#### **Diablo Canyon Nuclear Power Plant, Unit 1** Plant name:

**Docket Number:** 

**50-275** 

1	The minimum financial assurance (MFA) estimate pursuant to 10 CFR 50.75(b) & (c):	\$580,300,000
	Did the licensee identify the amount of estimated radiological funds? (Y/N)	Y

2 The total amount of dollars accumulated at the end of the appropriate year: (see below)

	Licensee:	% Owned:	Category:	Amount in Trust Fund:		
	Pacific Gas & Electric	100.00%	1	\$738,900,000		
-		-	-		Total Trust Fund Balance	\$738,900,000

Schedule of the annual amounts remaining to be collected: (provided/none) 3

provided

Assumptions used in determining rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections: (see below)

	_							Post-RAI	
Rate of Return on Earnings	Escalation Rate	Rate(s) of Other Factors	Real Rate of Return	PUC Verified (Y/N)	Allowed through Decom (Y/N)	RAI Needed (Y/N)	PUC Verified (Y/N)	Allowed through Decom (Y/N)	Rates Determined (Y/N)
variable <sup>2</sup>	variable <sup>2</sup>		variable <sup>2</sup>	N	N	Y	Y	N	Y

5 Any contracts upon which the licensee is relying? (Y/N)

Any modifications to a licensee's method of providing decommissioning funding assurance? (Y/N) 6

Any material changes to trust agreements? (Y/N)

N

If a change has occurred, the reviewer will document on this sheet that a change has occurred and identify the reviewer who will evaluate the change: (see below)

Signature: Michael Purdie and Jo Ann Simpson Date: 07/12/2011

Spreadsheet created by: Aaron Szabo, Shawn Harwell Formulas verified by: Clayton Pittiglio

<sup>&</sup>lt;sup>1</sup> Licensee calculated MFA higher than NRC calculations. Justification, including factors used, were provided to NRC for review.

<sup>&</sup>lt;sup>2</sup> Rates provided are variable because the rates are not consistent throughout the licensee(s) and/or years of operation/decommission

### Datasheet 2

**Diablo Canyon Nuclear Power Plant, Unit 1** 50-275 Plant name: **Docket Number:** 

> Month: Day Year: **12** 31 **2010**

**Date of Operation: Termination of Operations:** 2 11 2024

BWR/PWR	<u>MWth</u>	<u>1986\$</u>	ECI	Base Lx		<u>Lx</u>	Px	Latest Month Px	Base Px	Fx	Latest Month Fx	Base Fx		<u>Ex</u>		<u>Bx</u>
PWR	3411	\$105,000,000	112.5	2.06	0.65	2.32	1.676	191.4	114.2	3.049	250.0	82.0	0.13	2.253	0.22	12.28

**NRC Minimum:** \$472,584,981 **Site Specific:** \$583,900,000

			Amount of NRC Minimum/Site	
Licensee:	% Owned:	Category	Specific:	Amount in Trust Fund:
Pacific Gas & Electric	100.00%	1	\$583,900,000	\$738,900,000
	•		Total Fund Balance:	\$738,900,000

#### Step 1: **Earnings Credit:**

Years Left Trust Fund Balance: Real Rate of Return per year in License **Total Earnings:** Does Licensee Pass: \$971,825,049 YES \$738,900,000 2%

#### Step 2:

# Accumulation:

Value of Annuity per year

(amount/See Annuity		Number of Annual	_
 Sheet)	Real Rate of Return per year	Payments:	Total Annuity:
See Annuity Sheet	See Annuity Sheet	2	See Total Step 2

_		Years remaining after	
Total Annuity	Real Rate of Return per year	annuity	Total Step 2:
See Total Step 2	See Annuity Sheet	N/A	\$12,242,362

Total Step 1 + Step 2	Does Licensee Pass:
\$984,067,411	YES

#### Step 3: **Decom Period:**

		Decom	Total Earnings for
Total Earnings:	Real Rate of Return per year	Period:	Decom:
\$984,067,411	2%	7	\$73,158,360

Total of Steps 1 thru 3:	Does Licensee Pass:	Shortfall:
\$1,057,225,771	YES	NO

Signature: Michael Purdie and Jo Ann Simpson

### Datasheet 2

2024

50-275

**Diablo Canyon Nuclear Power Plant, Unit 1** Plant name: **Docket Number:** 

> Month: Year: Day 12 31 **2010** 11 2

If licensee is granted greater than 2% RRR

**Date of Operation:** 

**Termination of Operations:** 

### Step 4: **Earnings Credit:**

		Years Left		
Trust Fund Balance:	Real Rate of Return per year	in License	Total Earnings:	Does Licensee Pass:
\$738,900,000	See Step 4 Analysis Sheet	13.84	\$1,348,289,962	YES

