

| Ex | | Description |
|----|-------------|---|
| 1 | 15 Dec 2005 | Decision 05-12-2005 “Specifically SCE proposed to file an application to establish the reasonableness of the SGRP construction costs ... six months after Songs returns to commercial operations.” (pp. 48-49) |
| 2 | 13 Apr 11 | Letter Re: Recovery of Cost Application.” SCE “hereby informs the Commission of its intent to file a single application, at the end of the second quarter of 2012.” |
| 3 | 30 Nov 12 | SCE Senior VP of Regulatory Affairs Lee Starck and SCE Director of Regulatory Affairs Mike Hoover met at 1:15 pm with Sepideh Khosrowjah, Advisor to Florio urging “Issues to be considered in the OII Phased Proceedings “Phase C: *Whether (and if so, when) rates should be adjusted to remove some or all of SONGS costs from rates.” |
| 4 | 3 Dec 12 | SCE files pause and delay plan with CPUC |
| 5 | 4 Dec 12 | ALJ Darling called SCE Russell G. Worden, Director, SONGS Strategic Review to discuss SCE’s current work with MHI, “timing of the RSG capital cost filing pursuant to the Commission’s decision approving new steam generators” and access to SCE and Nuclear Regulatory Commission documents. |
| 6 | 10 Dec 12 | ALJ Darling Ruling “The Commission intends to approach this inquiry in stages .. .” The “Commission will initially gather information in the form of testimony from both SCE and SDG&E about the actual expenses each incurred in 2012 related to SONGS.” |
| 7 | 21 Feb 13 | ALJ Darling Ruling “However, the request to include the SGRP cost reasonableness review in Phase 1 of the OII should be denied because it is premature and would disrupt the orderly accumulation of evidence of SCE’s actions and expenses at SONGS as set forth in the Scoping Memo.” |
| 8 | 1 Dec 13 | CPUC Investigator proposes to find out “What error(s) led to the tube failure(s) or At what stage were those errors made? Who made those errors? What might have been done, and by whom, and at what stage, to have averted those errors? What arrangements in place elsewhere didn’t work adequately for the SONGS RSGs?” |
| 9 | 20 Nov 14 | CPUS Ends Investigation. “primary purpose of this settlement is to avoid the costs, time and burden on all parties to get to the |

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| | | cause of the damage and reasonableness of consequential costs.” (pp. 31-32) Here “there are fingers pointed between SCE and Mitsubishi.” (80-81) |
| | | |

EXHIBIT 1

COM/MP1/RSK/gir

Mailed 12/19/05

Decision 05-12-040 December 15, 2005

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Southern California Edison Company (U 338-E) for Authorization: (1) to Replace San Onofre Nuclear Generating Station Unit Nos. 2 & 3 (SONGS 2 & 3) Steam Generators; (2) Establish Ratemaking for Cost Recovery; and (3) Address Other Related Steam Generator Replacement Issues.

Application 04-02-026
(Filed February 27, 2004)

Carol A. Schmid-Frazee, John W. Spiegel, Charles D. Siegal, and Martin D. Bern, Attorneys at Law, for Southern California Edison Company, applicant.

Paul Angelopulo, Attorney at Law, and Mark R. Loy, for the Office of Ratepayer Advocates; Matthew Freedman, Attorney at Law, for The Utility Reform Network; James Weil, for the Aglet Consumer Alliance; Alcantar & Kahl, LLP, by Michael Alcantar, Attorney at Law, for the Cogeneration Association of California; Ellison, Schneider & Harris, LLP, by Andrew B. Brown, Attorney at Law, for the Independent Energy Producers Association; Daniel W. Douglass, Attorney at Law, for the Western Power Trading Forum; Adams, Broadwell, Joseph & Cardozo, by Marc Joseph, Attorney at Law, for the Coalition of California Utility Employees; James F. Walsh, Attorney at Law, Amy Peters and Wendy Keilani, for San Diego Gas and Electric Company; Jennifer K. Post, Attorney at Law, for Pacific Gas and Electric Company; James Ross, for Chevron Texaco McKittrick Cogeneration Company; Alcantar & Kahl, LLP, by Nora Sheriff, Attorney at Law, for the Energy Producers and Users Coalition; Karen Tarranova, Attorney at Law, for THUMS Long Beach Company; Brian T. Cragg and Lucina Lea Moses, Attorneys at Law, for City of Anaheim; Ronald Liebert, Attorney at Law, for California Farm Bureau Federation; Sabrina Venskus, Attorney at Law, for California Earth Corps; interested parties.

