

Docket:	:	<u>12-12-012/-013</u>
Exhibit Number	:	<u>DRA-03</u>
Commissioner	:	<u>M. Ferron</u>
Admin. Law Judge	:	<u>M. Darling</u>
Witness	:	<u>K. McNabb</u>
	:	



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

**Report on the
2012 Nuclear Decommissioning Cost
Triennial Proceeding for
Pacific Gas and Electric Company**

Diablo Canyon Decommissioning Cost Estimate;
Rate of Return on PG&E's Nuclear Decommissioning
Trust Funds; and Revenue Requirements for Diablo
Canyon and Humboldt Bay Power Plants

Public Version

San Francisco, California
September 20, 2013

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ATTACHMENTS

Attachment 1: PG&E response to DRA Data Request DRA-6-KMC, Q.1

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Attachment 4: PG&E response to DRA Data Request DRA-6-KMC, Q.2

Attachment 5: PG&E response to DRA Data Request DRA-6-KMC, Q.3.

Attachment 6: PG&E response to DRA Data Request DRA-10-KMC, Q.1.

1 **1. INTRODUCTION**

2 This exhibit presents the Division of Ratepayer Advocates' (DRA)
3 analyses and recommendations regarding:

- 4 • Pacific Gas and Electric Company's (PG&E) Diablo Canyon
5 Power Plant (DCPP) nuclear decommissioning cost estimate;
- 6 • Calculation of the revenue requirements for the Nuclear
7 Decommissioning Trusts regarding Diablo Canyon Units 1 & 2
8 and the Humboldt Unit 3; and,
- 9 • Rate of Return for all of PG&E's Nuclear Decommissioning
10 Trust Funds, as presented in PG&E's 2012 Nuclear
11 Decommissioning Cost Triennial Proceeding (NDCTP),
12 Application (A.) 12-12-012.

13 **2. SUMMARY OF RECOMMENDATIONS**

14 DRA recommends the following:

- 15 • The Commission approve an estimated CPUC -jurisdictional
16 annual revenue requirement for nuclear decommissioning
17 (excluding the revenue requirements associated with
18 SAFSTOR O&M) in an amount of no more than \$173.651
19 million.
- 20 • Table 2-1 below shows a comparison of DRA's recommended
21 decommissioning contributions and PG&E's proposed
22 contributions:

23 **Table 2-1**
24 **Comparison of Nuclear Decommissioning Revenue Requirements**
25

	Trust Funds	DRA Recommended	PG&E Proposed	Difference in Millions
1	Diablo Canyon Units 1 & 2	\$65.551	\$82.517	\$16.966
2	Humboldt Unit 3	\$108.100	\$120.383	\$12.283
3	Total	\$173.651	\$202.900	\$29.249

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- PG&E should use the most recent Trust Fund Balances to calculate the revenue requirements for both Humboldt Bay Power Plant and Diablo Canyon Power Plant.
- PG&E should use a [REDACTED] Low-Level Radioactive Waste Burial Escalation Rate to calculate the revenue requirement for its Humboldt Bay Power Plant instead of the 7.33% proposed in its application.

10 3. PROCEEDING BACKGROUND

11 On December 21, 2012, PG&E filed its 2012 NDCTP Application¹
12 seeking a total estimated 2014 CPUC-jurisdictional revenue requirement
13 for nuclear decommissioning in the amount of \$212.897 million, which is
14 composed of the following elements:

- \$82.517 million annual revenue requirement for contributions to the tax qualified Diablo Canyon Power Plant ND Trusts;
- \$120.383 million annual revenue requirement for contributions to the tax qualified Humboldt Unit 3 ND trust;
- \$9.997 million in estimated annual revenue requirements for 2014; \$9.876 million in annual revenue requirements for 2015; and \$9.475 million in annual revenue requirements for 2016 and thereafter for Humboldt Unit 3 SAFSTOR O&M.

