 departments. The major themes in terms of justification for the projects in these two  
15 areas are (1) safety, (2) reliability, and (3) regulatory requirements. All told, there are  
16 746 capital projects forecast in Energy Supply.

17 DRA does not take issue with the justification for each of the projects in the  
18 Energy Supply area, based on review of the testimony, workpapers, and discovery  
19 responses. However, the significant increase in the Hydro area budgets warranted  
20 further review of the individual projects requested. This review reveals that several  
21 Hydro projects have the characteristic that a majority of their project spending is  
22 forecast to occur after the Test Year. This fact, coupled with steady increase in the  
23 Hydro budgets, make these projects good candidates to be rescheduled out of TY  
24 2014. The details of these projects and DRA's proposed Hydro budget adjustments  
25 are discussed in the Hydro section.

26 The other adjustments to PG&E's request in the Energy Supply area are  
27 related to Information Technology (IT). These adjustments are based on the  
28 recommendations found in DRA-18 (Shared Services & Information Technology



1 Costs). The results of these adjustments are detailed below in the various Energy  
 2 Supply areas throughout this exhibit.

3 **IV. DISCUSSION / ANALYSIS OF HYDRO OPERATIONS**

4 This section discusses PG&E’s capital expenditures request for 2012-2014  
 5 for Hydro Operations. PG&E requests \$262.5 million for 2012, \$261 million for 2013  
 6 and \$344.7 million for TY 2014 (nominal dollars). DRA’s forecasts for Hydro  
 7 Operations capital expenditures are \$293.0 million for 2012, \$260.4 million for 2013,  
 8 and \$265.9 million for TY 2014. DRA’s adjustments reflect significant reductions in  
 9 TY 2014, a modest increase in 2012 (as DRA accepts 2012 recorded capital  
 10 expenditures which were higher than PG&E’s 2012 forecast), and a minor  
 11 adjustment to 2013 based on DRA’s IT recommendation.

12 The Hydro issues are addressed by MWC. Table 12-3 summarizes 2012-  
 13 2014 PG&E’s request and DRA’s recommendation for capital expenditures by  
 14 MWCs for Hydro Operations:

15 **Table 12-3**  
 16 **Energy Supply Capital Expenditures for 2012-2014**  
 17 **Hydro Operations**  
 18 **(In Thousands of Dollars)**

Description	DRA Recommended			PG&E Proposed <sup>7</sup>		
	2012	2013	2014	2012	2013	2014
MWC 2F	\$7,759	\$3,212	\$12,083	\$3,235	\$3,735	\$14,050
MWC 05	\$421	\$880	\$2,906	\$231	\$880	\$2,906
MWC 11	\$34,237	\$39,566	\$40,233	\$26,408	\$39,566	\$45,176
MWC 2N	\$51,005	\$36,116	\$53,670	\$30,668	\$36,116	\$86,244
MWC 2M	\$83,168	\$109,278	\$105,437	\$82,391	\$109,278	\$121,702
MWC 2L	\$100,286	\$59,953	\$35,614	\$108,246	\$59,953	\$49,614
MWC 12	\$11,385	\$5,958	\$5,320	\$7,535	\$5,958	\$8,320
MWC 2P	\$4,786	\$5,477	\$10,652	\$3,761	\$5,477	\$16,652
Total	\$293,047	\$260,440	\$265,915	\$262,475	\$260,963	\$344,664

<sup>7</sup> Ex. PG&E-6 at p. 2-161, Table 2-23.



1 **3. MWC 2M 2014 Forecast**

2 For 2014, PG&E forecasts another significant increase above the previous  
 3 year. The \$121.7 million forecast is about 20 percent above the company’s 2013  
 4 forecast. DRA recommends an adjustment to this forecast, resulting in a TY forecast  
 5 of \$105.4 million. The adjustments are based on a project-by-project review of MWC  
 6 2M for the 2011-2016 time period. This review is discussed below.

7 PG&E’s hydroelectric capital project data base for 2011-2016 includes 424  
 8 projects in eight major work categories (MWC’s).<sup>9</sup> Recorded data is entered for  
 9 2011, and forecast data is used for 2012-2016. Most of the projects have significant  
 10 activities forecast for 2012-2014 such that each individual project will be at or near  
 11 completion in 2014. However, six projects in MWC 2M have a different spending  
 12 pattern. These six projects have TY 2014 spending of at least \$1 million, had  
 13 planned spending prior to 2014 of less than \$1 million, and have at least 50 percent  
 14 of the total project spending in 2015-2016. The following table demonstrates this  
 15 spending pattern. The far right column shows the ratio of 2014 spending to the total  
 16 project spending. All of the ratios are well below 0.50. Table 12-4 shows these  
 17 projects:

18 **Table 12-5**  
 19 **DRA Adjustments to Hydro MWC 2M**  
 20 **(In Thousands of Dollars)**

order	HydroProjectDescription - DRA Adjustments	MWC	PG&E2012	PG&E 2013	TY 2014	AY 2015	AY 2016	total proj.	rat.
574570E	Pit 4 Unit 2 Turbine Upgrade	2M	\$60	\$500	\$5,000	\$10,000	\$0	\$15,560	0.32
572058E	AM: Needle Valve CAP	2M	\$0	\$0	\$1,000	\$3,000	\$5,000	\$9,000	0.11
572058E	AM: Turbine / Runner Replacement CAP	2M	\$0	\$0	\$3,000	\$5,000	\$7,500	\$15,500	0.19
5720626	AM: Cooling Water Pr	2M	\$0	\$0	\$1,000	\$3,000	\$3,000	\$7,000	0.14
572058E	AM: Governor Program CAP	2M	\$0	\$0	\$3,000	\$5,000	\$7,500	\$15,500	0.19
57600031E	57Exh6Ch2MWC2MFuncEHPAsset UCC120Op	2M	\$0	\$0	\$2,365	\$4,786	\$200	\$7,351	0.32
		total:	\$60	\$500	\$15,365	\$30,786	\$23,200	\$69,911	0.22

21  
 22  
<sup>9</sup> Ex. PG&E-6 Workpapers at pp. WP 2-25 – WP-2-39.

1 Removing these six projects from the TY 2014 forecast reduces MWC 2M by  
2 \$15.4 million, as seen in the table above. As stated by PG&E, for the projects that  
3 are not adopted by the Commission, and not yet started, they will likely be completed  
4 as planned, but will be rescheduled one or more years into the future.<sup>10</sup>

## 5 **B. MWC 2N – Install/Replace Reservoirs, Dams, & Waterways**

6 The second largest capital cost category in the Hydro area is MWC 2N,  
7 Install/Replace Reservoirs, Dams, & Waterways. During 2011, the capital spending  
8 was focused on emergency canal work. Major canal work will continue into 2014, but  
9 penstock systems, flumes and dams have significantly increased planned spending,  
10 according to PG&E.

11 The following table shows the recorded cost data for 2007-2012, revealing  
12 steadily increasing costs.

13 **Table 12-6**  
14 **2007-2012 Recorded Data for Hydro MWC 2N**  
15 **(In Thousands of Dollars)**

Description	2007	2008	2009	2010	2011	2012
MWC 2N	\$8,767	\$18,422	\$23,137	\$22,150	\$43,645	\$51,005

16 Source: 2007-2011 data from Ex. PG&E-6 Workpapers at WP 2-97; 2012 data from PG&E Data  
17 Response DRA\_108-03.

### 18 **1. MWC 2N 2012 Forecast**

19 PG&E's forecast for MWC 2N in 2012 is \$30.7 million. Based on recorded  
20 expenditures of \$51 million, DRA's forecast is \$19.3 million greater than PG&E's  
21 forecast.

### 22 **2. MWC 2N 2013 Forecast**

23 PG&E's forecast for MWC 2N in 2013 is \$36.1 million, or a \$15 million  
24 decrease from 2012 recorded. After reviewing PG&E's testimony, workpapers, and  
25 discovery responses, DRA accepts PG&E's forecast.

---

<sup>10</sup> Ex. PG&E-6 at p. 2-107.

1 **3. MWC 2N 2014 Forecast**

2 For 2014, PG&E forecasts a significant increase to MWC 2N for 2014  
 3 compared to 2013. The \$86.2 million forecast is about 120 percent above the  
 4 company’s 2013 forecast. The big driver of the increase for 2014 is the planned  
 5 spending on penstock systems, which is budgeted at \$25 million, or 25 times greater  
 6 than 2011 actual spending. DRA recommends an adjustment to this forecast,  
 7 resulting in a TY 2014 forecast of \$53.7 million. The adjustments are based on a  
 8 project-by-project review of MWC 2N for the 2011-2016 time period. This review is  
 9 discussed below.

10 **Table 12-7**  
 11 **DRA Adjustments to Hydro MWC 2N**  
 12 **(In Thousands of Dollars)**

order	Hydro Project Description - DRA Adjustments	MWC	PG&E 2012	PG&E 2013	TY 2014	AY 2015	AY 2016	total proj.	rat.
5720595	AM: Penstock Program CAP	2N	\$0	\$50	\$8,000	\$18,000	\$38,000	\$64,050	0.12
5704239	Drum Canal/Gunite Work (Cap)	2N	\$2,000	\$1,800	\$13,500	\$13,500	\$13,500	\$44,300	0.30
5743220	Centerville New Penstock inlet structure	2N	\$0	\$504	\$3,004	\$17,005	\$0	\$20,513	0.15
5720633	AM: Dam Remediation	2N	\$0	\$0	\$5,000	\$15,000	\$40,000	\$60,000	0.08
5720584	AM: Waterconveyance Wood Flume Replace	2N	\$0	\$500	\$2,000	\$15,000	\$10,000	\$27,500	0.07
576000351	57Exh6 Ch2 MWC2N FuncEHP Asset UCC120 Opt	2N	\$0	\$0	\$1,020	\$1,405	\$300	\$2,725	0.37
		total	\$2,000	\$2,854	\$32,524	\$79,910	\$101,800	\$219,088	0.15

13  
 14 Similar to the spending pattern analysis conducted for MWC 2M, MWC 2N  
 15 has a limited number of projects where the expenditure forecast is weighted towards  
 16 the latter two years of the rate case cycle. Six projects meet the criteria used above  
 17 with one exception. The Drum Canal project has pre-2014 spending above \$1  
 18 million. However, since the 2014 cost to total cost spending ratio is 0.30, and the TY  
 19 2014 costs are significant, this project remains a good candidate to be rescheduled  
 20 out of the Test Year. Based on the \$32.5 million adjustment total from the table  
 21 above, DRA recommends a \$53.7 million budget for TY 2014 in MWC 2N.

