

Docket: : I.12-10-013/A.13-04-001
Exhibit Number : DRA-02
Commissioner : Florio
Admin. Law Judge : Darling/Dudney
DRA Witness : Y. Lasko



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

**Reply Testimony on San Onofre Nuclear
Generating Station (SONGS) 2012
Replacement Power Cost Calculation
Method**

San Francisco, California
July 10, 2013

TABLE OF CONTENTS

1. INTRODUCTION 1

2. SUMMARY OF RECOMMENDATIONS 1

3. DISCUSSION / ANALYSIS 2

**4. QUALIFICATIONS AND PREPARED TESTIMONY OF YAKOV
LASKO 17**

ATTACHMENTS

1 **1. INTRODUCTION**

2 The Division of Ratepayer Advocates (DRA) presents its reply
3 testimony on the San Onofre Nuclear Generating Station (SONGS) 2012
4 replacement power cost calculation method. DRA's testimony is in
5 response to SCE's Exhibit SCE-03 by Mr. Colin Cushnie and SDG&E's
6 Exhibit SDGE-09 presented by Mr. Andrew Scates.

7
8 **2. SUMMARY OF RECOMMENDATIONS**

9 While DRA does not provide the total aggregate figure of power
10 replacement costs incurred by SCE and SDG&E, DRA has six (6)
11 recommended changes to the utilities' proposed calculation of SONGS
12 power replacement costs:

13 (1) The identical methodology and assumptions should be applied
14 by both utilities.

15 (2) CAISO allocated costs and other market-related costs, including
16 Congestion Revenue Rights, should be included in the calculation.

17 (3) The Platts Daily SP-15 Index Price, as proposed by SCE,
18 should be applied in calculating replacement energy cost.

19 (4) The forecast avoidable cost of nuclear fuel should be excluded
20 in calculating the replacement energy cost estimate. Instead, the actual
21 cost should be credited back to SCE and SDG&E upon the resale of the
22 nuclear fuel inventory, net of storage and overhead cost incurred.

23 (5) A 1.21 percent outage rate should be applied in calculating
24 replacement energy cost estimate, not the 2.8 percent proposed by SCE
25 and SDG&E.

26 (6) SCE and SDG&E should be required to file an amended
27 December 2012 SONGSMA report with the replacement power costs for
28 all of 2012 recalculated based on the recommendations contained in this
29 testimony.

1 **3. DISCUSSION / ANALYSIS**

2
3 **Q.1 What is the purpose of your testimony?**

4 **A.1** My testimony addresses the respective San Onofre Nuclear
5 Generating Station (SONGS) power replacement cost calculations of SCE
6 and SDG&E as presented in SCE's Exhibit SCE-03 by Mr. Colin Cushnie
7 and SDG&E's Exhibit SDGE-09 presented by Mr. Andrew Scates. The
8 replacement power costs I intend to address in this testimony include three
9 components: (a) replacement energy cost estimate, (b) capacity-related
10 cost estimate, and (c) other market-related cost estimates.

11
12 **Q.2 Please separately describe the methodology and assumptions**
13 **used by SCE and SDG&E in calculating power replacement costs.**

14 **A.2** The two utilities use similar methodologies and assumptions in
15 calculating replacement power cost. However, there is a difference that
16 can be summarized by the two formulas applied by each utility. SCE's
17 "estimated replacement energy cost for each hour in which a net short
18 position is assumed to exist can be expressed using the following formula:

19
$$Q * (P - F) = \text{Hourly Replacement Energy Cost}$$

20 Where,

21 Q = Portion of SCE's forecast hourly net short position which could
22 be attributed to the SONGS outages, adjusted for the 2.8% historical
23 average rate for SONGS (expressed in MWh);

24 P = daily average SP-15 index price (expressed in \$/MWh);

25 F = the avoided cost of nuclear fuel (expressed in \$/MWh)."¹

¹ Exhibit SCE-03 p.5, lines 3-11.

1 Meanwhile, SDG&E's "estimated replacement energy cost in which a
2 net short position is assumed to exist can be expressed using the following
3 formula:

$$4 \quad Q * (P - F) + O = \text{Replacement Energy Cost}$$

5 Where,

6 Q = Portion of SDG&E's forecast hourly net short position which
7 could be attributed to the SONGS outages, adjusted for the 2.8%
8 historical outage rate for SONGS (expressed in MWh);

9 P = CAISO SP-15 Trading Hub day-ahead price expressed in
10 \$/MWh);

11 F = The avoided cost of nuclear fuel (expressed in \$/MWh).

12 O = CAISO Allocated costs (CRR, SCP, GMC, Imbalance charges,
13 PIRP) and QF Dispatchable costs."²

14 Comparing the two formulas, it is evident that SDG&E includes an
15 additional component, "O," which SDG&E designated as CAISO Allocated
16 costs. SCE omits this component from its replacement energy cost
17 estimate in its Exhibit SCE-03, Section B, though these costs are
18 addressed separately in Section E as "Other Market-Related Cost
19 Estimates" and Section D as "Capacity-Related Cost Estimate."

20 The utilities also differ on what measure to use, defined by
21 component "P" in their respective formulas, for the purpose of estimating
22 replacement energy cost estimate, a component of power replacement
23 costs. SCE describes "P" as equal to the "daily average SP-15 index price
24 (expressed in \$/MWh),"³ while SDG&E equates "P" to "CAISO SP-15
25 Trading Hub day-ahead price expressed in \$/MWh)."⁴

² Exhibit SDGE-09, p. 6, lines 3-13.

³ Exhibit SCE-03, p. 5, line 10.

⁴ Exhibit SDGE-09, p. 6, line 10.

1 Furthermore, both utilities use different values to account for the
 2 avoided cost of nuclear fuel, as represented by component "F". While both
 3 utilities treat the unused nuclear fuel as an avoided cost and subtract this
 4 avoided cost from the estimated replacement energy cost "because the
 5 unused fuel can be used later in the event that the SONGS generators are
 6 restarted,"⁵ they use different forecasting assumptions in their calculations.
 7 These forecasting differences lead to differing nuclear fuel cost
 8 assumptions presented in the table below:

9
 10 **Table 1: Assumed Nuclear Fuel Costs of SCE and SDG&E for SONGS**
 11 **in 2012**

	Unit 2	Unit 3
SCE*	\$7.533/MWh	\$5.605/MWh for Jan-1, 2012 – Oct-31, 2012 \$7.794/MWh for Nov-1, 2012 – Dec-31, 2012
SDG&E	\$7.723/MWh	\$6.457/MWh for Jan-1, 2012 – Dec-31, 2012

12 Note:

13 *For comparison purposes, SCE's assumed weighted average cost of nuclear fuel for
 14 Unit 3 is approximately \$5.97/MWh in 2012.

15
 16 **Q.3 Should CAISO Allocated costs/Other Market-Related Cost**
 17 **Estimates, including Congestion Revenue Rights, be included in the**
 18 **calculation of replacement power costs?⁶**

19 **A.3 Yes, CAISO Allocated costs and Other Market-Related Cost**
 20 **Estimates, including Congestion Revenue Rights, should be included in**
 21 **the calculation of replacement power costs. In SCE's Rebuttal to TURN's**
 22 **Testimony, Edison replicates *Table XVII-4 Miscellaneous 2012 Market-***

⁵ Exhibit SCE-03, p. 4, lines 23-24.

⁶ SDG&E includes "O" in their replacement energy cost estimate, while SCE does not. Therefore, using the term power replacement costs to fit in "O" would be correct for both utilities, while using the replacement energy cost estimate to fit in "O" would only be correct for SDG&E.

1 *Related Charges Associated with the SONGS Outages* (see below) from
2 its Exhibit SCE-03 and acknowledges that the Real-Time Imbalance
3 Energy Charges, Auxiliary Load Costs and the SONGS PIRP Allocation
4 Charges can be considered replacement costs because they were incurred
5 as a result of power charges assessed to SCE to replace generation from
6 SONGS.⁷

7
8 **Table 2:**

9 ***SCE's Table XVII-4: Miscellaneous 2012 Market-Related Charges***
10 ***Associated with the SONGS Outages***

Charge Description	Amount
Real-Time Imbalance Energy Charges for Day-Ahead Schedule Deviations	\$27,245
Congestion Revenue Rights Charges	\$9,640,009
On-site Auxiliary Load Costs	\$7,089,443
PIRP Allocation Charges to SONGS	\$101,786
Total	\$16,858,483*

11
12 **Note:**

13 * SCE filed an updated version of Exhibit SCE-03 on July 8, 2013 to reflect the results of
14 CAISO invoice settlement true-ups. This true-up reduces the total miscellaneous
15 market-related charges by \$1,256,613 to \$15,601,870.

16
17 However, SCE argues that the Congestion Revenue Rights (CRRs)
18 Charges should not be considered in an estimate of the market cost of
19 replacement power citing a number of reasons, including that "it would be
20 inequitable and illogical to selectively consider the cost outcome of a single
21 component of SCE's portfolio hedges that existed prior to the SONGS

⁷ Exhibit SCE-8, pp. 15-17.

1 outages, and to include an estimate of such a cost in an estimate of the
2 market cost of replacement power.”⁸

3 DRA disagrees. While SONGS was unavailable for most of 2012,
4 SCE’s and SDG&E’s CRRs have generally incurred negative charges
5 which were borne by ratepayers. DRA agrees that it is inequitable to focus
6 on a single component of utilities’ portfolio hedges. A more equitable
7 approach would be to evaluate the impact of the SONGS outage on SCE’s
8 (and SDG&E’s) total portfolio of hedges. This would allow the Commission
9 to determine a more accurate estimate of the impact the SONGS outages
10 had on the utilities’ final value of financial CRR hedge transactions. This
11 determination would require the Commission to direct the two utilities to
12 run a power flow analysis and production cost model which would require
13 additional time to complete due to the complexity involved and, despite
14 that effort, could be prone to further contention and litigation. DRA is not
15 aware of a more simple methodology. Therefore, if SCE and SDG&E are
16 not directed by the Commission to perform a hedging portfolio-wide impact
17 analysis and modeling of the SONGS outage, the SONGS CRR charges
18 reported by SCE and SDG&E in their SONGS balancing accounts should
19 be adopted and applied.

20
21 **Q.4 What is DRA’s recommendation for the “P” component of**
22 **SCE’s and SDG&E’s formula, where each utility uses a different**
23 **measure of “P”?**

24 **A.4** In the formula “P” represents the price for replacement energy.
25 DRA recommends that an identical measure of “P” be applied in
26 calculating replacement energy cost estimate. DRA agrees with both

⁸ Exhibit SCE-8, p. 17, lines 11-14.

1 utilities that CAISO's hourly day-ahead Integrated Forward Market price at
2 the SONGS generation nodes is not the appropriate measure for "P."⁹

3 SCE and SDG&E propose different price benchmarks. SCE
4 proposes to use SP-15 day-ahead index prices (Platts Daily Index Price for
5 SP-15 Trading Hub), while SDG&E proposes to use the CAISO SP-15
6 Trading Hub day-ahead, hourly prices for purpose of estimating its costs of
7 replacement energy.¹⁰ Despite some large hourly differences between
8 these two benchmarks during some days, over the long-term, the prices
9 between them even out. The average price for Platts SP-15 Trading Hub
10 Daily Index Price and CAISO SP-15 Trading Hub Day-Ahead Hourly Prices
11 from January 9, 2012 until December 31, 2012 is \$30.20/MWh and
12 \$30.27/MWh, respectively, which translates to a 0.23% difference.