23 On June 17, 2013, ALJ Darling issued a Scoping Memo ² which
24 consolidated this proceeding with A.12-12-013, the joint application of

¹ Application of Pacific Gas and Electric Company in its 2012 Nuclear Decommissioning Cost Triennial Proceeding, A.12-12-012 filed December 21, 2012.

² Scoping Memo and Ruling of Assigned Commissioner Mark Ferron and Administrative Law Judge Melanie M. Darling dated June 17, 2013.

1 Southern California Edison Company and San Diego Gas and Electric
2 Company for the 2012 NDCTP. The Scoping Memo also bifurcated the
3 schedule for the two proceedings. Accordingly, the reasonableness of the
4 identified past and future decommissioning costs at Humboldt Bay Power
5 Plant are scheduled for review in the other track of the 2012 NDCTP. All
6 other NDCTP issues, such as rate of return on all ND trust funds and
7 calculation of revenue requirements, are addressed in this proceeding.

9 4. **OVERVIEW OF PG&E'S PROPOSAL**

10 PG&E's 2012 NDCTP Application requests a \$168.627 million (or
11 381%) increase over its \$44.27 million currently authorized revenue
12 requirement. PG&E seeks Commission approval for the following:

- 13 (1) To collect through CPUC-jurisdictional electric rates an annual
14 revenue requirement commencing January 1, 2014, in the
15 amount of \$82.517 million to fund the Diablo Canyon Units 1
16 and 2 tax qualified trust funds, to adjusted subsequently by
17 advice letter filing;
- 18 (2) To collect through CPUC-jurisdictional electric rates effective
19 January 1, 2014, \$120.383 million in annual revenue
20 requirements for the Humboldt Unit 3 nuclear
21 Decommissioning Trusts;
- 22 (3) To collect through CPUC-jurisdictional electric rates for
23 funding Humboldt Unit 3 Safe Long-term Protective Storage
24 (SAFSTOR) Operation and Maintenance (O&M), costs
25 estimated at \$9.997 million in 2014, \$9.876 million in 2015,
26 and \$9.475 million in 2016 and thereafter;
- 27 (4) To find PG&E's Diablo Canyon Units 1 & 2 decommissioning
28 cost estimates and associated trust contributions and analysis

1 are reasonable and in accordance with §§ 8321 through 8330
2 of the California Public Utilities Code;

3 (5) To continue collecting the revenue requirement associated
4 with ND trust contribution and Humboldt Unit 3 SAFSTOR
5 O&M costs through a non-bypassable charge as specified in
6 California Public Utilities Code § 379;

7 (6) To continue utilizing the NDAM as authorized by D.99-10-057;

8 (7) If actual expenditures on decommissioning of Humboldt
9 should exceed the balance in the trust funds, to record any
10 such excess amounts in an account for which it could seek
11 recovery in the next NDCTP; and

12 (8) To affirm as reasonable and prudent PG&E's treatment of
13 revenue requirements and trust contributions in 2013.

14 **5. DISCUSSION AND ANALYSES OF PG&E'S DIABLO CANYON**
15 **POWER PLANT DECOMMISSIONING COST ESTIMATE**

16 The 2012 decommissioning cost estimates for Diablo Canyon Units
17 1 & 2 presented in PG&E's Prepared Testimony are \$2,786.1 million and
18 \$2,759.9 million for the DECON and SAFSTOR options, respectively.

19 These estimates include an overall project contingency of 25%.³ DRA has
20 reviewed PG&E's 2012 decommissioning cost estimate and presents its
21 analyses and recommendations below.

22 **A. 25% is an acceptable contingency factor for**
23 **the Diablo Canyon decommissioning cost**
24 **estimate in this proceeding**

25 PG&E has imputed a 25% overall project contingency in its nuclear
26 decommissioning cost estimate for Diablo Canyon Units 1 and 2,

³ PG&E 2012 NDCTP Prepared Testimony, p. 2-1.