22 **C. MWC 2L – Install/Replace Hydro Electric Generation Safety &**  
 23 **Regulatory Requirements**

24 MWC 2L, Install/Replace Hydro Electric Generation Safety & Regulatory  
 25 Requirements, is the third largest budget category for the capital items in the Hydro  
 26 area. PG&E states that there are five types of work in the MWC: (1) Dam Safety; (2)

1 Public and Waterway Safety; (3) Employee Safety; (4) NERC (North America  
2 Electric Reliability Council) Security and Records Management; and (5) Regulatory  
3 and Other.<sup>11</sup>

4 The following table shows the 2007-2012 recorded costs for MWC 2L, which  
5 ran up precipitously in 2011-2012 due to the Crane Valley Dam project.<sup>12</sup>

6 **Table 12-8**  
7 **2007-2012 Recorded Data for MWC 2L**  
8 **(In Thousands of Dollars)**

Description	2007	2008	2009	2010	2011	2012
MWC 2L	\$6,945	\$18,857	\$20,258	\$34,902	\$86,207	\$100,286

9 Source: 2007-2011 data from Ex. PG&E-6 Workpapers at WP 2-97; 2012 data from PG&E Data  
10 Response DRA\_108-03.

11 **1. MWC 2L 2012 Forecast**

12 PG&E's forecast for MWC 2L in 2012 is \$108.3 million. Recorded costs for  
13 MWC 2L are \$100.3 million or \$8 million less than PG&E's forecast. DRA  
14 recommends that the recorded costs be used for the forecast.

15 **2. MWC 2L 2013 Forecast**

16 Due to the completion of the Crane Valley Dam project, the MWC 2L costs  
17 decline to a forecast of \$60 million, or \$40.3 million below 2012 recorded costs.  
18 After reviewing PG&E's testimony, workpapers, and discovery responses, DRA  
19 accepts PG&E's forecast.

20 **3. MWC 2L 2014 Forecast**

21 PG&E's 2014 MWC 2L forecast includes three projects with the forecast  
22 spending pattern similar to the previous categories where the largest percentage of  
23 the budgets are after TY 2014. The largest of these projects, the Dam Safety  
24 Instrumentation Automation Program is forecast to invest \$10 million of its \$42.5  
25 million total costs in 2014. Two other projects are identified in the table below as

---

<sup>11</sup> Ex.PG&E-6 at p. 2-119.

<sup>12</sup> See detailed discussion in Ex. PG&E-6, at pp. 2-121 to 2-128.

1 candidates for rescheduling out of 2014. DRA recommends a total budget of \$35.6  
 2 million, or a \$14 million decrease from PG&E's request, for 2014 MWC 2L capital  
 3 expenses.

4 **Table 12-9**  
 5 **DRA Adjustments to Hydro MWC 2N**  
 6 **(In Thousands of Dollars)**

order	Hydro Project Description - DRA Adjustments	MWC	PG&E2012	PG&E 2013	TY 2014	AY 2015	AY 2016	total proj.	rat.
5719014	HC: Arc Flash Remediation	2L	\$0	\$0	\$2,000	\$2,300	\$2,500	\$6,800	0.29
5719018	AM: DamSafety Instrumentation Automation	2L	\$0	\$1,000	\$10,000	\$17,500	\$15,000	\$43,500	0.23
5720591	AM: System Protection & Controls	2L	\$0	\$0	\$2,000	\$3,000	\$4,000	\$9,000	0.22
		total	\$0	\$1,000	\$14,000	\$22,800	\$21,500	\$59,300	0.24

8 **D. MWC 11 – Relicensing Hydroelectric Generation**

9 MWC 11, Relicensing Hydroelectric Generation, is another significant  
 10 budgetary item in the Hydro area. PG&E's identifies its subcategories for MWC 11  
 11 projects as: (1) FERC Balancing Account Licensing; (2) FERC Balancing Account  
 12 License Conditions; (3) Ongoing License Conditions, and (4) Other.<sup>13</sup> As discussed  
 13 below, DRA does not accept PG&E's Balancing Account proposal. Therefore,  
 14 PG&E's subcategories are not germane to DRA's review of MWC 11.