13 DRA has no objection to either price benchmark so long as one is
14 chosen and applied identically in the calculation of replacement energy
15 cost estimate. That said, DRA has a slight preference for using the Platts
16 Daily SP-15 Index Price for the following reasons. First, as SCE notes, it is
17 commonly used to settle financial transactions for energy transacted for
18 delivery in southern California¹¹ and SCE and SDG&E engage in these
19 financial transactions.¹² Second, the energy produced by SONGS would
20 not only serve SCE's and SDG&E's service territories but the SP-15 load
21 as a whole. Third, it represents the expected volume-weighted average
22 price at which willing buyers and sellers transact the next day in the spot
23 market, such as CAISO's IFM. Given SCE's assertion that "SCE relies on

⁹ Exhibit SCE-03, p. 3, lines 17-20.

¹⁰ Platts SP-15 index represents the expected volume-weighted average price at which buyers and sellers are willing to transact the next day in the spot market, such as CAISO's IFM. CAISO SP-15 Trading Hub Day-Ahead price is the actual average price that generators receive at their respective PNodes within SP-15 zone.

¹¹ Exhibit SCE-03, p. 3, lines 8-9.

¹² Pursuant to telephone conferences between Colin Cushnie and Yakov Lasko.

1 the bilateral day-ahead SP-15 market to reduce its daily net open positions
2 before transacting the balance of its requirements in the CAISO's IFM,"¹³
3 the use of Platts SP-15 is reasonable in estimating replacement energy
4 costs.

5
6 **Q.5 What is DRA's recommendation for the "F" component of**
7 **SCE's and SDG&E's formula?**

8 **A.5** In their formula, "F" represents the avoided cost of unused nuclear
9 fuel. Both utilities treat the unused nuclear fuel in their respective
10 testimonies as an avoided cost and subtract this avoided cost from the
11 estimated replacement energy costs because "the unused nuclear fuel can
12 be used later in the event that the SONGS generators are restarted.
13 Stated differently, the unused nuclear fuel is an avoided cost if the SONGS
14 generators are restarted."¹⁴ Following SCE's announcement on June 7,
15 2013 to permanently retire SONGS,¹⁵ the assumption that the nuclear fuel
16 at SONGS would be used at a later date is no longer valid. Therefore,
17 DRA recommends excluding the avoidable cost of nuclear fuel, as
18 represented by component "F," from the utilities' calculations of estimated
19 replacement energy costs. If SCE is able to resell the SONGS nuclear
20 fuel inventory, DRA recommends that the proceeds from the resale should
21 be credited back to SCE and SDG&E based on a pro-rata ownership share
22 of SONGS, net of storage and overhead costs incurred related to nuclear
23 fuel inventory prior to the transaction between the buyer and SCE.

24 DRA's recommendation is based on the following assumptions.

25 First, "the nuclear fuel costs represented in the testimony are forecast

¹³ Exhibit SCE-8, p. 20, lines 4-6.

¹⁴ Exhibit SCE-03, p.4, lines 23-25.

¹⁵ See Exhibit A: http://edison.com/files/060713_news1.pdf.

1 values based on total in-core cost of the fuel amortized over the power
2 production capacity of the core for the given refueling cycle.”¹⁶ The price
3 that SCE will receive in the market will better reflect the true value of
4 SONGS’ nuclear fuel inventory than forecasted values estimated by the
5 utilities.

6 Second, not all nuclear fuel inventories may be resalable. According
7 to SCE, “once the fuel is fabricated as a fuel assembly, the fuel generally
8 cannot be resold.”¹⁷ Meanwhile, the nuclear fuel that would fall into the
9 pre-core fuel inventory (prior to being fabricated as a fuel assembly), in
10 general, can be resold, subject to certain contractual requirements
11 concerning the resale of nuclear fuel product. Given this contractual
12 uncertainty it would be much simpler to let the market decide on the value
13 of SONGS nuclear fuel inventory rather than make assumptions on how
14 much of the nuclear fuel inventory can be resold and at what price.

15 Finally, the record is not clear regarding how the storage costs and
16 operating expenses related to nuclear fuel inventory would be accounted
17 for under the formulas proposed by SCE and SDG&E in light of SCE’s
18 decision to retire SONGS Units 2 and 3. DRA’s recommendation of netting
19 the nuclear fuel storage and operating expenses incurred prior to a resale
20 transaction against the future proceeds SCE will receive from the resale of
21 SONGS nuclear fuel inventory is both simple, accurate, and reasonable.

22
23 **Q.6 Does DRA have any other recommended corrections that**
24 **should be made to SCE’s and SDG&E’s calculation of replacement**
25 **energy cost estimate?**

¹⁶ See Exhibit B: DRA’s 1st Data Request, Question 06.8, emphasis added.

¹⁷ See Exhibit C: DRA’s 1st Data Request, Question 06.1, emphasis added; *see also*, 6.9 and 6.10 (w/o attachments).

1 **A.6** Yes, DRA believes that the “Q” component, defined as SCE’s and
2 SDG&E’s hourly net short position which could be attributed to the SONGS
3 outage, should be 1.21% and not 2.8% as described in SCE’s Exhibit
4 SCE-03 and SDG&E’s Exhibit SDGE-09.

5 Both SCE and SDG&E have used a 2.8% annual average forced
6 outage rate, which reflects the forced outage rate experienced by SONGS
7 Units 2 and 3 for the ten-year period 2002-2011. This reduces their
8 estimates of replacement energy costs. DRA agrees that a reduction can
9 be applied, but disagrees that a 2002-2011 ten-year period is an
10 appropriate measure to use and instead recommends a 2007-2011 five-
11 year period with a 1.21% annual forced outage rate as the more
12 appropriate measure.

13 SCE provided DRA with workpapers detailing: (a) SONGS Unit 2
14 Outages, (b) SONGS Unit 3 Outages, and (c) and Excel *2002-2011*
15 *SONGS 2-3 Forced Outage Calcs FINAL* listing the raw outage data and
16 the calculations behind the SONGS forced outage rates for the 2002-2011
17 ten-year period.¹⁸ Based on the data provided by SCE shown in Table 3
18 below, there are three years (highlighted for emphasis) where the annual
19 forced outage rate is abnormally high compared to the calculated 10-year
20 average of 2.8%.

21 /////
22

23 /////
24

25 /////
26

¹⁸ See Exhibit D: DRA’s 1st Data Request, Question 04.

1

Table 3: SONGS Forced Outage Rates 2002-2011

SONGS Forced Outage Rates 2002 - 2011				
	Unit 2		Unit 3	
Year	Days	Rate	Days	Rate
2002	5.3	1.6%	43.0	11.8%
2003	1.5	0.4%	0.0	0.0%
2004	6.2	2.0%	9.4	3.4%
2005	26.8	7.3%	0.0	0.0%
2006	0.0	0.0%	45.5	14.8%
2007	12.9	4.2%	0.0	0.0%
2008	4.1	1.1%	10.5	3.8%
2009	3.1	1.4%	0.0	0.0%
2010	0.0	0.0%	0.0	0.0%
2011	3.1	0.8%	3.7	1.2%
Totals	63.0	2.0%	112.1	3.5%
10-Year Average (both units)				2.8%

2

3 Closer examination of SCE’s workpapers reveal that SCE
 4 inadvertently omitted a period (.) between “four” and “three” numbers for
 5 the outage that occurred at Unit 3 on February 27, 2002 thereby increasing
 6 the forced outage from the correct 4.3 days to 43 days and utilized this
 7 erroneous information in their calculations.¹⁹ Table 4 below provides the
 8 corrected and recalculated numbers (highlighted for emphasis).

9 ////

10 ///

11 ///

12

13

14

¹⁹ See Exhibit D: DRA’s 1st Data Request, Question 04.

1

Table 4: Table 2 Recalculated

SONGS Forced Outage Rates 2002 - 2011				
	Unit 2		Unit 3	
Year	Days	Rate	Days	Rate
2002	5.3	1.6%	4.3	1.18%
2003	1.5	0.4%	0.0	0.0%
2004	6.2	2.0%	9.4	3.4%
2005	26.8	7.3%	0.0	0.0%
2006	0.0	0.0%	45.5	14.8%
2007	12.9	4.2%	0.0	0.0%
2008	4.1	1.1%	10.5	3.8%
2009	3.1	1.4%	0.0	0.0%
2010	0.0	0.0%	0.0	0.0%
2011	3.1	0.8%	3.7	1.2%
Totals	63.0	2.0%	73.4	2.30%
10-Year Average (both units)				2.15%

2

3 As shown, the ten-year average forced outage rate drops
4 significantly from 2.8% to 2.15%.

5 Regarding the 26.8 forced outage days experienced by Unit 2 in
6 2005 and 45.5 forced outage days experienced by Unit 3 in 2006, SCE
7 objected to providing further information on the circumstances of these
8 outages.²⁰ Based on information provided to DRA, Unit 2 total forced
9 outage days in 2005 were driven by a 02/15/05 to 03/07/05, 20.7-day
10 forced outage described as "CCW, SDCHX Butterfly Vlv would not
11 OpenFully due to Missing TaperPins"²¹ and Unit 3 total forced outage days
12 in 2006 were driven by a 3/29/2006 to 5/10/2006, 42-day forced outage
13 described as "SIT Manway Repair, Mid Cycle Outage."²²

²⁰ See Exhibit E: DRA's 2nd Data Request, Question 02.1 and Question 02.2.

²¹ See Exhibit D: DRA's 1st Data Request, Question 04.

²² See Exhibit D: DRA's 1st Data Request, Question 04.

1 “SCE chose to use the most recent ten years simply as a reasonable
2 representation of plant forced outages over time, reflecting several fuel
3 cycles for each unit and a wide variety of operational factors. SCE
4 believes the ten-year period adequately captures these parameters without
5 being unnecessarily limiting or expansive.”²³ Without further information
6 on the two outages mentioned above, DRA cannot make a determination
7 on whether these two outages should be treated as outliers that do not
8 reasonably represent the plant forced outages over time or be utilized in
9 the ten-year average forced outage rate calculation. For comparison
10 purposes, DRA provides a new Table 5 that captures the correct forced
11 outage days for Unit 3 in 2002, and ignores the two forced outages
12 mentioned above (highlighted for emphasis) in 2005 and 2006.

13 **Table 5: SONGS 10-year Forced Outage Rates without Feb-15, 2005**
14 **and Mar-29, 2006 Forced Outages**

SONGS Forced Outage Rates 2002 - 2011				
	Unit 2		Unit 3	
Year	Days	Rate	Days	Rate
2002	5.3	1.6%	4.3	1.18%
2003	1.5	0.4%	0.0	0.0%
2004	6.2	2.0%	9.4	3.4%
2005	6.1	1.67%	0.0	0.0%
2006	0.0	0.0%	3.5	1.14%
2007	12.9	4.2%	0.0	0.0%
2008	4.1	1.1%	10.5	3.8%
2009	3.1	1.4%	0.0	0.0%
2010	0.0	0.0%	0.0	0.0%
2011	3.1	0.8%	3.7	1.2%
Totals	42.3	1.4%	31.4	0.98%
10-Year Average (both units)				1.16%

²³ See Exhibit F: DRA’s 2nd Data Request, Question 1.