the other owners agreed with SCE's actions regarding CE. This in turn supports the reasonableness of SCE's actions regarding CE. As a result, we find that SCE acted reasonably with regards to CE, including the 1987 settlement, the 1993 settlement, and the 1996 suit.

Notwithstanding the above, if we were to assume that SCE should have sued CE, we would have to assume that the result, if any, would have been a settlement, because the record does not indicate that any of the suits against CE were resolved other than by a settlement. Of the settlements, the record only indicates the results of two: Consumers Power and APS. The Consumers Power suit concerned damage as a result of the use of phosphate in the water treatment. This damage mechanism was not present at SONGS. The APS suit concerned a design defect in the steam generators that was unrelated to Alloy 600, and is not present at SONGS. Therefore, the results of these settlements provide no basis for determining the value of a settlement had one been reached. The results of all other settlements are confidential. As a result, there is no basis in the record for determining what the value of a settlement would have been if SCE had sued CE and reached a settlement. For all of the above reasons, we will not adopt TURN's recommendation.

IX. Reasonableness Review—SGRP

In this application, SCE is requesting that the Commission pre-approve the SGRP. SCE intends this to mean that, if granted, the Commission would not be able to disallow construction costs or their recovery in rates on the grounds that SCE's decision to implement the SGRP was unreasonable. SCE represents that it will submit the incurred costs for a reasonableness review, and that the Commission would not be relinquishing its authority to review the reasonableness of recorded costs and construction practices. Specifically, SCE

proposes to file an application to establish the reasonableness of the SGRP construction costs, excluding the costs of removal and disposal of the original steam generators, six months after SONGS returns to commercial operations. In addition, SCE proposes to file an application to establish the reasonableness of the costs of removal and disposal of the original steam generators six months after the last removal and disposal costs are incurred.

TURN states that it would be willing to participate in a reasonableness review when the SGRP is complete. However, it would prefer that the Commission adopt up-front and transparent standards for the review.

Aglet states that SCE should not be allowed to recover any SGRP costs in rates without a reasonableness review.

ORA supports a mandatory reasonableness review of SGRP costs.

The effect of SCE's request for pre-approval of the SGRP is that the Commission would not be able to disallow construction costs or their recovery in rates on the grounds that SCE's decision to implement the SGRP was unreasonable. Instead of pre-approval, we accept SCE's SGRP estimate of \$680 million as a reasonable estimate of the SGRP cost. If the SGRP cost exceeds \$680 million, or the Commission later finds that it has reason to believe the costs may be unreasonable regardless of the amount, the entire SGRP cost shall be subject to a reasonableness review.

Nonetheless, we accept that there is uncertainty in cost estimates and that it is appropriate to consider costs in excess of the estimated reasonable total of \$680 million. As in Decision 05-11-026, we include an additional \$102 million to the estimate to reach a maximum cost of \$782 million. SCE will not be allowed to recover SGRP costs in excess of this amount.

April 13, 2011

Paul Clanon
Executive Director
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: San Onofre Nuclear Generating Station (SONGS), Steam
Generator Replacement Project (SGRP) – Recovery of
Costs Application

Dear Mr. Clanon:

Southern California Edison Company (SCE) hereby informs the Commission of its current intent to file a single application, **at the end of the second quarter of 2012**, that seeks authority: 1) to permanently include in rates the capital costs incurred in the procurement and installation of replacement steam generators at SONGS; and, 2) to permanently include in rates the cost of removal and disposal of the original steam generators.