15 The recorded data for 2007-2012 is presented in the following table.

16 **Table 12-10**  
 17 **2007-2012 Recorded Data for MWC 11**  
 18 **(In Thousands of Dollars)**

Description	2007	2008	2009	2010	2011	2012
MWC 11	\$23,469	\$30,545	\$50,299	\$61,698	\$30,707	\$34,237

19 Source: 2007-2011 data from Ex. PG&E-6 Workpapers at WP 2-97; 2012 data from PG&E Data  
 20 Response DRA\_108-03.

21 **1. MWC 11 2012 Forecast**

22 PG&E's forecast for MWC 11 in 2012 is \$26.4 million. The recorded costs in  
 23 2012 totaled \$34.2 million, and are \$7.8 million above PG&E's forecast submitted in  
 24 this GRC. DRA recommends a forecast of \$34.2 million.

<sup>13</sup> Ex. PG&E-6 at p. 2-129.





1 greater uncertainty due to federal regulatory schedules, lengthy stakeholder  
2 processes and incongruity with the three-year general rate case cycle.<sup>16</sup>

3 For the purposes of capital budgeting, a two-way balancing account does not  
4 appear to provide any real benefits to ratepayers. First, the historical recorded costs  
5 have not been treated with the balancing account, so there is no way to capture any  
6 over-collection ratepayers could have due in this general rate case cycle. Second,  
7 any differences between actual and adopted costs for ratemaking purposes will be  
8 trued up in the generation balancing account. Finally, two-way balancing treatment  
9 tends to favor inflated forecasting when it is known that unspent funds will be  
10 returned to ratepayers. It would not be a good policy for ratepayers to provide this  
11 “safety cushion” for the utility’s capital budget. For all of these reasons, DRA  
12 recommends that the two-way balancing account proposal not be adopted for the  
13 hydro relicensing capital items.

#### 14 **E. MWC 12 – Implement Environmental Projects**

15 The next category to address is MWC 12, Implement Environmental Projects.  
16 This category is primarily for oil spill prevention projects, such as replacement of  
17 hydro powerhouse bearings and sumps.<sup>17</sup>

18 Though not a major budget category in the Hydro area, the recorded costs for  
19 MWC 12 have steadily increased since 2007, as shown in Table 12-12:

20 **Table 12-12**  
21 **2007-2012 Recorded Data for Hydro MWC 12**  
22 **(In Thousands of Dollars)**

Description	2007	2008	2009	2010	2011	2012
MWC 12	\$2,335	\$3,229	\$5,417	\$7,174	\$8,045	\$11,385

23 Source: 2007-2011 data from Ex. PG&E-6 Workpapers at WP 2-97; 2012 data from PG&E Data  
24 Response DRA\_108-03.

---

<sup>16</sup> Ex. PG&E-6 at pp. 2-136 and, 6-2.

<sup>17</sup> Ex. PG&E-6 at p. 2-139.

1 **1. MWC 12 2012 Forecast**

2 PG&E’s forecast for MWC 12 in 2012 is \$7.5 million. PG&E spent \$11.4  
3 million for MWC 12 in 2012, which is \$3.9, or almost 50 percent greater than it had  
4 forecast. DRA’s forecast accepts the recorded cost for MWC 12 in 2012.

5 **2. MWC 12 2013 Forecast**

6 PG&E forecasts a decrease in 2013 from 2012 in MWC 12 to just under \$6  
7 million. After reviewing PG&E’s testimony, workpapers, and discovery responses,  
8 DRA accepts this forecast.

9 **3. MWC 12 2014 Forecast**

10 The review of the capital project data base shows one problematic project in  
11 MWC 12, based on the forecast spending pattern where the costs are significantly  
12 less in the TY. PG&E states that the Kerckhoff 1 Powerhouse project is one of eight  
13 forecast to begin in 2014.<sup>18</sup> However, this is the only one of these eight projects with  
14 a TY to total project spending ratio below 0.50.

15 **Table 12-13**  
16 **DRA Adjustments to MWC 12**  
17 **(In Thousands of Dollars)**

order	HydroProjectDescription	DRAAdjustments	MWC	PG&E2012	PG&E2013	TY2014	AY2015	AY2016	totalproj.	rat.
576000233576	Ch2MWC12FuncEHPAssetUCC1200p12		total	\$0	\$0	\$1,300	\$2,000	\$0	\$3,300.39	

19 Removing this project reduces the 2014 forecast for MWC 12 by \$1.3 million  
20 to \$7.0 million, which is DRA’s recommended TY 2014 budget.

21 **F. MWC 2P – Install/Replace Hydro Electric Generation**  
22 **Buildings, Grounds, and Infrastructure**

23 MWC 2P includes the installation and replacement of buildings, grounds, and  
24 the infrastructure associated with hydro generation system. The infrastructure  
25 includes roads, bridges, roofs, and various outdoor structures. The projects

<sup>18</sup> Ex. PG&E-6 at p. 2-139.