1 increasing the approximately 18%⁴ which TLG calculated by individual
2 decommissioning activity, to 25%. DRA does not oppose this 25% overall
3 contingency given that it is an estimate, and plant decommissioning is not
4 likely to occur for at least 10 years.⁵

5 However, DRA does not agree that 25% is a standard project
6 contingency that should be used for all decommissioning estimates in the
7 future. Over the course of the Commission's past NDCTP proceedings the
8 amount of contingency approved as part of decommissioning cost
9 estimates has decreased from 50%⁶ to the present rate (25%). When
10 PG&E ultimately conducts a site-specific engineering and
11 decommissioning study in preparation for decommissioning Diablo Canyon
12 Units 1 and 2, it should provide a more accurate estimate and item-by-item
13 contingency factors for the decommissioning work to be completed at
14 Diablo Canyon.

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16 **6. DISCUSSION AND ANALYSIS OF PG&E'S NUCLEAR**
17 **DECOMMISSIONING REVENUE REQUIREMENT CALCULATION**

18 PG&E requested that the Commission approve an annual revenue
19 requirement \$82.517 million for funding the Diablo Canyon Units 1 and 2
20 tax qualified trust funds and \$120.383 million in annual revenue
21 requirements for the Humboldt Unit 3 nuclear Decommissioning Trusts.
22 DRA's analyses and recommendations regarding PG&E's nuclear

⁴ TLG estimate a 17.5% contingency for the SAFSTOR alternative and 17.9% for the DECON alternative. Diablo Canyon Power Plant Decommissioning Cost Analysis, Section 3, Page 6 of 27.

⁵ The two nuclear units are licensed until 2024 and 2025. PG&E 2012 NDCTP Prepared Testimony, p. 3-2.

⁶ D.07-01-003, p. 27.

1 decommissioning contributions and revenue requirement are presented
2 below.

3 **A. The Commission should use the most up-to-**
4 **date Trust Fund Balances when calculating**
5 **PG&E's Nuclear Decommission Revenue**
6 **Requirements.**

7 PG&E filed its 2012 NDCTP application on December 12, 2012, and
8 based its revenue requirement calculations on its trust fund balances as of
9 December 31, 2011⁷. These balances were almost a year old when PG&E
10 filed its 2012 NDCTP application and will be over two years old by the time
11 the Commission issues a decision. In order to obtain the most accurate
12 revenue requirement, DRA urges the Commission to use the most recent
13 trust fund balances when approving PG&E's revenue requirements which
14 will be in effect for the next three years. The updated trust fund balances
15 as of June 30, 2013, are shown in table 6-1 below.⁸

16
17 **Table 6-1**
18 **Updated Trust Fund Balances**
19 **June 30, 2013**
20

Plant	Trust Fund Balance (Market Value)
Diablo Canyon Unit 1 CPUC and FERC Qualified Trust	\$975,542,647
Diablo Canyon Unit 2 CPUC and FERC Qualified Trusts	\$1,286,639,285
Humboldt Unit 3 CPUC Qualified, CPUC Non-Qualified and FERC Qualified Trusts	\$222,799,682

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⁷ PG&E 2012 NDCTP Prepared Testimony, p. 3-9.

⁸ PG&E response to DRA Data Request DR-6-KMC, Q.1.

1 **B. PG&E should be required to use the Low**
2 **Level Radioactive Waste escalation rate that**
3 **is specified in their Contract with WCS**

4 In its Application PG&E included a 7.33% escalation rate for Low
5 Level Radioactive Waste Burial at Humboldt Bay. PG&E states:

6 Due to the few data points, lack of sites and
7 continued uncertainties regarding where LLRW
8 waste will be disposed of, PG&E believes that
9 escalation rates for LLRW burial costs should be
10 consistent among the plants addressed in this
11 proceeding.⁹

12 While using a 7.33 percent LLRW escalation rate is consistent with
13 the rate used for San Onofre Nuclear Generating Station and DCP, ¹⁰
14 HBPP is not in the same situation as SONGS or DCP. HBPP is in the
15 process of actively decommissioning and already has a contract in place
16 for the disposal of HBPP's low level radioactive waste. The Waste Control
17 Specialists (WCS) contract specifies an annual increase based on [REDACTED]
18 [REDACTED].¹¹ Additionally, because HBPP already has
19 contracts in place, much of the uncertainty that PG&E referred to as an
20 aspect of the LLRW Burial escalation rate has been eliminated, justifying a
21 lower escalation rate.