In Decision (D.) 05-12-040, the Commission ordered the following:

After completion of the SGRP, SCE shall be required to file an application for inclusion of the SGRP costs permanently in rates, regardless of whether costs exceed \$680 million.¹ If a reasonableness review of such costs is performed, it shall be done in connection with the application. In the event the removal and disposal of the original steam generators is delayed significantly beyond the commercial operation of both units, it may be addressed in a subsequent application.²

The replacement of the steam generators in Units 2 and 3 at SONGS has now been completed. The units returned to commercial operation in April 11, 2010 and February 18, 2011, respectively, following the completion of other refueling outage activities. SCE is currently negotiating resolution of certain vendor and workforce issues concerning the installation of the

¹ On October 8, 2010, SCE filed a Petition for Modification (Petition) to reduce the SGRP cost cap from \$680 million to \$670.8 million. SCE's Petition is still pending.

² See D.05-12-040, Ordering Paragraph No. 11, p. 110. The Commission noted in D.05-12-040 that SCE's proposal was to file two separate applications, the first to establish and permanently include in rates the SGRP construction costs six months after SONGS returned to commercial operation and the second to cover the cost of removal and disposal of the original steam generators six months after the last removal and disposal costs are incurred. *Id.*, pp. 48-49. Two separate applications for cost reasonableness are not required per the Commission's final order cited above, nor is it in the best interests of administrative and judicial economy.

steam generators, which SCE anticipates will be resolved by the first quarter of 2012. The resolution of those issues is required before SCE can calculate the final cost of the procurement and installation of the steam generators that it would seek to include in rates by its application. In addition, removal and disposal of the original steam generators for Units 2 and 3 is not scheduled to occur until late November 2011, with the possibility that weather conditions may result in a delay of the final transport of contaminated materials until the spring of 2012. Therefore, in the interest of administrative and judicial economy, SCE currently intends to file a single application in the second quarter of 2012 for authority to permanently include in rates the costs incurred for the SONGS steam generator replacement project, and the cost of removal and disposal of the original steam generators.

Very truly yours,

/s/ AKBAR JAZAYERI
Akbar Jazayeri

Cc: President Michael Peevey
Commissioner Timothy Alan Simon
Commissioner Mike Florio
Commissioner Catherine Sandoval
Commissioner Mark Ferron
Director Julie Fitch, Energy Division

EXHIBIT 3



BEFORE THE PUBLIC UTILITIES COMMISSION OF THE **FILED**

STATE OF CALIFORNIA

12-06-12
04:59 PM

Order Instituting Investigation on the)
Commission's Own Motion into the Rates,) Investigation 12-10-013
Operations, Practices, Services and Facilities of) (Issued November 1, 2012)
Southern California Edison Company and San)
Diego Gas and Electric Company Associated)
with the San Onofre Nuclear Generating Stations)
Units 2 and 3.)

SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E)
LATE-FILED NOTICE OF EX PARTE COMMUNICATION

DOUGLAS K. PORTER
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Dated: **December 06, 2012**

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

| | | |
|---|---|---------------------------|
| Order Instituting Investigation on the |) | |
| Commission's Own Motion into the Rates, |) | Investigation 12-10-013 |
| Operations, Practices, Services and Facilities of |) | (Issued November 1, 2012) |
| Southern California Edison Company and San |) | |
| Diego Gas and Electric Company Associated |) | |
| with the San Onofre Nuclear Generating Stations |) | |
| Units 2 and 3. |) | |

**SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E)
LATE-FILED NOTICE OF EX PARTE COMMUNICATION**

Southern California Edison (SCE) respectfully submits this late-filed Notice of Ex Parte Communication. At approximately 10 a.m. on November 30, 2012, SCE Senior Vice President of Regulatory Affairs Les Starck and SCE Director of Regulatory Affairs Mike Hoover met with Collette Kersten, Advisor to Commissioner Sandoval, in her office at the California Public Utilities Commission (CPUC). The meeting was initiated by SCE and lasted approximately 30 minutes. SCE discussed SCE's planned December 3, 2012 Response to the OII, as reflected in the attached handout (Exhibit A). At approximately 1:15 p.m. on November 30, 2012, SCE's Les Starck and Mike Hoover met with Sepideh Khosrowjah, Advisor to Commissioner Florio, in her office at the CPUC. The meeting was initiated by SCE and lasted approximately 30 minutes. SCE discussed SCE's planned December 3, 2012 Response to the OII, as reflected in the attached handout (Exhibit A).