1 associated with MWC 2P are non-emergency in nature, and are candidates for  
2 rescheduling.<sup>19</sup>

3 The recorded costs have steadily increased in recent years, as shown in  
4 Table 12-14:

5 **Table 12-14**  
6 **2007-2012 Recorded Data for MWC 2P**  
7 **(in Thousands of Dollars)**

Description	2007	2008	2009	2010	2011	2012
MWC 2P	\$591	\$4,424	\$2,169	\$2,612	\$4,531	\$4,786

8 Source: 2007-2011 data from Ex. PG&E-6 Workpapers at WP 2-97; 2012 data from PG&E Data  
9 Response DRA\_108-03.

10 The recorded MWC 2P costs for 2012 are about \$1 million higher than  
11 PG&E's GRC forecast. The company's 2014 forecast calls for 400 percent increase  
12 over the recent recorded number.

13 **1. MWC 2P 2012 Forecast**

14 PG&E forecasts \$3.8 million for MWC 2P for 2012, while actual spending was  
15 \$4.8 million. DRA recommends \$4.8 million for the MWC 2P 2012 forecast.

16 **2. MWC 2P 2013 Forecast**

17 PG&E forecasts another increase for the 2013 forecast for MWC 2P to \$5.5  
18 million. After reviewing PG&E's testimony, workpapers, and discovery responses,  
19 DRA accepts this forecast.

20 **3. MWC 2P 2014 Forecast**

21 PG&E states that 32 total projects are scheduled to begin in 2014.<sup>20</sup> The  
22 review of the project details revealed only one with the spending pattern weighted  
23 toward 2015-2016.

24

---

<sup>19</sup> Ex.PG&E-6 at p. 2-137.

<sup>20</sup> Ex.PG&E-6 at p. 2-136.

1  
2  
3

**Table 12-15  
DRA Adjustments to MWC 2P  
(In Thousands of Dollars)**

order	HydroProjectDescription: DRAAdjustments	MMC	PG&E2012	PG&E2013	TY2014	AY2015	AY2016	totalproj.	rat.
574723	HC:HydroServiceCenter(RockCreekYard)	2P	total	\$0	\$800	\$6,000	\$10,000	\$12,000	\$28,8000.21

4

5

MWC 2P is a category where the low TY to total project ratio is low (.21). The Auburn hydro service center project has forecast spending of \$6 million, \$10 million, and \$12 million in 2014, 2015, and 2016, respectively. The 31 other MWC 2P projects can still be funded based on PG&E's forecast. DRA recommends a \$10.7 million budget for the TY 2014 MWC 2P forecast, a \$6 million adjustment to PG&E's forecast.

6

7

8

9

10

11

**G. MWC 05 – Tools and Equipment**

12

MWC 05 includes the purchasing of capital tools and equipment used in the Hydro area. The recorded costs have remained below \$1 million per year as shown in the following table.

13

14

15

16

17

**Table 12-16  
2007-2012 Recorded Data for MWC 05  
(In Thousands of Dollars)**

Description	2007	2008	2009	2010	2011	2012
MWC 05	\$530	\$725	\$984	\$568	\$898	\$421

18

Source: 2007-2011 data from Ex. PG&E-6 Workpapers at WP 2-97; 2012 data from PG&E Data Response DRA\_108-03.

19

20

Despite recorded costs averaging below \$1 million, PG&E requests a MWC budget of nearly \$3 million for TY 2014.

21

22

**1. MWC 05 2012 Forecast**

23

PG&E has forecast \$0.2 million for MWC 05 in 2012, while actual spending was \$0.4 million. DRA recommends the actual spending figure for 2012.

24



1                           **1. MWC 2F (Hydro) 2012 Forecast**

2                           PG&E’s forecast for MWC 2F (Hydro) in 2012 is \$3.2 million. The recorded  
3 costs are \$7.8 million, or \$3.6 million higher than PG&E’s forecast. DRA accepts the  
4 recorded 2012 MWC 2F costs for the 2012 forecast

5                           **2. MWC 2F (Hydro) 2013 Forecast**

6                           Based on DRA’s recommendation for a 14 percent reduction to PG&E’s  
7 budget requests for IT projects, DRA recommends that PG&E’s proposed budget of  
8 \$3.7 million for MWC 2F be reduced to \$3.2 million for 2013, or a \$0.5 million  
9 decrease.

10                           **3. MWC 2F (Hydro) 2014 Forecast**

11                           Based on DRA’s recommendations for a 14 percent reduction to PG&E’s IT  
12 budget requests, DRA recommends that PG&E’s proposed budget of \$14.1 million  
13 for MWC 2F (Hydro) be reduced to \$12.1 million for TY 2014, reflecting a \$2 million  
14 adjustment.

15 **V. DISCUSSION / ANALYSIS OF NUCLEAR OPERATIONS**

16                           This section discusses PG&E’s capital expenditures request for 2012-2014  
17 for Nuclear Operations. PG&E requests \$266.6 million for 2012, \$216.2 million for  
18 2013 and \$254.6 million for TY 2014 (nominal dollars). DRA’s forecasts for Nuclear  
19 Operations capital expenditures are \$267.0 million for 2012, \$215.7 million for 2013  
20 and \$253.0 million for TY 2014. DRA’s adjustments to Nuclear Operations are  
21 proposed for the IT projects in MWC 2F (Nuclear). Otherwise, DRA accepts PG&E’s  
22 expenditure request for Nuclear Operations.