22 In data requests, DRA asked PG&E to support their use of a 7.33%
23 LLRW escalation rate for Humboldt Bay instead of a rate more consistent
24 with the increases based on [REDACTED] that are specified in its contract
25 with WCS. PG&E stated:

26 [REDACTED]
27 [REDACTED]

⁹ PG&E 2012 NDCTP Prepared Testimony, p. 5-7.

¹⁰ PG&E 2012 NDCTP Prepared Testimony, p. 3-7.

¹¹ Attachment 1 to PG&E response to TURN Data Request 1, Q.3.

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[REDACTED].¹²

The Commission has procedures in place to prevent the disclosure of allegedly confidential and commercially sensitive information. The issue of confidentiality should not factor into a utility’s calculation of an escalation rate and definitely should not be considered a legitimate reason for a utility to provide the Commission with an inaccurate escalation rate.

In D.11-07-003, the Commission did specify that escalation rates for LLRW burial costs addressed in the 2012 NDCTP as an area where common assumptions should be used across utilities to “improve the accuracy, transparency and comparability of the decommissioning cost estimates submitted to the Commission.”¹³

As stated before, PG&E is in the process of actively decommissioning Humboldt Bay Unit 3. It has contracts in place for waste disposal and is not merely providing estimates, as in the case for SONGS and Diablo. It is difficult to believe that the Commission meant for this decision to permit the use of unsubstantiated estimates instead of a contractually obligated escalation rate.

From the beginning of July 2012 through the end of June 2013 the [REDACTED].¹⁴ Accordingly, DRA believes [REDACTED] to be a far more appropriate low-level radioactive waste burial escalation rate to use in the Humboldt Bay revenue requirement calculation than the 7.33% shared escalation rate that was used in PG&E’s application.

¹² PG&E response to DRA Data Request DRA-5-KMC, Q.5. PG&E asserts confidentiality over this data response.

¹³ D. 11-07-003, Finding of Fact 13, Conclusion of Law 1 and Ordering Paragraph 1.

¹⁴
[REDACTED]

1 **C. DRA recommends a 2014 nuclear**
2 **decommissioning revenue requirement for**
3 **contributions in an amount of no more than**
4 **\$173.651 Million**

5 DRA recommends a total estimated CPUC -jurisdictional annual
6 revenue requirement for nuclear decommissioning (excluding the revenue
7 requirements associated with SAFSTOR O&M) in an amount of no more
8 than \$173.651 million. DRA's recommendation is \$29.249 million lower
9 than PG&E's request of \$202.9 million. This revenue requirement is
10 comprised of:

- 11 • \$65.551 Million annual revenue requirement for contributions to the
12 qualified Diablo Canyon Power Plant (DCPP) ND Trusts for Diablo
13 Canyon Units 1 & 2¹⁵; and
- 14 • \$108.1 Million annual revenue requirement for contributions to the
15 qualified Humboldt Unit 3 ND Trusts¹⁶.

16 In its application and accompanying testimony, PG&E omitted the
17 balances of its FERC Qualified Trusts from its contribution revenue
18 requirement calculation. The change to the annual contributions for DCPP
19 recommended above was calculated using the balances from both the
20 CPUC and FERC Qualified Trusts as of December 31, 2012.¹⁷ PG&E
21 claims that it can only run its revenue requirement model with end-of-year
22 balances, thus it has used the balances shown in Table 6-2 to calculate
23 the above revenue requirement for contributions for the Diablo Unit 1 & 2
24 Trusts¹⁸.