1 As shown, Unit 2 February 14, 2005 and Unit 3 March 29, 2006
 2 forced outages skew upwards the 10-year SONGS forced outage rate by
 3 almost one percent from 1.16% to 2.15%.

4 As an alternative to SCE and SDG&E's proposed 10-year average
 5 forced outage rate for SONGS, DRA recommends a 5-year average forced
 6 outage rate for SONGS which is equivalent to 1.21%. Utilizing the raw
 7 outage data and replicating SCE's calculation methodology provided in
 8 SCE's Excel attachment (*2002-2011 SONGS 2-3 Forced Outage Calcs*
 9 *FINAL*), DRA was able to re-organize the data and calculate a five-year
 10 forced outage rate which is presented below in Table 6.

11
 12 **Table 6: SONGS Average Forced Outage Rates for Unit 2 and Unit**

	Years from 2012	Forced Outage Rate	Corresponding Year
10-Year Average Corrected*	10	2.15%	2002
10-Year Average Corrected and Adjusted**	10	1.16%	2002
5-Year Average	5	1.21%	2007

13
 14 Note:

15 *The 2.15% 10-year average value incorporates the correction discussed above where
 16 4.3 days should be used instead of 43 days to account for Feb-27, 2002 – Mar-3, 2002
 17 forced outage. Without the correction, the value would be 2.77%.

18 ** The 1.16% 10-year average value was calculated by (a) accounting for the correction
 19 discussed above and (b) ignoring Unit 2 February 14, 2005 and Unit 3 March 29, 2006
 20 forced outages.

21
 22 DRA's recommendation to use a five-year average forced outage
 23 rate from 2007-2011 for SONGS is based on the following assumptions.
 24 First, it is neither limiting nor expansive in its scope and provides sufficient
 25 data points to define the operational characteristics of SONGS. For

1 instance, Unit 2 has experienced six scheduled outages, three of which
2 were refueling outages (U2R15, U2R16, and U2R17), three tripped
3 outages and two forced outages. Meanwhile, Unit 3 experienced five
4 scheduled outages, two of which were refueling outages (U3C15 and
5 U3C16), one tripped outage and one forced outage.

6 Second, SCE informed DRA that "the annualized forced outage rate
7 from steam generator replacement completion through December 31, 2011
8 was approximately 0.5% for Unit 2 and 1.2% for Unit 3"²⁴ which is
9 approximately 0.8% for Units 2 and 3, aggregated. The Unit 2 Steam
10 Generator Replacement Project (SGRP) was completed on April 11, 2010
11 and Unit 3 SGRP was completed on February 18, 2011. Given that the
12 SGRP represented a major operational change at SONGS, DRA believes
13 it is reasonable to place a greater emphasis on this fact. To do so, a
14 shorter time frame is more appropriate to use that is (a) limiting enough to
15 put more weight on the operational changes at SONGS in 2010 and 2011
16 caused by SGRP, yet (b) expansive enough to take into account the
17 operational events such as tripped, forced, and scheduled outages over
18 time.

19 Finally, as discussed above, if you exclude the Unit 2 February 14,
20 2005 and Unit 3 March 29, 2006 forced outages from the 10-year
21 calculation, the resulting 10-year average forced outage rate will be 1.16%
22 which compares favorably to DRA's proposed 5-year average forced
23 outage rate of 1.21%. For these reasons, DRA believes that the "Q"
24 component, defined as SCE's and SDG&E's hourly net short position
25 which could be attributed to the SONGS outage, should be adjusted by
26 1.21% and not by 2.8% (2.15% if accounted for the error) as described in
27 SCE's Exhibit SCE-03 and SDG&E's Exhibit SDGE-09.

²⁴ See Exhibit G: DRA's 1st Data Request, Question 05.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

Q.7 Does DRA have any recommendations on the Capacity-Related Costs presented by SCE and SDG&E in their respective testimonies?

A.7 Yes, the identical methodology and assumptions should be applied in both utilities' calculations of Capacity-Related Costs. SCE includes three forms of capacity-related costs in their calculations: (a) CAISO Capacity Procurement Mechanism (CPM), (b) CAISO Standard Capacity Product (SCP) penalty charges, and (c) Resource Adequacy (RA) replacement capacity costs. By contrast, SDG&E only includes two forms of capacity-related costs: (a) CAISO CPM charges and (b) RA replacement capacity costs. SDG&E does not ignore SCP penalty charges because they are included in the "O" component of the replacement energy cost estimate that I discussed in A.3 of this testimony. Nevertheless, it would be easier to account for, compare, and follow each of the utilities Capacity-Related Costs (and other components of power replacement costs discussed above) if identical methodologies and assumptions were used by the utilities. SCE and SDG&E should be required to file an amended December 2012 SONGSMA report with the replacement power costs for all of 2012 recalculated applying the identical methodology and assumptions adopted by the Commission in this phase of this proceeding.

Q.8 Does this conclude your testimony?

A.8 Yes.

1 **Qualifications and Prepared Testimony of Yakov Lasko**

2 **Q.1 Please state your name and business address.**

3 **A.1 My name is Yakov Lasko. My business address is 505 Van Ness**
4 **Avenue, San Francisco, California, 94102.**

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

6 **A.2 I am employed by the California Public Utilities Commission as a**
7 **Public Utilities Regulatory Analyst II in the Division of Ratepayer**
8 **Advocates, Electricity Planning & Policy Branch.**

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

11 **A.3 I received a Bachelor of Arts Degree in Political Economy of**
12 **Industrial Societies from the University of California, Berkeley. I also**
13 **possess a Master of Science Degree in Corporate Finance from**
14 **SDA Bocconi School of Management located in Milan, Italy. I joined**
15 **the Commission on January 3, 2012 in DRA's Electricity Planning**
16 **and Policy Branch. In DRA, I have worked on Resource Adequacy,**
17 **Flexible Capacity and Long-Term Planning and Procurement**
18 **proceedings. At present, I am involved in ERRA Compliance and**
19 **SONGS OII proceedings.**

20 **Q.4 What is the purpose of your testimony?**

21 **A.4 I am responsible for Exhibit DRA-02, Reply Testimony on San**
22 **Onofre Nuclear Generating Station (SONGS) 2012 Replacement**
23 **Power Cost Calculation Method.**

24 **Q.5 Does that complete your prepared testimony?**

25 **A.5 Yes, it does.**

EXHIBIT A



An EDISON INTERNATIONAL® Company

2244 Walnut Grove Ave., Rosemead, Calif., 91770

NEWS

www.edison.com/pressroom

FOR IMMEDIATE RELEASE

Media Contact: Media Relations (626) 302-2255
Investor Relations Contact: Scott Cunningham (626) 302-2540

Southern California Edison Announces Plans to Retire San Onofre Nuclear Generating Station

Company Will Continue Its Work with State Agencies on Electric Grid Reliability

ROSEMEAD, Calif. (June 7, 2013) — Southern California Edison (SCE) has decided to permanently retire Units 2 and 3 of its San Onofre Nuclear Generating Station (SONGS).

"SONGS has served this region for over 40 years," said Ted Craver, Chairman and CEO of Edison International, parent company of SCE, "but we have concluded that the continuing uncertainty about when or if SONGS might return to service was not good for our customers, our investors, or the need to plan for our region's long-term electricity needs."

Both SONGS units have been shut down safely since January 2012. Unit 2 was taken out of service January 9, 2012, for a planned routine outage. Unit 3 was safely taken offline January 31, 2012, after station operators detected a small leak in a tube inside a steam generator manufactured by Mitsubishi Heavy Industries (MHI). Two steam generators manufactured by MHI were installed in Unit 2 in 2009 and two more were installed in Unit 3 in 2010, one of which developed the leak.

In connection with the decision, SCE estimates that it will record a charge in the second quarter of between \$450 million and \$650 million before taxes (\$300 million - \$425 million after tax), in accordance with accounting requirements.

After months of analysis and tests, SCE submitted a restart plan to the Nuclear Regulatory Commission (NRC) in October 2012. SCE proposed to safely restart Unit 2 at a reduced power level (70%) for an initial period of approximately five months. That plan was based on work done by engineering groups from three independent firms with expertise in steam generator design and manufacturing.

The NRC has been reviewing SCE's plans for restart of Unit 2 for the last eight months, during which several public meetings have been held. A recent ruling by an adjudicatory arm of the NRC, the Atomic Safety and Licensing Board, creates further uncertainty regarding when a final decision might be made on restarting Unit 2. Additional administrative processes and appeals could result in delay of more than a year. During this period, the costs of maintaining SONGS in a state of readiness to restart and the costs to replace the power SONGS previously provided would continue. Moreover, it is uneconomic for SCE and its customers to bear the long-term repair costs for returning SONGS to full power operation without restart of Unit 2. SCE has concluded that efforts are better focused on planning for the replacement generation and transmission resources which will be required for grid reliability.

"Looking ahead," said Ron Litzinger, SCE's President, "we think that our decision to retire the units will eliminate uncertainty and facilitate orderly planning for California's energy future."

Litzinger noted that the company has worked with the California Independent System Operator, the California Energy Commission and the California Public Utilities Commission in planning for Southern California's energy needs and will continue to do so.

"The company is already well into a summer reliability program and has completed numerous transmission upgrades in addition to those completed last year," Litzinger said. "Thanks to consumer conservation, energy efficiency programs and a moderate summer, the region was able to get through last summer without electricity shortages. We hope for the same positive result again this year," Litzinger added, "although generation outages, soaring temperatures or wildfires impacting transmission lines would test the system."

In connection with the retirement of Units 2 and 3, San Onofre anticipates reducing staff over the next year from approximately 1,500 to approximately 400 employees, subject to applicable regulatory approvals. The majority of such reductions are expected to occur in 2013.

"This situation is very unfortunate," said Pete Dietrich, SCE's Chief Nuclear Officer, noting that "this is an extraordinary team of men and women. We will treat them fairly." SCE will work to ensure a fair process for this transition, and will work with the Utility Workers Union of America (UWUA) and the International Brotherhood of Electric Workers (IBEW) on transition plans for the employees they represent.

SCE also recognizes its continuing safety responsibilities as it moves toward decommissioning of the units. SCE's top priority will be to ensure a safe, orderly, and compliant retirement of these units. Full retirement of the units prior to decommissioning will take some years in accordance with customary practices. Actual decommissioning will take many years until completion. Such activities will remain subject to the continued oversight of the NRC.

SCE intends to pursue recovery of damages from Mitsubishi Heavy Industries, the supplier of the replacement steam generators, as well as recovery of amounts under applicable insurance policies.

For updates, please visit www.SONGScommunity.com, or follow us on Twitter at www.twitter.com/SCE_SONGS and on www.facebook.com/SCE.

San Onofre is jointly owned by SCE (78.21 percent), San Diego Gas & Electric (20 percent) and the city of Riverside (1.79 percent).

About Southern California Edison

An Edison International (NYSE:EIX) company, Southern California Edison is one of the nation's largest electric utilities, serving a population of nearly 14 million via 4.9 million customer accounts in a 50,000-square-mile service area within Central, Coastal and Southern California.