23                           The following table summarizes PG&E’s request and DRA’s recommendation  
24 for the MWC’s within Nuclear Operations.  
25

1  
2  
3  
4

**Table 12-18  
Energy Supply Capital Expenditures for 2012-2014  
Nuclear Operations  
(In Thousands of Dollars)**

Description	DRA Recommended			PG&E Proposed <sup>22</sup>		
	2012	2013	2014	2012	2013	2014
MWC 03	\$241	\$211	\$222	\$205	\$211	\$222
MWC 04	\$820	\$1,220	\$1,220	\$1,018	\$1,220	\$1,220
MWC 05	\$2,049	\$1,065	\$1,065	\$1,720	\$1,065	\$1,065
MWC 20	\$260,538	\$209,659	\$240,848	\$263,658	\$209,659	\$240,848
MWC 2F	\$3,309	\$3,517	\$9,632	\$2,950	\$4,090	\$11,200
Total	\$266,957	\$215,672	\$252,987	\$269,550	\$216,245	\$254,555

5 **A. Historical Nuclear Operations Capital Spending**

6 Capital projects for the 2,240 MW Diablo Canyon Power Plant (DCPP) are  
7 recorded in MWC 20. Capital spending for MWC 20 peaked in 2008 due to the  
8 steam generator replacement project for the two nuclear units at DCPP.

9 MWC 03 (Office Furniture & Equipment), MWC 04 (Fleet/Auto Equipment),  
10 MWC 05 (Tools & Equipment) all have stable spending patterns, given their  
11 relatively small budgets. MWC 2F, Building IT Applications and Infrastructure, was  
12 first allocated to Nuclear Operations in 2011.

13 The following table shows the recorded data for Nuclear Operations by MWC.

14  
15  
16

**Table 12-19  
2007-2012 Recorded Data for Nuclear Operations by MWC  
(In Thousands of Dollars)**

Description	2007	2008	2009	2010	2011	2012
MWC 03	\$131	\$209	\$40	\$206	\$179	\$241
MWC 04	\$1,944	\$1,33	\$425	\$204	\$634	\$20
MWC 05	\$1,154	\$2,057	1,305\$	\$1,030	\$1,856	\$2,049
MWC 20	\$215,881	\$363,476	\$305279	\$173535	\$230,821	\$260,538
MWC 2F	\$0	\$0	\$0	\$0	\$5,877	\$3,309
Total	\$233,846	\$396,105	\$314,048	\$179,481	\$239,367	\$266956

17 Source: 2007-2011 data from Ex. PG&E-6 Workpapers at WP 3-77; 2012 data from PG&E Data  
18 Response DRA\_108-03.

<sup>22</sup> Ex. PG&E-6 at p. 3-96.

1                   **B. Forecast Nuclear Operations Capital Spending**

2                           **1. 2012 Nuclear Operations Capital Forecast**

3                   DRA adopts the 2012 recorded capital expenditures for the 2012 forecast for  
4 Nuclear Operations capital. This will result in a \$3.6 million decrease from PG&E’s  
5 forecast to \$267.0 million.

6                           **2. 2013 Nuclear Operations Capital Forecast**

7                   DRA accepts PG&E’s 2013 forecast for Nuclear Operations capital except for  
8 the IT projects in MWC 2F. As discussed in the Hydro section above, DRA  
9 recommends that only 86 percent of the planned MWC 2F budgets should be  
10 adopted for the forecast. DRA recommends that PG&E’s MWC 2F (Nuclear) for  
11 2013 be decreased by \$0.57 million. Based on review of PG&E’s testimony and  
12 workpapers, DRA accepts all other elements of PG&E’s forecast.

13                           **3. 2014 Nuclear Operations Capital Forecast**

14                   DRA accepts PG&E’s 2014 forecast for Nuclear Operations capital except for  
15 the IT projects in MWC 2F. As discussed in the Hydro section above, DRA  
16 recommends that 86 percent of PG&E’s planned MWC 2F budgets be adopted for  
17 the forecast budgets. DRA recommends that PG&E’s MWC 2F (Nuclear) for 2014 be  
18 decreased by \$1.6 million, which also results in a total adjustment to the 2014  
19 Nuclear capital forecast of \$1.6 million.

20                           **a. 2014 Nuclear Operations Major Capital Projects**

21                   PG&E plans for 25 major capital projects for the DCP in 2014 totaling  
22 \$108.6 million.<sup>23</sup> The five largest projects in terms of planned expenditures are  
23 depicted in Table 12-20:  
24

---

<sup>23</sup> Ex. PG&E-6 at p. 3-37.