¹⁵ PG&E response to DRA Data Request DR-6-KMC, Q.2.

¹⁶ PG&E response to DRA Data Request DR-6-KMC, Q.3.

¹⁷ PG&E response to DRA Data Request DR-6-KMC, Q.2.

¹⁸ PG&E response to DRA Data Request DR-10-KMC, Q.1.

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Table 6-2
Updated Trust Fund Balances
December 31, 2012

Plant	Trust Fund Balance (Market Value)
Diablo Canyon Unit 1 CPUC and FERC Qualified Trust	\$919,785,143
Diablo Canyon Unit 2 CPUC and FERC Qualified Trusts	\$1,223,903,695

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7 The Humboldt Unit 3 annual revenue requirement for contributions
8 shown above was calculated using the balances from both the CPUC and
9 FERC Qualified Trusts as of June 30, 2013. Additionally, the Humboldt
10 Unit 3 contribution revenue requirement was calculated using the [REDACTED]
11 LLRW Burial Escalation Rate that is being recommended by DRA instead
12 of the 7.33% escalation rate submitted in PG&E's application.¹⁹

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¹⁹ PG&E response to DRA Data Request DR-6-KMC, Q.3.

1 **7. QUALIFICATIONS AND PREPARED TESTIMONY OF KATHERINE C.**
2 **MCNABB**

3 Q.1 Please state your name and business address.

4 A.1 My name is Katherine McNabb. My business address is 505 Van
5 Ness Avenue, San Francisco, California, 94102.

6 Q.2 By whom are you employed and in what capacity?

7 A.2 I am employed by the California Public Utilities Commission as a
8 Public Utilities Regulatory Analyst I in the Division of Ratepayer
9 Advocates Energy Cost of Service and Natural Gas Branch.

10 Q.3 Briefly describe your relevant educational background and work
11 experience.

12 A.3 I received a Bachelor of Arts Degree in Political Science and minor
13 in Agriculture Business from California Polytechnic State University,
14 San Luis Obispo. I previously worked in DRA's Communications
15 Policy Branch from 2008-2010. I previously testified about nuclear
16 decommissioning issues related to Humboldt Bay Power Plant Unit
17 #3.

18 Q.4 What is the purpose of your testimony?

19 A.4 I am responsible for Exhibit DRA-01, Humboldt Bay Power Plant Unit
20 #3 Cost Estimates, SAFSTOR O&M Estimates and Reasonableness
21 of Completed Projects.

22 Q.5 Does that complete your prepared testimony?

23 A.5 Yes, it does.
24

Attachment 1: PG&E response to DRA Data Request DRA-6-KMC, Q.1

PACIFIC GAS AND ELECTRIC COMPANY
Nuclear Decom Cost Tri 2012
Application 12-12-012
Data Response

PG&E Data Request No.:	DRA_009-01		
PG&E File Name:	NuclearDecomCostTri2012_DR_DRA_009-Q01		
Request Date:	September 16, 2013	Requester DR No.:	DRA-6-KMC
Date Sent:	September 18, 2013	Requesting Party:	Division of Ratepayer Advocates
PG&E Witness:	Ted Huntley	Requester:	Katherine C. McNabb

QUESTION 1

What are the current Nuclear Decommissioning Trust Fund balances for Humboldt Bay Unit #3 and Diablo Canyon Units #1 and #2 (both qualified and non-qualified) as of June 30, 2013?

ANSWER 1

The Trust Fund balances for Humboldt Unit 3 and Diablo Canyon Units 1 and 2 as of June 30, 2013 are provided in the table below.