###

EXHIBIT B

Southern California Edison
SONGS OII I.12-10-013

DATA REQUEST SET DRA-SCE-006

To: DRA
Prepared by: Walker Matthews
Title: Senior Attorney
Dated: 05/23/2013

Question 06.8:

Subject: Exhibit SCE-ERRA Review of Operations, 2012, Chapter XVII, dated April 2, 2013

6. With respect to the nuclear fuel as described in SCE's Testimony on *ERRA Review of Operations, 2012 Chapter XVII* on page 4, lines 21-25 and page 5, lines 1-2, please provide or answer the following:

6.8 Please explain why the nuclear fuel costs for Unit 3 differ with time. Specifically, why was the nuclear fuel cost for the period of January 1, 2012 through October 31, 2012 assumed to be \$5.605/MWh, while for November 1, 2012 through December 21, 2012 it was assumed to be \$7.794/MWh? Please explain why the nuclear fuel costs for Unit 2 differ from those of Unit 3?

Response to Question 06.8:

SCE objects to the request on the ground that it is vague and ambiguous.

Subject to and without waiving these objections, SCE responds as follows:

The nuclear fuel costs presented in the testimony are forecast values based on total in-core cost of the fuel amortized over the power production capacity of the core for the given refueling cycle. The 2012 forecast assumed that Unit 3 would be operating through October of 2012 as Cycle 16, with a refueling in November and return to full operation in December. As such the base in-core fuel costs changed in November to reflect the new core of Cycle 17.

Unit 2 costs differ from Unit 3 costs due to the variations in core design and the subsequent variations in uranium quantities and enrichment percentages. In addition, unit to unit and cycle to cycle prices vary due to the variable price for uranium and the various fuel production costs. Since SONGS nuclear fuel accounting utilizes FIFO, the costs are different based on when the material or service was acquired.

EXHIBIT C

Southern California Edison
SONGS OII I.12-10-013

DATA REQUEST SET DRA-SCE-006

To: DRA
Prepared by: Walker Matthews
Title: Senior Attorney
Dated: 05/23/2013

Question 06.1:

Subject: Exhibit SCE-ERRA Review of Operations, 2012, Chapter XVII, dated April 2, 2013

6. With respect to the nuclear fuel as described in SCE's Testimony on *ERRA Review of Operations, 2012 Chapter XVII* on page 4, lines 21-25 and page 5, lines 1-2, please provide or answer the following:

6.1 What modifications, if any, are necessary before the nuclear fuel customized for SONGS can be resold? What are the costs of these modifications in nominal dollar terms for the SCE's SONGS nuclear fuel inventory that has not been spoiled or ruined? Who would be responsible for the costs of these modifications?

Response to Question 06.1:

SCE objects to the request on the ground that it is vague and ambiguous, particularly in regard to the terms "modifications," "spoiled," and "ruined," which are not terms utilized in connection with nuclear fuel supply management. In addition, SCE objects to the request on the ground that it is premature, and seeks information that is not properly within the scope of the OII. SCE also objects to the request to the extent it seeks information protected by the attorney client-privilege and attorney work-product doctrine.

Subject to and without waiving these objections, SCE responds as follows:

As explained in Exhibit SCE-3, nuclear fuel supply management consists of a sequence of activities involving the procurement and scheduling of materials and services required to manufacture nuclear fuel assemblies suitable for use in a nuclear power plant. These activities encompass: (1) mining and milling of natural uranium concentrates (U_3O_8), (2) conversion to uranium hexafluoride (UF_6), (3) enrichment (EUP), and (4) design and fabrication of fuel assemblies.

In addition, as explained in SCE's response to TURN-SCE-8, Question Nos. 1a and 1b, SCE accounts for existing fuel inventory for SONGS in two categories: (1) pre-core fuel inventory, and (2) in-core fuel inventory. Pre-core fuel inventory includes the fuel product obtained through the first three nuclear-fuel-supply-management activities listed above (mining and milling, conversion, and enrichment). In-core fuel inventory consists of fuel assemblies that

have been inserted in the reactor core.

In general, the first three nuclear-fuel-supply-management activities listed above (mining and milling, conversion, and enrichment), produce fuel product that can be resold, subject to certain contractual requirements concerning the resale of nuclear fuel product. This fuel product does not have to be reprocessed prior to being resold.

Once the fuel is fabricated as a fuel assembly, the fuel generally cannot be resold. It is technically feasible to reprocess fuel assemblies to resell fuel product. However, it is generally not currently considered to be cost-effective to do so, and there is not a viable market for this service, which has not been done commercially in the United States in the recent past.

**Southern California Edison
SONGS OII 1.12-10-013**

DATA REQUEST SET DRA-SCE-006

To: DRA
Prepared by: Walker Matthews
Title: Senior Attorney
Dated: 05/23/2013

Question 06.9:

Subject: Exhibit SCE-ERRA Review of Operations, 2012, Chapter XVII, dated April 2, 2013

6. With respect to the nuclear fuel as described in SCE's Testimony on *ERRA Review of Operations, 2012 Chapter XVII* on page 4, lines 21-25 and page 5, lines 1-2, please provide or answer the following:

6.9 Please provide any workpapers on SCE's decision to refuel Unit 2 after the Unit 3 forced outage began on January 31, 2012. Please provide estimated cost of the nuclear fuel that was used to refuel Unit 2 after Unit 3 forced outage began in nominal dollar terms, cost per unit, and units of nuclear fuel used.

Response to Question 06.9:

SCE objects to the request on the ground that it is vague and ambiguous. SCE also objects to the request to the extent it seeks information protected by the attorney client-privilege and attorney work-product doctrine.

Subject to and without waiving these objections, SCE responds as follows:

SCE refueled Unit 2 in late February, 2012 (February 26 to February 29) during the planned Unit 2 Cycle 17 RFO, in accordance with the RFO schedule planned for that RFO (see attached). The outage was scheduled for 55 days, with the restart of Unit 2 planned for on or about March 5, 2012. It was reasonable for SCE to refuel Unit 2 in accordance with the planned RFO schedule, given that the extent of the wear conditions in the Unit 3 replacement steam generators was not known at that time.

The unamortized cost of the nuclear fuel added for Unit 2 Cycle 17 is \$121,446,648.91 (SCE Share).

Southern California Edison
SONGS OII 1.12-10-013

DATA REQUEST SET DRA-SCE-006

To: DRA
Prepared by: Walker Matthews
Title: Senior Attorney
Dated: 05/23/2013

Question 06.10:

Subject: Exhibit SCE-ERRA Review of Operations, 2012, Chapter XVII, dated April 2, 2013

6. With respect to the nuclear fuel as described in SCE's Testimony on *ERRA Review of Operations, 2012 Chapter XVII* on page 4, lines 21-25 and page 5, lines 1-2, please provide or answer the following:

6.10 Under the assumption that SONGS will not restart, please provide any workpapers on the estimated cost of the nuclear fuel that was ruined due to the refueling of Unit 2 after January 9, 2012 and Unit 3 after January 31, 2012 in nominal dollar terms, cost per unit, and units of nuclear fuel used. If the nuclear fuel has been used in refueling, can it be salvaged and resold? What is the salvage value of the nuclear fuel that has been used in refueling in nominal terms and as a percentage of the original value prior to refueling?

Response to Question 06.10:

SCE objects to the request on the ground that it is vague and ambiguous, and unintelligible, particularly in regard to the use of the term "ruined," which is not a term utilized in connection with nuclear fuel supply management.

Subject to and without waiving these objections, SCE responds as follows:

The unamortized cost of the nuclear fuel added for Unit 2 Cycle 17 is \$121,446,648.91 (SCE Share).

Unit 3 was not re-fueled, therefore there is no added cost for nuclear fuel for Unit 3.

Putting fuel assemblies in the core as part of the re-fueling effort does not "ruin" the fuel, and, by itself, does not preclude resell. As described in the response to DRA-SCE-006, Question No. 6.1, once the fuel is fabricated as a fuel assembly, the fuel generally cannot be resold. It is technically feasible to reprocess fuel assemblies to resell fuel product. However, it is generally not currently considered to be cost-effective to do so, and there is not a viable market for this service, which has not been done commercially in the United States in the recent past.

EXHIBIT D

Southern California Edison
SONGS OII I.12-10-013

DATA REQUEST SET DRA-SCE-006

To: DRA
Prepared by: Thomas Watson
Title: Manager
Dated: 05/23/2013

Question 04:

Subject: Exhibit SCE-ERRA Review of Operations, 2012, Chapter XVII, dated April 2, 2013

4. Referring to SCE's Testimony on *ERRA Review of Operations, 2012 Chapter XVII* on page 4, lines 18-20, please provide the annual average forced outage rate experienced by SONGS Units 2 and 3 for the five-year period (2007-2011), 3-year period (2009-2011), 2-year period (2010-2011), and one-year period (2011). For the same durations, please provide the annual average forced outage rate experienced by Unit 2 (separate from Unit 3) and for Unit 3 (separate from Unit 2). Please provide the relevant documents, files, and records in support of these numbers.

Response to Question 04:

Attached to this response is a spreadsheet detailing individual Units 2 and 3 annual forced outage rates for years 2002-2011, inclusive; and files containing the supporting outage data.

SONGS Unit 2 Outages

Start date	End date	Days	Type	Description	
10/13/01	2251	10/22/01	1934	8.9 S	MSR and RCP seal outage
10/23/01	0047	10/23/01	1003	0.4 F	MFW, MFW Pump P062 Governor Failure
05/20/02	1106	07/02/02	1515	43.3 S	Cycle 12 Refueling Outage
06/30/02	1838	07/01/02	1734	0.9 T	Human Error, MSIS Actuation due to input of improper SBCs DRM values
11/02/02	0316	11/06/02	1306	4.4 T	MFW, MFW Control Card Failure due to Shorted Amplifier
2/01/03	0309	02/02/03	1607	1.5 T	Human Error, Loss of Excitation due to procedural/personnel error
06/21/03	0623	06/23/03	1018	2.2 S	(PLCEA) 33 position indicator and cable outage
02/09/04	1215	04/06/04	1648	57.2 S	Cycle 13 Refueling Outage, RTD repairs, CT phase differential problems
04/10/04	1150	04/12/04	1952	2.3 F	MFW, Feedwater Pps Tripped due to High Discharge Press. caused by Grounds
11/19/04	0807	11/23/04	0531	3.9 T	MGEN, Stator Ground Trip/ Isophase Bus Louver design
02/03/05	1223	02/08/05	0209	4.6 T	XFMR, Aux Xfmr 2XU1 Diff. Trip due to inadvertent differential Rely Actuation during testing
02/15/05	0231	03/07/05	1954	20.7 F	CCW, SDCHX Butterfly Vlv would not OpenFully due to Missing Taper Pins
04/17/05	0301	04/18/05	1523	1.5 F	FW, Feedwater isolation valve 2HV4052 to repair hydraulic leak
01/03/06	1117	04/22/06	2107	109.4 S	U2C14 Refueling Outage, SIT Manway Repairs.
06/16/07	0038	06/17/07	2208	1.9 S	2HV4048 oil leak repair.
06/20/07	2250	06/29/07	0558	8.3 F	Manual Trip after Instrument Air degradation.
10/21/07	0224	10/25/07	1633	4.6 F	2HV8204 repair solenoid valves.
11/26/07	1147	01/19/08	0620	53.8 S	U2R15 Refueling Outage.
06/01/08	0138	06/03/08	1457	2.5 S	2XM Main Transformer Insulator Replacement.
06/05/08	22:56	06/10/08	01:28	4.1 T	Stator Water Low Flow Trip.
12/28/08	00:38	02/18/09	08:23	52.3 S	U2MC15A Midcycle Outage.
09/13/09	12:41	09/16/09	14:35	3.1 T	Gate #5 Heat Treat Low Vacuum.
09/26/09	23:59	04/11/10	19:14	196.8 S	U2R16 Refueling Outage.
09/08/11	15:37	09/11/11	18:17	T	Southern state grid failure
01/09/11	20:36			S	U2R17 Refueling & Head Replacement Outage

T = Tripped Outage F= Forced Outage S= Scheduled Outage.