Respectfully submitted,

DOUGLAS K. PORTER
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/s/ Russell Archer

By: Russell Archer

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December 06, 2012

Exhibit A

Summary of Response to OII Filing submitted 12/3/2012

Summary of Response to OII Filing submitted 12/3/2012

OII Framework - The framework for the OII is set forth in Section 455.5 of the Public Utilities Code. The statute directs the Commission to engage in a three-step process: (1) issue an order instituting an investigation, (2) set rates subject to refund, and (3) investigate whether to reduce rates, with such investigation culminating in a hearing consolidated with the utility's next GRC.

Rates are subject to refund, not immediate removal – Section 455.5 makes clear that, following the institution of an OII, the utility continues to collect rates associated with the affected facility, but does so subject to refund:

“The commission’s order [instituting investigation] shall require that rates associated with that facility *are subject to refund* from the date the order instituting the investigation was issued. The commission shall *consolidate the hearing on the investigation with the next general rate proceeding* instituted for the corporation.”

Rates are subject to refund from the date of the order, not earlier – Section 455.5 also provides “[t]he commission’s order shall require that rates associated with [the facility at issue] are subject to refund *from the date the order instituting the investigation was issued.*”

OII Schedule – The Commission’s ultimate decision should be informed by: (1) resolution of the responsibilities of the supplier of the steam generators (“MHI”), (2) SCE’s recovery from Nuclear Electric Insurance Limited (“NEIL”), SCE’s insurance carrier; and (3) the determination of the future operation of SONGS. SCE recommends 3 phases (A, B, & C) for the OII (below).

Issues to be considered in the OII Phased Proceedings –

Phase A: Retrospective review of outage

Phase B: Ratemaking

- Replacement power and nuclear fuel costs
- SONGS capital and O&M costs, including SGRP
- Availability of warranty coverage or insurance for costs related to the SONGS outage

Phase C: Future of SONGS Operations

- The cost-effectiveness of options for repairing or replacing the steam generators
- Related system reliability planning considerations
- Revenue requirement to support future operations
- Whether (and if so, when) rates should be adjusted to remove some or all of SONGS costs from rates

Hearings should be consolidated with 2015 GRC – Section 455.5 states that the Commission “shall consolidate the hearing on the investigation with the next general rate proceeding instituted for the [utility].” SCE’s next GRC will be for test year 2015, and per the Rate Case Plan, hearings on that case should be held in mid-2014. SCE agrees hearings for the issues set forth in the OII will be necessary and suggests conducting these hearings in GRC phase 3 thereby avoiding delay in the issuance of decisions for GRC phases 1 and 2.

EXHIBIT 4
BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



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12-03-12
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Order Instituting Investigation on the Commission's Own Motion into the Rates, Operations, Practices, Services and Facilities of Southern California Edison Company and San Diego Gas and Electric Company Associated with the San Onofre Nuclear Generating Station Units 2 and 3.