Pacific Gas and Electric Company
2012 NDCTP
Trust Balances as of June 30, 2013

	CPUC Qualified	CPUC Nonqualified	FERC Qualified	Total
DCPP Unit 1	969,434,796	-	6,107,851	975,542,647
DCPP Unit 2	1,280,531,434	-	6,107,851	1,286,639,285
Humboldt Bay Unit 3	219,796,533	1,784,447	1,218,702	222,799,682
	2,469,762,764	1,784,447	13,434,403	2,484,981,614

Attachment 2: PG&E response to TURN Data Request 1, Q.3

PG&E asserts confidentiality over this data response

Attachment 3: PG&E response to DRA Data Request DRA-5-KMC, Q.5

PG&E asserts confidentiality over this data response

Attachment 4: PG&E response to DRA Data Request DRA-6-KMC, Q.2

PACIFIC GAS AND ELECTRIC COMPANY
Nuclear Decom Cost Tri 2012
Application 12-12-012
Data Response

PG&E Data Request No.:	DRA_009-02		
PG&E File Name:	NuclearDecomCostTri2012_DR_DRA_009-Q02		
Request Date:	September 16, 2013	Requester DR No.:	DRA-6-KMC
Date Sent:	September 18, 2013	Requesting Party:	Division of Ratepayer Advocates
PG&E Witness:	Shaun Halverson and Niel Jones	Requester:	Katherine C. McNabb

QUESTION 2

Please calculate an updated annual revenue requirement for contributions to the Diablo Canyon Power Plant (DCPP) ND Trusts for Diablo Canyon Units 1 & 2 using the updated balances for the DCPP ND Trusts provided in response to Question #1 of this data request.

ANSWER 2

The updated annual revenue requirements for contributions to the DCPP Trusts are as follows:

DCPP Unit #1	\$44.287 million
DCPP Unit#2	\$21.264 million

In developing the contribution and revenue requirement for DCPP, PG&E used the December 31, 2012 Trust Fund balance rather than June 30, 2013, because the NDCTP contributions model is an annual model and cannot reflect mid-year impacts. These amounts include the FERC Qualified trust fund balance. The FERC Qualified amount was inadvertently omitted from the revenue requirement provided in PG&E's Prepared Testimony.

As stated in PG&E's Prepared Testimony, PG&E will update the DCPP 2014 contributions and revenue requirements approved by the Commission using the December 31, 2013 Trust Fund balances, as required by Federal Treasury regulations for its IRS Schedule of Ruling Amounts.

Attachment 5: PG&E response to DRA Data Request DRA-6-KMC, Q.3.

PG&E asserts confidentiality over this data response

Attachment 6: PG&E response to DRA Data Request DRA-10-KMC, Q.1.

**PACIFIC GAS AND ELECTRIC COMPANY
Nuclear Decom Cost Tri 2012
Application 12-12-012
Data Response**

PG&E Data Request No.:	DRA_010-01		
PG&E File Name:	NuclearDecomCostTri2012_DR_DRA_010-Q01		
Request Date:	September 19, 2013	Requester DR No.:	DRA-10-KMC
Date Sent:	September 19, 2013	Requesting Party:	Division of Ratepayer Advocates
PG&E Witness:	Ted Huntley	Requester:	Katherine McNabb

QUESTION 1

Please provide the December 31, 2012 Diablo Trust Balances that were used to calculate the rev req in response #2? Also, per our conversation this morning, I would like a brief explanation of why the Diablo #2 Trust fund balance has decreased between March and June.

ANSWER 1

The Diablo Canyon Trust balances as of December 31, 2012 are provided in the table below.

**Pacific Gas and Electric Company
2012 NDCTP
Trust Balances as of December 31, 2012**

	CPUC Qualified	CPUC Nonqualified	FERC Qualified	Total
DCPP Unit 1	914,178,507		5,606,636	919,785,143
DCPP Unit 2	1,218,297,060		5,606,636	1,223,903,695

The Diablo Canyon Unit 2 Trust Fund decrease between March and June 2013 is primarily due to negative returns for treasury bonds over that time period.