Respectfully,

Justin W. Smith
Equipment Reliability
Plant Engineering (D-3A)
San Onofre Nuclear Generating Station

From: RAY SUTTON/SONGS/SCE/EIX
 To: Shawn Smith/SCE/EIX@SCE
 Cc: DALE RILEY/SONGS/SCE/EIX@SCE, DALE WICKMAN/SONGS/SCE/EIX@SCE, Pete Vasquez/SCE/EIX@SCE, JOHN RAMSDELL/SONGS/SCE/EIX@SCE, JOHN MOURER/SONGS/SCE/EIX@SCE
 Date: 03/30/2012 12:02 PM
 Subject: Re: Fw: Historic Capacity Factors



FOR INTERNAL USE ONLY

Start Date	End Date	Days	Type	Description
5/13/1999	2144 5/15/1999	1419	1.7 T	MFW, Control Valve Failed Closed du
5/15/1999	1553 5/16/1999	2040	1.2 F	TBN, High turbine vibration
1/2/2001	1226 2/3/2001	435	31.7 S	Cycle 11 Refueling Outage
2/3/2001	1515 6/1/2001	231	117.5 T	4Kv, 3A07 Bus Fire Event
2/27/2002	1043 3/3/2002	1642	43 T	Human Error, Loss of Switchyard Pow
1/6/2003	1058 2/17/2003	2138	42.4 S	Cycle 12 Refueling Outage
1/24/2004	1955 1/31/2004	2253	7.1 F	CVCS, Letdown Pipe Weld leak
6/4/2004	445 6/6/2004	1229	2.3 F	CIRC, Degraded Circulating Water Pur
9/27/2004	1155 12/28/2004	1552	92.2 S	Unit 3 Cycle 13 Refueling
5/5/2005	101 5/11/2005	50	6 S	FW, Feedwater isolation valve 3HV4C
3/29/2006	438 5/10/2006	55	42 F	SIT Manway Repair, Mid Cycle Outage
10/16/2006	1144 12/12/2006	0519	56.7 S	U3 Cycle 14 Refueling.
12/12/2006	1400 12/16/2006	141	3.5 F	Reactor Coolant Pump Motor M001 O
5/12/2007	432 5/14/2007	59	1.8 S	3XM Main transformer Oil Leak Repai
10/9/2007	1220 11/9/2007	1825	31.2 S	M3C14 Midcycle /Reserve Shutdown.
4/16/2008	1229 5/13/2008	1526	27.1 S	M3C14B Midcycle /Reserve Shutdown
9/1/2008	14:38 9/12/2008	2:49	10.5 F	EDG 3G003 cracked rotor repair outag
10/12/2008	23:35 10/12/2008	0:58	66.1 S	Unit 3 U3C15 RFO.
10/10/2010	1:19 2/18/2011	2:56	131.1 S	Unit 3 U3C16 RFO.
9/8/2011	15:37 9/12/2011	6:32	3.67 T	Southern state grid failure

T = Tripped Outage
 F = Forced Outage
 S = Scheduled Outage

**SONGS Forced Outage Rates
2002 - 2011**

<u>Year</u>	<u>Unit 2</u>		<u>Unit 3</u>	
	<u>Days</u>	<u>Rate</u>	<u>Days</u>	<u>Rate</u>
2002	5.3	1.6%	43.0	11.8%
2003	1.5	0.4%	0.0	0.0%
2004	6.2	2.0%	9.4	3.4%
2005	26.8	7.3%	0.0	0.0%
2006	0.0	0.0%	45.5	14.8%
2007	12.9	4.2%	0.0	0.0%
2008	4.1	1.1%	10.5	3.8%
2009	3.1	1.4%	0.0	0.0%
2010	0.0	0.0%	0.0	0.0%
2011	3.1	0.8%	3.7	1.2%
Totals	63.0	2.0%	112.1	3.5%

10-Year Average (both units) 2.8%

SONGS Unit 2 Outages

<u>Start Date</u>	Sched <u>Days</u>	Forced <u>Days</u>
5/20/2002	43.3	-
6/21/2003	2.2	-
2/9/2004	57.2	-
1/3/2006	109.4	-
6/16/2007	1.9	-
11/26/2007	53.8	-
6/1/2008	2.5	-
12/28/2008	4.0	-
1/1/2009	48.3	-
9/26/2009	96.0	-
1/1/2010	100.8	-
6/30/2002	-	0.9
11/2/2002	-	4.4
2/1/2003	-	1.5
4/10/2004	-	2.3
11/19/2004	-	3.9
2/3/2005	-	4.6
2/15/2005	-	20.7
4/17/2005	-	1.5
6/20/2007	-	8.3
10/21/2007	-	4.6
6/5/2008	-	4.1
9/13/2009	-	3.1
9/8/2011	-	3.1

SONGS Unit 3 Outages

<u>Start Date</u>	Sched <u>Days</u>	Forced <u>Days</u>
1/6/2003	42.4	-
9/27/2004	92.2	-
5/5/2005	6.0	-
10/16/2006	56.7	-
5/12/2007	1.8	-
10/9/2007	31.2	-
4/16/2008	27.1	-
10/12/2008	66.1	-
10/10/2010	82.0	-
1/1/2011	49.1	-
2/27/2002	-	43.0
1/24/2004	-	7.1
6/4/2004	-	2.3
3/29/2006	-	42.0
12/12/2006	-	3.5
9/1/2008	-	10.5
9/8/2011	-	3.7

<u>Year</u>	Sched <u>Days</u>	Forced <u>Days</u>
2002	43.3	5.3
2003	2.2	1.5
2004	57.2	6.2
2005	0.0	26.8
2006	109.4	0.0
2007	55.7	12.9
2008	6.5	4.1
2009	144.3	3.1
2010	100.8	0.0
2011	0.0	3.1

<u>Year</u>	Sched <u>Days</u>	Forced <u>Days</u>
2002	0.0	43.0
2003	42.4	0.0
2004	92.2	9.4
2005	6.0	0.0
2006	56.7	45.5
2007	33.0	0.0
2008	93.2	10.5
2009	0.0	0.0
2010	82.0	0.0
2011	49.1	3.7

3,133 Unit 2 available days (after sched outages)
 3,197 Unit 3 available days (after sched outages)

EXHIBIT E

Southern California Edison
SONGS OII I.12-10-013

DATA REQUEST SET DRA-SCE-007

To: DRA
Prepared by: Russell Archer
Title: Senior Attorney
Dated: 06/14/2013

Question 02.1:

2. In response to DRA-SCE-006, question #4, SCE included an attachment to their response titled "SONGS 2 Outage History 2001-2011" and "SONGS 3 Outage History 1999-2011."

2.1 Referring to file "SONGS 3 Outage History 1999-2011," please forward DRA a copy of a Root Cause evaluation Report, any documents and findings such as NRC Form 366A SCE has filed with NRC, as well as any findings, documents and reports produced by the NRC regarding the forced outage that occurred on March 29, 2006 and described as SIT Manway Repair, Mid Cycle Outage.

Response to Question 02.1:

SCE objects on the grounds that the data request calls for the production of materials that are beyond the scope of, and irrelevant to, the OII in general, and Phase I of the OII in particular.

Southern California Edison
SONGS OII I.12-10-013

DATA REQUEST SET DRA-SCE-007

To: DRA
Prepared by: Russell Archer
Title: Senior Attorney
Dated: 06/14/2013

Question 02.2:

2. In response to DRA-SCE-006, question #4, SCE included an attachment to their response titled "SONGS 2 Outage History 2001-2011" and "SONGS 3 Outage History 1999-2011."

2.2 Referring to file "SONGS 2 Outage History 2001-2011," please forward DRA a copy of a Root Cause evaluation Report, any documents and findings such as NRC Form 366A SCE has filed with NRC, as well as any findings, documents and reports produced by the NRC regarding the forced outage that occurred on February 15, 2005 and described as CCW, SDCHX Butterfly VIv would not Open Fully due to Missing Taper Pins.

Response to Question 02.2:

SCE objects on the grounds that the data request calls for the production of materials that are beyond the scope of, and irrelevant to, the OII in general, and Phase I of the OII in particular.

EXHIBIT F

Southern California Edison
SONGS OII I.12-10-013

DATA REQUEST SET DRA-SCE-007

To: DRA

Prepared by: Thomas Watson

Title: Manager

Dated: 06/14/2013

Question 01:

1. Referring to SCE's Testimony on *ERRA Review of Operations, 2012 Chapter XVII* on page 4, lines 18-20, please explain SCE's reasoning behind choosing a ten-year period 2002-2011 to calculate an annual average forced outage rate. What is SCE's understanding of advantages and disadvantages of using a time period that is above and below a ten-year period?

Response to Question 01:

SCE chose to use the most recent ten years simply as a reasonable representation of plant forced outages over time, reflecting several fuel cycles for each unit and a wide variety of operational factors. SCE believes the ten-year period adequately captures these parameters without being unnecessarily limiting or expansive.

EXHIBIT G

Southern California Edison
SONGS OII 1.12-10-013

DATA REQUEST SET DRA-SCE-006

To: DRA
Prepared by: Thomas Watson
Title: Manager
Dated: 05/23/2013

Question 05:

Subject: Exhibit SCE-ERRA Review of Operations, 2012, Chapter XVII, dated April 2, 2013

5. Please provide the dates when the new steam generators were installed. What was the annualized forced outage rate experienced by SONGS Units 2 and 3, in aggregate, prior to 2012 since the new generators have been installed? What was the annualized forced outage rate experience by SONGS Unit 2 (separate from Unit 3) and for Unit 3 (separate from Unit 2) prior to 2012 since the new generators have been installed? Please provide the relevant documents, files, and records in support of these numbers.

Response to Question 05:

In the context of this question, SCE interprets "the dates when the new steam generators were installed" as the first day each unit was synchronized to the grid and produced power, after completing its respective steam generator replacement (SGR) project. The Unit 2 SGR was completed April 11, 2010; the Unit 3 SGR was completed February 18, 2011.

The annualized forced outage rate from SGR completion through December 31, 2011 was approximately 0.8% for Units 2 and 3, aggregated.

The annualized forced outage rate from SGR completion through December 31, 2011 was approximately 0.5% for Unit 2, and 1.2% for Unit 3.

Please refer to the attachments included with SCE's response to Question 04 for supporting documentation.

CERTIFICATE OF SERVICE

I hereby certify that I have on this date served a copy of **REPLY TESTIMONY ON SAN ONOFRE NUCLEAR GENERATING STATION (SONGS) 2012 REPLACEMENT POWER COST CALCULATION METHOD** to all known parties by either United States mail or electronic mail, to each party named on the official service list in **I.12-10-013 / A.13-04-001**.

Executed on **July 10, 2013**, at San Francisco, California.