Investigation 12-10-013
(Issued November 1, 2012)

RESPONSE OF SOUTHERN CALIFORNIA EDISON COMPANY (U338-E)
TO ORDER INSTITUTING INVESTIGATION REGARDING
SAN ONOFRE NUCLEAR GENERATING STATION
UNITS 2 AND 3

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Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

Dated: December 3, 2012

A. 2015 General Rate Case, in Part

The OII does not specifically reference SCE's GRC Application for test year 2015. As noted above, SCE recommends that this OII be consolidated with and made Phase 3 of the 2015 GRC. More specifically, SCE proposes that in Phase 3-C of the OII, it would present testimony regarding the revenue requirement for SONGS, taking into consideration SCE's plans for SONGS future operations. The Commission's policy decision regarding future operations at SONGS will be inextricably intertwined with a determination of the SONGS revenue requirement for the 2015 GRC, and hence these matters should be consolidated in this OII. SCE recommends that the Commission's consideration of all other costs in the 2015 GRC should be separate from the OII and considered in the ordinary course as Phase 1 of the 2015 GRC.

B. SGRP Capital Review, in Full

D. 05-12-040 at *46, Ordering Paragraph 11, states:

After completion of the SGRP, SCE shall be required to file an application for inclusion of the SGRP costs permanently in rates, regardless of whether costs exceed \$680 million. If a reasonableness review of such costs is performed, it shall be done in connection with the application. In the event the removal and disposal of the original steam generators is delayed significantly beyond the commercial operation of both units, it may be addressed in a subsequent application.

SCE intends to file such an application in 2013. SCE recommends that the Commission consolidate this application with the OII. To the extent the Commission chooses to conduct a reasonableness review of the costs of the SGRP, SCE suggests that the Commission do so as part of Phase 3-A of the OII.

EXHIBIT 5



BEFORE THE PUBLIC UTILITIES COMMISSION OF THE **FILED**

STATE OF CALIFORNIA

12-07-12
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Order Instituting Investigation on the)
Commission's Own Motion into the Rates,)
Operations, Practices, Services and Facilities of)
Southern California Edison Company and San)
Diego Gas and Electric Company Associated)
with the San Onofre Nuclear Generating Station)
Units 2 and 3.)

Investigation 12-10-013
(Issued November 1, 2012)

**SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) NOTICE OF EX PARTE
COMMUNICATION**

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Dated: **December 07, 2012**

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

Order Instituting Investigation on the)
Commission's Own Motion into the Rates,)
Operations, Practices, Services and Facilities of)
Southern California Edison Company and San)
Diego Gas and Electric Company Associated)
with the San Onofre Nuclear Generating Station)
Units 2 and 3.)

Investigation 12-10-013
(Issued November 1, 2012)

**SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) NOTICE OF EX PARTE
COMMUNICATION**

Pursuant to Rule 8.3(c)(2) of the Rules of Practice and Procedure of the California Public Utilities Commission (Commission), Southern California Edison (SCE) respectfully submits this notice that an ex parte communication took place on Tuesday, December 4, 2012, between Russell G. Worden, Director, SONGS Strategic Review at Southern California Edison and Administrative Law Judge (ALJ) Melanie Darling. The communication was telephonic, initiated by ALJ Melanie Darling, and Mr. Worden returned her phone call at approximately 11:45 am, with the conversation lasting approximately 15 minutes.

The discussion addressed procedural issues for providing notice for planned public participation hearings for the above-captioned proceeding. Mr. Worden also briefly addressed the following topics: (1) SCE's current work with Mitsubishi Heavy Industries (MHI) the designer and fabricator of the SONGS Replacement Steam Generators (RSGs); (2) the timing of the RSG capital cost filing pursuant to the Commission's decision approving new steam

generators; and (3) access to SCE documents as well as Nuclear Regulatory Commission documents from the NRC websites. No materials were used during the communication.

Respectfully submitted,

DOUGLAS K. PORTER
WALKER A. MATTHEWS III

/s/ Walker A. Matthews III

By: Walker A. Matthews III

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December 07, 2012

EXHIBIT 6



FILED

12-10-12
01:41 PM

MD2/sbf 12/10/2012

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Investigation on the Commission's Own Motion into the Rates, Operations, Practices, Services and Facilities of Southern California Edison Company and San Diego Gas and Electric Company Associated with the San Onofre Nuclear Generating Station Units 2 and 3.