1  
2  
3

**Table 12-20**  
**2014 Major Capital Projects for Nuclear Operations**  
**(in Millions of Dollars)**

<b>Major Capital Project Description</b>	<b>2014 Budget</b>
Flow Accelerated Corrosion Replacements: addresses corrosion and thinning pipe walls	\$10.5
Independent Spent Fuel Storage Installation – Upgrade Pad: complete fuel storage pad project	\$26.1
Eagle 21 Replacement: upgrade process controls	\$10.8
Passive Reactor Coolant Pump Thermal Seal: new leakage protection system	\$13.7
Licensing Basis Verification Project: information/documentation upgrades.	\$19.6
Subtotal (5 projects)	\$80.7
Total (25 projects)	\$108.6

4 DRA reviewed these projects for reasonableness and accepts PG&E's  
5 forecast.

6 **b. PG&E's Proposed Diablo Canyon Regulatory**  
7 **Balancing Account**

8 PG&E proposes a new two-way Diablo Canyon Regulatory Balancing  
9 Account to address the uncertainty of cost recovery for capital items that may be  
10 necessary due to regulatory requirements imposed by the Nuclear Regulatory  
11 Commission (NRC).<sup>24</sup> Cost recovery is uncertain due to the difficulty in forecasting  
12 potential new regulatory requirements between General Rate Cases, according to  
13 PG&E. A two-way balancing account would ameliorate this problem, PG&E argues,  
14 by allowing the company to recover any revenue requirement not currently in rates if  
15 unforeseen (at the time of the General Rate Case forecast) costs are imposed. The  
16 two-way feature would also have the utility return unspent funds which would have  
17 been collected in rates but turned out to be unnecessary for the identified  
18 programs.<sup>25</sup>

<sup>24</sup> Ex. PG&E-6 at pp. 3-90-3-91.

<sup>25</sup> PG&E identifies four program categories in Table 3-8 in Ex. PG&E-6, p. 3-91.

1           The two-way balancing account is unnecessary and should be rejected. The  
2 uncertainty of NRC actions discussed by PG&E has not materialized. Without any  
3 evidence of an actual problem, there is no justification for creating a separate,  
4 special “bucket” of capital budgets for potential new NRC mandates. PG&E has  
5 addressed NRC regulatory requirements for the life of DCPD and has managed to  
6 balance safety needs, reliability, NRC uncertainty, and rate recovery without any  
7 previously reported problem. The three-year rate case cycle for request and  
8 approval of the Nuclear Operations capital budgets should be sufficient without a  
9 two-way balancing account for certain projects. If and when there becomes a  
10 particular problem, PG&E can make a request through a special application.

11 **VI. DISCUSSION / ANALYSIS OF FOSSIL AND OTHER**  
12 **GENERATION OPERATIONS**

13           This section discusses PG&E’s request for and DRA’s analysis of Fossil and  
14 Other Generation Operations capital expenditures for 2012-2014. The PG&E-owned  
15 fleet of gas-fired power plants consists of (1) Gateway Generating Station; (2)  
16 Colusa Generating Station and (3) Humboldt Bay Generating Station. Each of these  
17 power plants began commercial operation in 2009 or 2010, and they have a  
18 combined operating capacity of 1400 megawatts (MW).<sup>26</sup>

19           PG&E also owns 10 photovoltaic (PV) and three fuel cell generation facilities.  
20 The PV units range between .07 MW to 20 MW of generating capacity. The fuel cell  
21 facilities range between 0.2 MW and 1.4 MW of capacity. The PV and fuel cell  
22 projects were approved by the Commission in earlier proceedings.<sup>27</sup>

23           PG&E’s showing also discusses ongoing decommissioning activities at three  
24 retired power plants.<sup>28</sup> The capital expenditure request for these activities is not

---

<sup>26</sup> Ex. PG&E-6 at p.4-1.

<sup>27</sup> Ex. PG&E-6 at p.4-21-4-25.

<sup>28</sup> Ex. PG&E-6 at p. 4-54.

1 included PG&E's Fossil and Other Generation Operations capital budgets.<sup>29</sup>

2 However, DRA's recommendation regarding this request is discussed below.

3 The following table summarizes PG&E's 2012-2014 request and DRA's  
4 recommendation for Fossil and Other Generation Operations capital expenditures.

5  
6  
7  
8

**Table 12-21**  
**Energy Supply Capital Expenditures for 2012-2014**  
**Fossil and Other Generation Operations**  
**(In Thousands of Dollars)**

Description <sup>30</sup>	DRA Recommended			PG&E Proposed <sup>31</sup>		
	2012	2013	2014	2012	2013	2014
MWC 03	\$12	\$20	-	-	\$20	-
MWC 05	\$65	\$625	\$791	-	\$625	\$791
MWC 2F	\$186	-	-	\$195	-	-
MWC 2R	\$394	\$3,379	\$	\$442	\$3,379	-
MWC 2S	\$7,371	\$6,280	\$1,448	\$7,364	\$6,280	\$1,448
MWC 2T	\$126	\$1,250	\$1,075	\$150	\$1,250	\$1,075
MWC 2U	\$3,143	-	-	\$3,198	-	-
MWC 3A	-	\$41	\$41	\$0	\$40	\$41
MWC 3D	\$369	-	-	-	-	-
Total	\$11,668	\$11,593	\$3,355	\$11,348	\$11,593	\$3,355

<sup>29</sup> DRA understands the request for this activity's capital expense (MWC 55) is contained in Ex. PG&E-7.