/s/ TERRY L. GRAY
TERRY L. GRAY



California Public
Utilities Commission

[CPUC Home](#)

CALIFORNIA PUBLIC UTILITIES COMMISSION

Service Lists

Proceeding: I1210013 - CPUC - OII INTO THE

Filer: CPUC

List Name: LIST

Last changed: July 10, 2013

Parties

DONALD KELLY
UCAN
EMAIL ONLY
EMAIL ONLY, CA 00000
FOR: UTILITY CONSUMERS' ACTION NETWORK

TAM HUNT
EMAIL ONLY
EMAIL ONLY, CA 00000
FOR: CLEAN COALITION

MEGAN HEY
DEP. ATTY. GEN. - OFF. OF THE ATTY. GEN
CALIFORNIA DEPARTMENT OF JUSTICE
COMPANY
300 S. SPRING STREET
FL. GT14E7
LOS ANGELES, CA 90013
FOR: CALIFORNIA ATTORNEY GENERAL KAMALA
COMPANY
D. HARRIS ON BEHALF OF THE PEOPLE OF
CALIFORNIA

MICHAEL R. THORP
ATTORNEY
SOUTHERN CALIFORNIA GAS
555 WEST FIFTH STREET, 14TH
LOS ANGELES, CA 90013-1011
FOR: SOUTHERN CALIFORNIA GAS

NORMAN A. PEDERSEN
ATTORNEY AT LAW
HANNA AND MORTON, LLP
444 SOUTH FLOWER STREET, SUITE 1500
LOS ANGELES, CA 90071
FOR: SOUTHERN CALIFORNIA GENERATION
FORUM/DIRECT
COALITION
COALITION/ALLIANCE FOR

DANIEL W. DOUGLASS
ATTORNEY
DOUGLASS & LIDDELL
21700 OXNARD ST., STE. 1030
WOODLAND HILLS, CA 91367
FOR: WESTERN POWER TRADING

ACCESS CUSTOMER
RETAIL ENERGY MARKETS

GLORIA M. ING
ATTORNEY AT LAW
SOUTHERN CALIFORNIA EDISON COMPANY
COMPANY

WALKER A. MATTHEWS III
SENIOR ATTORNEY
SOUTHERN CALIFORNIA EDISON

2244 WALNUT GROVE AVE. / PO BOX 800
ROOM 390
ROSEMEAD, CA 91770
FOR: SOUTHERN CALIFORNIA EDISON COMPANY
EDISON COMPANY

2244 WALNUT GROVE AVENUE,
ROSEMEAD, CA 91770
FOR: SOUTHERN CALIFORNIA

MARTHA SULLIVAN
COALITION TO DECOMMISSION SAN ONOFRE
2354 CARMEL VALLEY ROAD
DEL MAR, CA 92014
FOR: COALITION TO DECOMMISSION SAN
ONOFRE

MARIA C. SEVERSON, ESQ.
COUNSEL
AGUIRRE MORRIS & SEVERSON
444 WEST C STREET, SUITE 210
SAN DIEGO, CA 92101
FOR: RUTH HENRICKS

JAMES F. WALSH
ATTORNEY
SAN DIEGO GAS & ELECTRIC COMPANY
101 ASH STREET, HQ12B / PO BOX 1831
SAN DIEGO, CA 92101-3017
SOLUTIONS LLC
FOR: SAN DIEGO GAS & ELECTRIC COMPANY

THOMAS CORR
LAW OFFICE OF THOMAS CORR
618 W. LEWIS STREET
SAN DIEGO, CA 92103
FOR: NOBLE AMERICAS ENERGY

SUSAN D. WILSON
DEPUTY CITY ATTORNEY
CORPORATION
CITY OF RIVERSIDE
3900 MAIN STREET, 7TH FLOOR
RIVERSIDE, CA 92501
FOR: CITY OF RIVERSIDE

SABRINA D. VENSUS
A PROFESSIONAL LAW
VENSUS & ASSOCIATES
603 WEST OJAI AVE., STE. F
OJAI, CA 93001
FOR: WORLD BUSINESS ACADEMY

MONA TIERNEY-LLOYD
SR MGR. - WESTERN REG. AFFAIRS
ENERNOC, INC.
PO BOX 378
CAYUCOS, CA 93430
AMERICAN
FOR: ENERNOC, INC.
OF
FOR BLACK
INSTITUTE

ROBERT GNAIZDA
OF COUNSEL
15 SOUTHGATE AVE., STE. 200
DALY CITY, CA 94015
FOR: JT PARTIES (NAT'L ASIAN
COALITION/LATINO BUS. CHAMBER
GREATER LA./ECUMENICAL CTR
CHURCH STUDIES, CHINESE AMERI
FOR EMPOWERMENT)

MARC D. JOSEPH
ADAMS BROADWELL JOSEPH & CARDOZO
COMMISSION
601 GATEWAY BLVD., SUITE 1000
SOUTH SAN FRANCISCO, CA 94080
FOR: COALITION OF CALIFORNIA UTILITY
EMPLOYEES

LAURA J. TUDISCO
CALIF PUBLIC UTILITIES
LEGAL DIVISION
ROOM 5032
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
FOR: DRA

MATTHEW FREEDMAN
THE UTILITY REFORM NETWORK
115 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94104
SUITE 1850
FOR: TURN

COALITION

BRIAN T. CRAGG
ATTORNEY
GOODIN, MACBRIDE, SQUERI, DAY & LAMPREY
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94111
FOR: INDEPENDENT ENERGY PRODUCERS
EFFICIENCY AND

(CEERT)

JOHN M. CUMMINS, ESQ.
ASSOCIATE COUNSEL - DEPT OF THE NAVY
ACTION
FEDERAL EXECUTIVE AGENCIES
1 AVENUE OF THE PALMS, STE. 161
SAN FRANCISCO, CA 94130
FOR ACTION
FOR: FEDERAL EXECUTIVE AGENCIES

JOHN L. GEESMAN
ATTORNEY
DICKSON GEESMAN LLP
1999 HARRISON STREET, STE. 2000
OAKLAND, CA 94612
FOR: ALLIANCE FOR NUCLEAR RESPONSIBILITY

R. THOMAS BEACH
CALIFORNIA COGENERATION COUNCIL
2560 NINTH STREET, SUITE 213A
ADVOCATES
BERKELEY, CA 94710-2557
FOR: CALIFORNIA COGENERATION COUNCIL

CONSUMER

BARBARA GEORGE
WOMEN'S ENERGY MATTERS
PO BOX 548
FAIRFAX, CA 94978-0548
FOR: WOMEN'S ENERGY MATTERS (WEM)

EVELYN KAHL
ATTORNEY AT LAW
ALCANTAR & KAHL, LLP
33 NEW MONTGOMERY STREET,

SAN FRANCISCO, CA 94105
FOR: ENERGY PRODUCERS & USERS

(EPUC)

SARA STECK MYERS
ATTORNEY
CEERT
122 28TH AVENUE
SAN FRANCISCO, CA 94121
FOR: CENTER FOR ENERGY

RENEWABLE TECHNOLOGIES

STEVE ZELTZER
UNITED PUBLIC WORKERS FOR

PO BOX 720027
SAN FRANCISCO, CA 94172
FOR: UNITED PUBLIC WORKERS

LAURENCE G. CHASET
COUNSEL
KEYES FOX & WIEDMAN LLP
436 14TH STREET, STE. 1305
OAKLAND, CA 94612
FOR: FRIENDS OF THE EARTH