Investigation 12-10-013
(Filed October 25, 2012)

ADMINISTRATIVE LAW JUDGE'S RULING REQUESTING ADDITIONAL TESTIMONY

On October 25, 2012, the Commission initiated this Order Instituting an Investigation (OII) to consolidate and consider issues raised by the extended outages of Units 2 and 3 at the San Onofre Nuclear Generating Station (SONGS). Pursuant to Pub. Utils. Code §455.5, the Commission will undertake to determine whether to reduce the rates of Southern California Edison Company (SCE) and San Diego Gas & Electric Company (SDG&E).

The OII required that SCE and SDG&E provide initial testimony (1st Testimony), no later than December 16, 2012, on the question of whether the Commission should reduce each utility's rates and, if so, by how much.¹ The Commission intends to approach this inquiry in stages due to the potential wide

¹ The OII was issued on November 1, 2012, and the testimony is due 45 days thereafter.

scope and quantity of information necessary to ensure that ratepayers pay just and reasonable rates, in light of the extended outages at SONGS.

The Commission will initially gather information in the form of testimony from both SCE and SDG&E about the actual expenses each incurred in 2012 related to SONGS. SCE and SDG&E shall serve additional testimony (2nd Testimony) within 30 days of the date of this ruling which responds to the following questions:

1. A copy of any report issued by the Nuclear Regulatory Commission (NRC) or its staff that addresses the cause(s) of the outage, other than the July 18, 2012 NRC report attached to the OII;
2. A copy of any reports (including attachments) provided by any outside consultants retained to assist with the utility's investigation of the cause(s) of the Outage;
3. The type and quality of fuel used by the SONGS units,
4. If applicable (e.g., if the units are in any way fuel- or interconnection-limited), describe any limitations on the implications an outage in any one unit may or may not have on the total output of the entire facility;
5. For the last five years, whether or not there were any scheduled outages, and if so, how many and providing, for each one, the date it commenced, its duration (in days), and the purpose of each such outage;
6. For the last five years, whether or not there were any unplanned outages, and if so, how many and providing, for each one, the date it commenced, its duration (in days), and the purpose or cause of each such outage;
7. For periods of time other than those during an outage identified above, were there any periods of time during which this plant, or any unit of this plant, experienced any limitations or restrictions on its capacity or output, other than for economic dispatch purposes, such that its capacity or output was limited or restricted to a level of less than

- 90% of its nominal rated capacity or output and, if so, how many occasions and providing, for each occasion, the date it commenced, its duration, and the reason for such limitation or restriction on capacity or output;
8. SCE's original SONGS Units 2 and 3 Operation & Maintenance (O&M) budget for the last five years;
 9. The actual SONGS Units 2 and 3 O&M recorded expenses for the last five years;
 10. SCE's original SONGS Units 2 and 3 capital budget for the last five years;
 11. The actual SONGS Units 2 and 3 recorded capital spending for the last five years; and
 12. An explanation of the reasonableness of each recorded O&M expense and capital expenditure made in 2012 related to SONGS, taking into account the changed circumstances arising from the extended outages of Units 2 and 3.
 13. Provide an MS Excel spreadsheet showing quantities and costs for purchased uranium, and its fabrication and enrichment, in side-by-side columns, left to right, with the columns labeled for the relevant years and months, for:
 - each fuel type used during 2011-2012;
 - data for 2013, by month, January through December; and
 - the annual total for 2012.
 14. Identify the number of nuclear fuel purchase contracts open during 2011 and 2012, and provide the terms and conditions of the contracts related to any costs or savings arising from the extended outages of Units 2 and 3.
 15. Provide in a single MS Excel, or equivalent and compatible spreadsheet, data for both SONGS units. Beginning on a new row for each SONGS unit, provide:
 - a short, readily identifiable, label or name for each unit (e.g., "SONGS 2" and "SONGS 3");