#### Step 5: Accumulation:

Value of Annuity per year See Annuity Sheet	Real Rate of Return per year See Annuity Sheet	Number of Annual Payments: 2	Total Annuity: See Total Step 4	
Total Annuity	Real Rate of Return per year	Years remaining after annuity	Total Step 5	
See Total Step 4	See Annuity Sheet	N/A	\$15,040,190	
			Total Step 4 + Step 5 \$1,363,330,152	Does Licensee Pass: YES

#### Step 6: **Decom Period:**

_		Decom	Total Earnings for
Total Earnings:	Real Rate of Return per year	Period:	Decom:
\$1,363,330,152	2.95%	7	\$153,852,328

Total of Steps 4 thru 6:	Does Licensee Pass:	Shortfall:
\$1,517,182,480	YES	NO

Signature: Michael Purdie and Jo Ann Simpson

## **ANNUITY**

**Termination of Operations:** 11 2 2024

Year	Annuity:	Real Rate of Return:	Total Accumulation
2011	\$4,700,000	2%	\$6,181,787
2012	\$4,700,000	2%	\$6,060,575

**Total:** \$12,242,362

Signature: Michael Purdie and Jo Ann Simpson

# **ANNUITY**

**Termination of Operations:** 11 2 2024

If licensee is granted greater than 2% RRR

Year	Beginning year contributions	Real Rate of Return:	End of year contributions
2011	\$4,700,000	4.96%	\$4,933,120
2012	\$9,633,120	4.92%	\$10,107,070

Total: \$15,040,190

Signature: Michael Purdie and Jo Ann Simpson

# Step 4 Analysis

DFS Report Year: 2010
Current Amount Reported in DTF: \$738,900,000
RRR Applied During Operation: Variable
License Termination: 11/2/2024
Years left in license: 13.84
Site-specific cost-estimate: \$583,900,000

Year	Amount in Trust Fund at Beginning of Year	(Expenses)	Real Rate of Return	Projected Year-End Trust Fund Amount
2011	\$738,900,000	\$0	4.96%	\$775,549,440
2012	\$775,549,440	\$0	4.92%	\$813,706,472
2013	\$813,706,472	\$0	4.88%	\$853,415,348
2014	\$853,415,348	\$0	4.85%	\$894,805,993
2015	\$894,805,993	\$0	4.82%	\$937,935,642
2016	\$937,935,642	\$0	4.80%	\$982,956,552
2017	\$982,956,552	\$0	4.78%	\$1,029,941,876
2018	\$1,029,941,876	\$0	4.77%	\$1,079,070,103
2019	\$1,079,070,103	\$0	4.75%	\$1,130,325,933
2020	\$1,130,325,933	\$0	4.37%	\$1,179,721,176
2021	\$1,179,721,176	\$0	4.01%	\$1,227,027,995
2022	\$1,227,027,995	\$0	3.67%	\$1,272,059,923
2023	\$1,272,059,923	\$0	3.35%	\$1,314,673,930
2024	\$1,314,673,930	\$0	3.05%	\$1,348,289,962

Signature: Michael Purdie and Jo Ann Simpson

Date: 07/12/2011

Secondary Review: Kosmas Lois 7/25/2011

#### **DECON ANALYSIS**

Name of Unit:

Name of Licensee:

Diablo Canyon, Unit 1
Pacific Gas & Electric

Operations Termination Date: 11 2 2024

End of Operations Balance: \$1,348,289,962

Real Rate of Return: 2.00% Post-Shutdown Period

	Beginning Trust	Expense Per	Year			
Year	Fund Balance	Plant	Spent Fuel	Real Rate of Return	End of Year Trust Fund Balance	
2024	\$1,348,289,962	\$19,400,000	N/A	2.00%	\$1,355,661,761	
2025	\$1,355,661,761	\$142,400,000	N/A	2.00%	\$1,238,950,996	
2026	\$1,238,950,996	\$330,900,000	N/A	2.00%	\$929,521,016	
2027	\$929,521,016	\$367,400,000	N/A	2.00%	\$577,037,437	
2028	\$577,037,437	\$171,900,000	N/A	2.00%	\$414,959,185	
2029	\$414,959,185	\$153,000,000	N/A	2.00%	\$268,728,369	
2030	\$268,728,369	\$20,700,000	N/A	2.00%	\$262,712,991	

Signature: Michael Purdie and Jo Ann Simpson

Date: 07/12/2011

Secondary Review: Kosmas Lois 7/25/2011