MICHAEL DORSI
COUNSEL
DISTRIBUTED ENERGY CONSUMER

516 WHITEWOOD DRIVE
SAN RAFAEL, CA 94903
FOR: DISTRIBUTED ENERGY

ADVOCATES

DAVID KATES
DAVID MARK & COMPANY
3510 UNOCAL PLACE, SUITE 200
SANTA ROSA, CA 95403
FOR: THE NEVADA HYDRO COMPANY

Information Only

ERIC SELMON
JEMZAR CORP.
EMAIL ONLY
EMAIL ONLY, IS 000 000
ISRAEL

ABIGAIL SEWELL
LA TIMES
EMAIL ONLY
EMAIL ONLY, CA 00000

ANDREW BROWN
ELLISON SCHNEIDER & HARRIS LLP
COMPANY
EMAIL ONLY
EMAIL ONLY, CA 00000

CLAY FABER
SAN DIEGO GAS & ELECTRIC
EMAIL ONLY
EMAIL ONLY, CA 00000

DAVID A. PEPPER
EMAIL ONLY
EMAIL ONLY, CA 00000
CUSTOMER PROGRAM

DAVID B. PECK
CPUC - DRA
ELECTRICITY PRICING &
EMAIL ONLY
EMAIL ONLY, CA 00000

DAVID WEISMAN
ALLIANCE FOR NUCLEAR RESPONSIBILITY
EMAIL ONLY
EMAIL ONLY, CA 00000

DYANA MARIE DELFIN-POLK
CLEAN COALITION
EMAIL ONLY
EMAIL ONLY, CA 00000

GREGORY S.G. KLATT
DOUGLASS & LIDDELL
EMAIL ONLY
EMAIL ONLY, CA 00000

JEAN MERRIGAN
WOMEN'S ENERGY MATTERS
EMAIL ONLY
EMAIL ONLY, CA 00000

JOHN W. LESLIE
ATTORNEY
MCKENNA LONG & ALDRIDGE LLP
EMAIL ONLY
EMAIL ONLY, CA 00000

KATY ROSENBERG
ALCANTAR & KAHL
EMAIL ONLY
EMAIL ONLY, CA 00000

LAUREN DUKE
DEUTSCHE BANK SECURITIES INC.
EMAIL ONLY
EMAIL ONLY, NY 00000

MATT RENNER
EXECUTIVE DIRECTOR
WORLD BUSINESS ACADEMY
EMAIL ONLY
EMAIL ONLY, CA 00000

MIKE CADE
ALCANTAR & KAHL, LLP
EMAIL ONLY
EMAIL ONLY, OR 00000

PAUL PATTERSON
GLENROCK ASSOCIATES LLC
EMAIL ONLY
EMAIL ONLY, NY 00000

RACHEL GOLD
POLICY DIR
CONSCIOUS VENTURES GROUP
EMAIL ONLY
EMAIL ONLY, CA 00000

RINALDO S. BRUTOCO
PRESIDENT
WORLD BUSINESS ACADEMY
EMAIL ONLY
EMAIL ONLY, CA 00000

ROSS BOOMER
INVESTOR RELATIONS
EDISON INTERNATIONAL
EMAIL ONLY
EMAIL ONLY, CA 00000

STEPHANIE WANG
DIRECTOR
CLEAN COALITION
EMAIL ONLY
EMAIL ONLY, CA 00000

SUJATA PAGEDAR
ENERGY
PACIFIC GAS AND ELECTRIC COMPANY
EMAIL ONLY
EMAIL ONLY, CA 00000

MRW & ASSOCIATES, LLC
EMAIL ONLY
EMAIL ONLY, CA 00000

ERIN GRIZARD
SENIOR MANAGER-REG.& GOV'T. AFFAIRS
BLOOMENERGY
EMAIL ONLY
EMAIL ONLY, CA 00000-9162

MATT FALLON
TALON CAPITAL
1001 FARMINGTON AVENUE
WEST HARTFORD, CT 06107

KEVIN FALLON
SIR CAPITAL MANAGEMENT
620 EIGHTH AVENUE, 22ND FL.
NEW YORK, NY 10018

GREGG ORRILL
DIRECTOR, EQUITY RESEARCH
BARCLAYS CAPITAL
745 7TH AVENUE
NEW YORK, NY 10019

JULIEN DUMOULIN-SMITH
DIRECTOR
UBS INVESTMENT RESEARCH
1285 AVENUE OF THE AMERICAS
NEW YORK, NY 10019

BRENDAN NAEVE
LEVIN CAPITAL STRATEGIES
595 MADISON AVENUE, 17TH FLR
NEW YORK, NY 10022

NEIL STEIN
LEVIN CAPITAL STRATEGIES
595 MADISON AVENUE
STE. 1030
NEW YORK, NY 10022

MATTHEW LIGAS
TEILINGER CAPITAL
1270 AVENUE OF THE AMERICAS,
NEW YORK, NY 10023

JOHN APGAR, CFA
BANK OF AMERICA MERRILL LYNCH RESEARCH
ONE BRYANT PARK, 15TH FL.
NEW YORK, NY 10036

SCOTT SENCHAK
DECADE CAPITAL
666 - 5TH AVENUE
NEW YORK, NY 10103

NAAZ KHUMAWALA
UTILITIES & POWER RESEARCH
MGR.
WOLFE TRAHAN
420 LEXINGTON, SUITE 648
NEW YORK, NY 10170

DAMON MOGLEN
CLIMATE AND ENERGY PROJECT

FRIENDS OF THE EARTH
1100 15TH STREET NW, 11TH FL.
WASHINGTON, DC 20005

KENDRA ULRICH
NUCLEAR CAMPAIGNER
FRIENDS OF THE EARTH
1100 15TH STREET, NW, 11TH FL.
WASHINGTON, DC 20005

S. DAVID FREEMAN
C/O FRIENDS OF THE EARTH
1100 15TH STREET NW, 11TH FL.
WASHINGTON, DC 20005

KHOJASTEH DAVOODI
NAVY ACQ-UTILITY RATES & STUDIES OFFICE
DEPT OF THE NAVY, FACILITIES ENGINEERING
POWER
1322 PATTERSON AVE., SE - BLDG NO. 33
WASHINGTON NAVY YARD, DC 20374-5018

PRISCILA E. CASTILLO
DEPUTY CITY ATTORNEY
LOS ANGELES DEPT. OF WATER &

111 N. HOPE STREET, RM. 340
LOS ANGELES, CA 90012

ROBERT L. PETTINATO
LOS ANGELES DEPT. OF WATER & POWER
POWER
111 NORTH HOPE STREET RM 1151
1150
LOS ANGELES, CA 90012

RODNEY A. LUCK
LOS ANGELES DEPT. OF WATER &

111 NORTH HOPE STREET, ROOM

LOS ANGELES, CA 90012

BRIAN HEMBACHER
SUPERVISING DEPUTY ATTORNEY GENERAL
CALIFORNIA DEPARTMENT OF JUSTICE
SUITE 425E
300 S. SPRING STREET
LOS ANGELES, CA 90013

BETTE SMITH-MILNE
FIRST-CHOICE DISTRIBUTORS
11835 W. OLYMPIC BOULEVARD,

LOS ANGELES, CA 90064

EMILY VIGLIETTA
ATTORNEY
MUNGER TOLLES & OLSON
355 SOUTH GRAND AVE., 35TH FLR.
FL.
LOS ANGELES, CA 90071

HENRY WEISSMANN
ATTORNEY AT LAW
MUNGER, TOLLES & OLSON LLP
355 SOUTH GRAND AVE., 35TH

LOS ANGELES, CA 90071
FOR: SCE

ROB HOWARD
UWUA LOCAL 246
COMPANY
10355 LOS ALAMITOS BLVD.
800
LOS ALAMITOS, CA 90720

CASE ADMINISTRATION
SOUTHERN CALIFORNIA EDISON

2244 WALNUT GROVE AVE./PO BOX

ROSEMEAD, CA 91770

MATTHEW DWYER

PAUL HUNT

ATTORNEY
COMPANY
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVE.
ROSEMEAD, CA 91770

SOUTHERN CALIFORNIA EDISON
PO BOX 800
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA 91770

RUSSELL A. ARCHER
ATTORNEY
SOUTHERN CALIFORNIA EDISON COMPANY
COMPANY
2244 WALNUT GROVE AVE. / PO BOX 800
800
ROSEMEAD, CA 91770

RUSSELL WORDEN
DIRECTOR
SOUTHERN CALIFORNIA EDISON
2244 WALNUT GROVE AVE./PO BOX
ROSEMEAD, CA 91770

CARL WOOD
AFL-CIO, NATL REGULATORY AFFAIRS DIR.
AMERICA LOC 246
UTILITY WORKERS UNION OF AMERICA
2021 S. NEVADA ST
OCEANSIDE, CA 92054

DANIEL DOMINGUEZ
UTILITY WORKERS UNION OF
6125 LAS TUNAS DRIVE
OCEANSIDE, CA 92057

MICHAEL J. AGUIRRE, ESQ.
ATTORNEY
AGUIRRE MORRIS & SEVERSON LLP
SOLUTIONS LLC
444 WEST C STREET, SUITE 210
SAN DIEGO, CA 92101
FOR: RUTH HENRICKS

GREG BASS
DIRECTOR
NOBLE AMERICAS ENERGY
401 WEST A STREET, STE. 500
SAN DIEGO, CA 92101-3017

STACY VAN GOOR
SAN DIEGO GAS AND ELECTRIC
101 ASH ST. HQ12
SAN DIEGO, CA 92101-3017

DONALD C. LIDDELL
COUNSEL
DOUGLASS & LIDDELL
2928 2ND AVENUE
SAN DIEGO, CA 92103

MORGAN LEE
U-T SAN DIEGO
350 CAMINO DE LA REINA
SAN DIEGO, CA 92108

JANAR WASITO
MAGIS CAPITAL MANAGEMENT LLC
1703 LA PLAYA AVE., UNIT C
SAN DIEGO, CA 92109

SARAH TOMEK
SR. ADVISOR, REGULATORY AFFAIRS WEST
CO.
CAPITAL POWER CORPORATION
CP31-E
9255 TOWNE CENTRE DRIVE, STE. 900
SAN DIEGO, CA 92121

CENTRAL FILES
SAN DIEGO GAS AND ELECTRIC
8330 CENTURY PARK COURT,
SAN DIEGO, CA 92123

WENDY KEILANI
REGULATORY CASE MGR.

JERY BROWN
DIRECTOR-SAFE ENERGY PROJECT

SAN DIEGO GAS & ELECTRIC COMPANY
8330 CENTURY PARK COURT, CP32D
SAN DIEGO, CA 92123

WORLD BUSINESS ACADEMY
308 EAST CABRILLO STREET
SANTA BARBARA, CA 93101

ROCHELLE BECKER
EXECUTIVE DIRECTOR
ALLIANCE FOR NUCLEAR RESPONSIBILITY
PO BOX 1328
SAN LUIS OBISPO, CA 93406

RON DICKERSON
CALIFORNIA CONSUMERS ALLIANCE
PO BOX 3751
CLOVIS, CA 93613

BEN DAVIS, JR.
CALIFORNIA NUCLEAR INITIATIVE
PO BOX 3844
COALITION
SANTA CRUZ, CA 94000
200

AARON LEWIS
COUNSEL
NATIONAL ASIAN AMERICAN
15 SOUTHGATE AVENUE, SUITE
DALY CITY, CA 94015

DONALD H. KORN
PRINCIPAL
CARDOZO, PC
DHK ASSOCIATES
355 N SAN ANTONIO ROAD
94080
LOS ALTOS, CA 94022

JAMIE MAULDIN
ADAMS BROADWELL JOSEPH &
601 GATEWAY BLVD., STE. 1000
SOUTH SAN FRANCISCO, CA

DON EICHELBERGER
ABALONE ALLIANCE SEC
2940-16TH STREET, NO. 310
1744
SAN FRANCISCO, CA 94103

NORMAN J. FURUTA
FEDERAL EXECUTIVE AGENCIES
1455 MARKET STREET, SUITE
SAN FRANCISCO, CA 94103-1399

ROBERT FINKELSTEIN
GENERAL COUNSEL
COUNCIL
THE UTILITY REFORM NETWORK
115 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94104

KRISTIN EBERHARD
NATURAL RESOURCES DEFENSE
111 SUTTER ST., 20TH FLOOR
SAN FRANCISCO, CA 94104-4540

JANET LIU
CASE COORDINATOR
PACIFIC GAS AND ELECTRIC COMPANY
STE. 1850
77 BEALE STREET, MC B9A
SAN FRANCISCO, CA 94105
USERS

NORA E. SHERIFF
ALCANTAR & KAHL LLP
33 NEW MONTGOMERY STREET,
SAN FRANCISCO, CA 94105
FOR: ENERGY PRODUCERS AND
COALITION (EPUC)

WILLIAM V. MANHEIM
ATTORNEY AT LAW

PAUL KANGAS
ONE

PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET RM. 3025-B30A / BOX 7442
SAN FRANCISCO, CA 94105

435 BRYANT
SAN FRANCISCO, CA 94107

STEVEN MOSS
SAN FRANCISCO COMMUNITY POWER
PITTMAN LLP
2325 THIRD STREET, STE. 344
FL.
SAN FRANCISCO, CA 94107

MICHAEL HINDUS
PILLSBURY WINTHROP SHAW
FOUR EMBARCADERO CENTER, 22ND
SAN FRANCISCO, CA 94111

PETER RICHMOND
PILLSBURY WINTHROP SHAW PITTMAN LLP
FOUR EMBARCADERO CENTER, 22ND FLOOR
2000
SAN FRANCISCO, CA 94111

JOHN M. EASTLY
LATHAM & WATKINS LLP
505 MONTGOMERY STREET, SUITE
SAN FRANCISCO, CA 94111-6538

HILARY CORRIGAN
CALIFORNIA ENERGY MARKETS
425 DIVISADERO ST. SUITE 303
SAN FRANCISCO, CA 94117-2242

CALIFORNIA ENERGY MARKETS
425 DIVISADERO ST STE 303
SAN FRANCISCO, CA 94117-2242

SUSAN DURBIN
DEP. ATTY. GEN.-OFF. OF THE ATTY. GEN.
CALIFORNIA STATE DEPARTMENT OF JUSTICE
1300 I STREET, PO BOX 944255
SACRAMENTO, CA 94244-2550

PAUL SEGER
4210 SEQUOIA DRIVE
OAKLEY, CA 94561

SEAN BEATTY
DIRECTOR - WEST REGULATORY AFFAIRS
NRG WEST
PO BOX 192
PITTSBURG, CA 94565

CATHERINE E. YAP
BARKOVICH & YAP, INC.
PO BOX 11031
OAKLAND, CA 94611

THADEUS B. CULLEY
KEYES, FOX & WIEDMAN LLP
436 14TH STREET, STE. 1305
OAKLAND, CA 94612

TIM LINDL
KEYES FOX & WIEDMAN LLP
436 14TH STREET, STE. 1305
OAKLAND, CA 94612

DAVID MARCUS
PO BOX 1287
BERKELEY, CA 94701

LAURA WISLAND
SENIOR ENERGY ANALYST
UNION OF CONCERNED SCIENTISTS
2397 SHATTUCK AVE., STE. 203
BERKELEY, CA 94704

CARLOS LAMAS-BABBINI
CEN-CA PROGRAM MGR.
COMVERGE, INC.
58 MT. TALLAC CT.