<sup>30</sup> Fossil and Other Operations Major Work Category (MWC) Key:

MWC 03	Office Furniture and Equipment
MWC 05	Tools and Equipment
MWC 2F	Building Information Technology (IT) Applications and Infrastructure
MWC 2R	Install/Replace Fossil Safety and Regulatory Requirements
MWC 2S	Install/Replace Fossil Generating Equipment
MWC 2T	Install/Replace Fossil Buildings and Grounds
MWC 2U	Construct New Fossil Generation
MWC 3A	Install/Replace Alternative Generation, Safety and Regulatory
MWC 3B	Install/Replace Alternative Generating Equipment
MWC 3D	Construct New Alternative Generation

<sup>31</sup> Ex. PG&E-6 at p. 4-57.



1 does not forecast any MWC 23 costs for IT projects in the Fossil and Other  
2 Operations area for 2013.

3 **3. 2014 Fossil/Other Capital Forecast**

4 Based on review of PG&E’s testimony, workpapers, and discovery responses,  
5 DRA accepts PG&E’s 2014 forecast for Fossil/Other capital expenditures. PG&E  
6 does not forecast any MWC 23 costs for IT projects in the Fossil and Other  
7 Operations area for 2014.

8 **4. Forecast Decommissioning Work**

9 As discussed earlier, PG&E is engaged in power plant decommissioning work  
10 at three retired power plants.<sup>33</sup> PG&E forecast for this work in MWC 55 is shown in  
11 the following table.

12 **Table 12-23**  
13 **MWC 55 Decommissioning and Environmental Remediation**  
14 **Fossil and Other Generation Operations**  
15 **(In Thousands of Dollars)**

Description	PG&E Proposed <sup>34</sup>		
	2012	2013	2014
MWC 55	\$51,100	\$21,200	\$11,500

16 Based on review of PG&E’s testimony and workpapers, DRA accepts PG&E’s  
17 estimates for MWC 55.  
18

---

<sup>33</sup> Humboldt Bay Power Plant, Hunters Point Power Plant, and Kern Power Plant. Ex. PG&E-6, p. at 4-53.

<sup>34</sup> Ex.PG&E-6 at p.4-54.

1 **VII. DISCUSSION / ANALYSIS OF ENERGY PROCUREMENT**

2 This section discusses PG&E’s capital expenditures request for 2012-2014  
 3 for the Energy Procurement (EP) Administration function. PG&E’s EP organization is  
 4 responsible for the front office (dispatch) and back office (settlements) activities, as  
 5 well as the long-term planning of PG&E’s electric and gas supply portfolios.<sup>35</sup>

6 There are two MWC’s associated with EP. The largest cost driver is MWC 2F  
 7 (EP), Building Information Technology (IT) Applications and Infrastructure. The other  
 8 category is MWC 23, Implement Real Estate Strategy.

9 The following table summarizes PG&E’s request and DRA’s recommendation  
 10 for Energy Procurement Administration capital expenditures for 2012-2014.

11 **Table 12-24**  
 12 **Energy Supply Capital Expenditures for 2012-2014**  
 13 **Energy Procurement**  
 14 **(In Thousands of Dollars)**

Description	DRA Recommended			PG&E Proposed <sup>36</sup>		
	2012	2013	2014	2012	2013	2014
MWC 23	\$1,024	\$2,200	-	\$4,000	\$2,200	-
MWC 2F	\$19,430	\$21,964	\$29,154	\$34,360	\$25,540	\$33,900
Total	\$20,454	\$24,164	\$29,154	\$38,360	\$27,740	\$33,900

15 As discussed below, DRA’s adjustments to PG&E’s EP forecast are attributed  
 16 to (1) use of the recorded 2012 expenditures, and (2) the DRA’s recommendation  
 17 regarding MWC 23 IT projects.<sup>37</sup>

<sup>35</sup> Ex. PG&E-5, at pp.5-1 – 5-2.

<sup>36</sup> Ex. PG&E-6 at p. 5-47.

<sup>37</sup> Ex. DRA-18.



1                                   **2. 2013 Forecast Energy Procurement Capital**

2                   For the 2013 EP capital forecast, DRA’s IT recommendation<sup>39</sup> for MWC 2F  
3 (EP) is applied to the IT projects proposed by PG&E. The result is a proposed \$3.6  
4 million downward adjustment to PG&E’s forecast. DRA accepts PG&E’s forecast for  
5 MWC 23, which is budgeted for the AEPH project.

6                                   **3. 2014 Forecast Energy Procurement Capital**

7                   For the 2014 EP capital forecast, DRA’s recommendation<sup>40</sup> for MWC 2F (EP)  
8 is applied to the IT projects proposed by PG&E. The result is a proposed \$4.7 million  
9 downward adjustment to PG&E’s forecast. There are no expenditures in PG&E’s  
10 forecast for MWC 23 for 2014.

---

<sup>39</sup> Ex. DRA-18.

<sup>40</sup> Id.