PHILLIP MULLER
PRESIDENT
SCD ENERGY SOLUTIONS
436 NOVA ALBION WAY

SAN RAFAEL, CA 94903

MARY BETH BRANGAN
CO-DIRECTOR
THE ECOLOGICAL OPTIONS NETWORK
PO BOX 1047
BOLINAS, CA 94924
FOR: EON

L. JAN REID
COAST ECONOMIC CONSULTING
3185 GROSS ROAD
SANTA CRUZ, CA 95062

CAROLYN M. KEHREIN
ENERGY MGT SRVCS
ENERGY USERS FORUM
2602 CELEBRATION WAY
WOODLAND, CA 95776

SCOTT BLAISING
BRAUN BLAISING MCLAUGHLIN & SMITH P.C.
915 L STREET, STE. 1270
COMMERCE
SACRAMENTO, CA 95814

ASSEMBLY
COMMERCE

RONALD LIEBERT
ATTORNEY AT LAW
L.L.P.
ELLISON SCHNEIDER & HARRIS LLP
400
2600 CAPITOL AVENUE, STE. 400
SACRAMENTO, CA 95816

JEDEDIAH J. GIBSON
ATTORNEY AT LAW
ELLISON SCHNEIDER & HARRIS LLP
FEDERATION
2600 CAPITOL AVENUE, SUITE 400
SACRAMENTO, CA 95816-5905

State Service

LILY MCKENNA

SAN RAFAEL, CA 94903

HENRY W. PIELAGE, P.E.
RATEPAYER ADVOCATE
2860 GLEN CANYON ROAD
SANTA CRUZ, CA 95060

MARTIN HOMECH
PO BOX 4471
DAVIS, CA 95617

KEVIN WOODRUFF
WOODRUFF EXPERT SERVICES
1100 K STREET, SUITE 204
SACRAMENTO, CA 95814

SUE KATELEY
CHIEF CONSULTANT
ASSEMBLY COMM. ON UTILITIES &
STATE CAPITOL, ROOM 5136
SACRAMENTO, CA 95814
FOR: CALIFORNIA STATE

COMMITTEE ON UTILITIES AND

SAMANTHA G. POTTENGER
ELLISON, SCHNEIDER AND HARRIS
2600 CAPITOL AVENUE, SUITE
SACRAMENTO, CA 95816

KAREN NORENE MILLS
ASSOC. COUNSEL
CALIFORNIA FARM BUREAU
2300 RIVER PLAZA DRIVE
SACRAMENTO, CA 95833

MICHAEL COLVIN

CPUC
EMAIL ONLY
EMAIL ONLY, CA 00000

ADVISOR - ENERGY
CPUC
EMAIL ONLY
EMAIL ONLY, CA 00000

ANDREW KOTCH
CALIF PUBLIC UTILITIES COMMISSION
COMMISSION
EXECUTIVE DIVISION
ROOM 5301
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

BRIAN STEVENS
CALIF PUBLIC UTILITIES
EXECUTIVE DIVISION
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

CAROL A. BROWN
CALIF PUBLIC UTILITIES COMMISSION
COMMISSION
EXECUTIVE DIVISION
BRANCH
ROOM 5300
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

CHLOE LUKINS
CALIF PUBLIC UTILITIES
ELECTRICITY PLANNING & POLICY
ROOM 4102
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

CLAIRE EUSTACE
CALIF PUBLIC UTILITIES COMMISSION
COMMISSION
ELECTRICITY PLANNING & POLICY BRANCH
ROOM 4203
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

COLETTE KERSTEN
CALIF PUBLIC UTILITIES
EXECUTIVE DIVISION
ROOM 5101
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

DAMON A. FRANZ
CALIF PUBLIC UTILITIES COMMISSION
COMMISSION
PROCUREMENT STRATEGY AND OVERSIGHT BRANC
LAW JUDGES
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

DAVID M. GAMSON
CALIF PUBLIC UTILITIES
DIVISION OF ADMINISTRATIVE
ROOM 5019
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

DIANA L. LEE
CALIF PUBLIC UTILITIES COMMISSION
COMMISSION
LEGAL DIVISION
NATURAL GAS
ROOM 4107
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

DONALD J. LAFRENZ
CALIF PUBLIC UTILITIES
MARKET STRUCTURE, COSTS AND
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

EDWARD F. RANDOLPH
CALIF PUBLIC UTILITIES COMMISSION
COMMISSION

ERIC GREENE
CALIF PUBLIC UTILITIES

ENERGY DIVISION
NATURAL GAS
ROOM 4004
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

JOHN S. WONG
CALIF PUBLIC UTILITIES COMMISSION
COMMISSION
DIVISION OF ADMINISTRATIVE LAW JUDGES
ROOM 5106
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

KEVIN R. DUDNEY
CALIF PUBLIC UTILITIES COMMISSION
COMMISSION
DIVISION OF ADMINISTRATIVE LAW JUDGES
NATURAL GAS
ROOM 5006
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

MELANIE DARLING
CALIF PUBLIC UTILITIES COMMISSION
COMMISSION
DIVISION OF ADMINISTRATIVE LAW JUDGES
BRANCH
ROOM 5041
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

MICHELE KITO
CALIF PUBLIC UTILITIES COMMISSION
COMMISSION
DEMAND SIDE ANALYSIS BRANCH
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

NIKA ROGERS
CALIF PUBLIC UTILITIES COMMISSION
COMMISSION
ELECTRICITY PLANNING & POLICY BRANCH
ROOM 4101
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

ROBERT M. POCTA

MARKET STRUCTURE, COSTS AND
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

JULIE A. FITCH
CALIF PUBLIC UTILITIES
EXECUTIVE DIVISION
ROOM 5214
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

MARC MONBOUQUETTE
CALIF PUBLIC UTILITIES
MARKET STRUCTURE, COSTS AND
ROOM 4006
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

MICHAEL YEO
CALIF PUBLIC UTILITIES
ELECTRICITY PLANNING & POLICY
ROOM 4103
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
FOR: DRA

MITCHELL SHAPSON
CALIF PUBLIC UTILITIES
LEGAL DIVISION
ROOM 4107
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

ROBERT HAGA
CALIF PUBLIC UTILITIES
LEGAL DIVISION
ROOM 5137
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

SCOTT LOGAN

CALIF PUBLIC UTILITIES COMMISSION
COMMISSION
ENERGY COST OF SERVICE & NATURAL GAS BRA
NATURAL GAS BRA
ROOM 4205
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

CALIF PUBLIC UTILITIES
ENERGY COST OF SERVICE &
ROOM 4108
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

SEAN WILSON
CALIF PUBLIC UTILITIES COMMISSION
COMMISSION
DIVISION OF ADMINISTRATIVE LAW JUDGES
ROOM 5022
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

SEPIDEH KHOSROWJAH
CALIF PUBLIC UTILITIES
EXECUTIVE DIVISION
ROOM 5201
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

TERRIE D. PROSPER
CALIF PUBLIC UTILITIES COMMISSION
COMMISSION
EXECUTIVE DIVISION
NATURAL GAS BRA
ROOM 5301
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

TRUMAN L. BURNS
CALIF PUBLIC UTILITIES
ENERGY COST OF SERVICE &
ROOM 4205
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
FOR: DRA

WILLIAM DIETRICH
SR. ANALYST
COMMISSION
CPUC
INFRASTRUCTURE PLANNING BRANCH
ROOM 4-A
S. F., CA 94102-3214

DITAS KATAGUE
CALIF PUBLIC UTILITIES
EXECUTIVE DIVISION
770 L Street, Suite 1250
Sacramento, CA 95814

JOAN WALTER, AICP
CALIFORNIA ENERGY COMMISSION
1516 9TH ST.
SACRAMENTO, CA 95814

MARC S. PRYOR
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814



California Public Utilities Commission

[CPUC Home](#)

CALIFORNIA PUBLIC UTILITIES COMMISSION Service Lists

Proceeding: A1304001 - EDISON - FOR A COMMI
Filer: Southern California Edison Company
List Name: LIST
Last changed: June 28, 2013

Parties

DANIEL W. DOUGLASS
ATTORNEY
DOUGLASS & LIDDELL
COMPANY
21700 OXNARD ST., STE. 1030
BOX 800
WOODLAND HILLS, CA 91367
FOR: WESTERN POWER TRADING FORUM
EDISON COMPANY

RUSSELL A. ARCHER
ATTORNEY
SOUTHERN CALIFORNIA EDISON
2244 WALNUT GROVE AVE. / PO
ROSEMEAD, CA 91770
FOR: SOUTHERN CALIFORNIA

ROBERT HAGA
CALIF PUBLIC UTILITIES COMMISSION
LEGAL DIVISION
ROOM 5137
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
FOR: DRA

BARBARA GEORGE
WOMEN'S ENERGY MATTERS
PO BOX 548
FAIRFAX, CA 94978-0548
FOR: WOMEN'S ENERGY MATTERS

Information Only

ANDREW BROWN
ELLISON SCHNEIDER & HARRIS LLP
EMAIL ONLY
EMAIL ONLY, CA 00000

BRIAN S. BIERING
ELLISON SCHNEIDER & HARRIS
EMAIL ONLY
EMAIL ONLY, CA 00000

MRW & ASSOCIATES LLC
EMAIL ONLY
COMPANY
EMAIL ONLY, CA 00000

CASE ADMINISTRATION
SOUTHERN CALIFORNIA EDISON
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA 91770

SHIRLEY AMRANY
REGULATORY CASE ADMIN.
COMPANY
SAN DIEGO GAS & ELECTRIC COMPANY
8330 CENTURY PARK COURT, CP32D
BOX 7442
SAN DIEGO, CA 92123

CHARLES R. MIDDLEKAUFF
PACIFIC GAS AND ELECTRIC

LAW DEPT.
77 BEALE STREET, B30A / PO

SAN FRANCISCO, CA 94105

THOMAS A. JARMAN
PACIFIC GAS AND ELECTRIC
77 BEALE STREET; MC B9A
SAN FRANCISCO, CA 94105

HILLARY CORRIGAN
CALIFORNIA ENERGY MARKETS
425 DIVISADERO ST. STE 303
SAN FRANCISCO, CA 94117-2242

State Service

CHRIS UNGSON
CPUC
COMMISSION
EMAIL ONLY
EMAIL ONLY, CA 00000

JORDAN PARRILLO
CALIFORNIA PUBLIC UTILITIES

EMAIL ONLY
EMAIL ONLY, CA 00000

DONALD J. LAFRENZ
CALIF PUBLIC UTILITIES COMMISSION
COMMISSION
MARKET STRUCTURE, COSTS AND NATURAL GAS
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

LUISA ELKINS
CALIF PUBLIC UTILITIES

LEGAL DIVISION
ROOM 4107
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

MICHAEL YEO
CALIF PUBLIC UTILITIES COMMISSION
COMMISSION
ELECTRICITY PLANNING & POLICY BRANCH
ROOM 4103
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

MICHELE KITO
CALIF PUBLIC UTILITIES

DEMAND SIDE ANALYSIS BRANCH
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

SEAN WILSON
CALIF PUBLIC UTILITIES COMMISSION
DIVISION OF ADMINISTRATIVE LAW JUDGES
ROOM 5022
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214