- its California Independent System Operator (CAISO) rated capacity, for each unit, in Megawatt (MW), as of January 1, 2012, in an MS Excel number format;
 - percentage, in MS Excel percentage format, of the capacity of the units, to which the respective co-owners are entitled, as of January 1, 2012;
 - the nameplate rated capacity, for each unit, in MW, as of December 31 of 2012;
 - percentage, in MS Excel percentage format, of the capacity of the units to which the respective co-owners are entitled, as of December 31 of 2012; and
 - the average availability factors for each unit over the last five years.
16. Identify any methodology which you believe would provide a better estimate of, or proxy for, the cost of replacement energy for the current SONGS outages, than using the hour-ahead average energy prices published by the CAISO for locations in your service territory (less any appropriate avoided costs, if any), and justify your recommendation.
17. Identify any publicly-available source of hour-ahead energy prices, available for every hour of every day of the current outages, if any, which you believe would better represent hour-ahead (when appropriate) replacement energy costs in your service territory than the hour-ahead energy prices published by the CAISO, and justify your recommendation. Provide any such hour-ahead energy prices, for every hour of every day of the current outages, in an MS Excel-compatible spreadsheet.
18. Identify any publicly-available source of day-ahead energy prices, available for every hour of every day of the current outages, if any, which you believe would better represent day-ahead (when appropriate) replacement energy costs in your service territory than the day-ahead energy prices published by the CAISO, and justify your

- recommendation. Provide any such day-ahead energy prices, for every hour of every day of the current outages, in an MS Excel-compatible spreadsheet.
19. Describe the objective circumstances, if any, in which the utility can enter into bilateral energy procurement contracts that reliably and predictably incur lower total procurement costs for replacement energy than by relying on CAISO, or other Regional Transmission Organization-based public markets.
 20. Identify the methodology, if any, which you believe would readily and reliably provide a good estimate of, or proxy for, the actual costs avoided during the current outages, and justify your recommendation.
 21. Does the utility believe that it can meet a reasonable manager and/or prudence standard, in its management of SONGS regarding the current outages, and does the utility believe it currently employs an appropriate program of internal audits and controls regarding SONGS operations, including for outages?
 22. Other than Sarbanes-Oxley testing, did the utility actually perform any internal audit regarding any aspect of SONGS administration within the last five years? If yes, please specify when, the standards under which such internal audit was conducted, the areas addressed, a brief summary of results and a copy of any report of such internal audit.
 23. Provide the daily energy production for each SONGS unit from December 1, 2010, through December 31, 2012, in the following format: in an MS Excel spreadsheet, date in MS Excel date format in the first column, daily energy production of Unit 2 in the second column, and daily energy production of Unit 3 in the third column; with daily energy production entered in consistent units.
 24. Provide any nuclear notifications and/or cited or non-cited nuclear violations associated with the current outages.

25. Provide a copy of the Confirmatory Action Letter issued to SCE by the NRC on March 27, 2012, concerning the SONGS outage, and SCE's response.

SCE and SDG&E may prepare testimony jointly or separately. SCE and SDG&E shall post their written Testimony in this OII on their respective company websites to provide access to the information by parties and the public, subject to non-disclosure agreement if warranted. DRA and other parties may serve Reply Testimony on or before January 29, 2013 addressing the 1st and 2nd rounds of Testimony that SCE and SDG&E have been directed to serve in the OII and this ruling. SCE and SDG&E may serve Rebuttal Testimony on or before February 13, 2013.

IT IS RULED that:

1. Southern California Edison Company (SCE) and San Diego Gas & Electric Company (SDG&E) shall prepare and serve testimony in response to the questions set forth above in this ruling no later than January 9, 2013, and publicly post the testimony on their respective company websites.
2. Division of Ratepayer Advocates and all other parties may serve Reply Testimony on or before January 29, 2013 addressing the 1st and 2nd rounds of Testimony served by SCE and SDG&E.

3. SCE and all parties may serve Rebuttal Testimony on or before February 13, 2013.

Dated December 10, 2012, at San Francisco, California.

/s/ MELANIE M. DARLING
Melanie M. Darling
Administrative Law Judge

EXHIBIT 7



FILED
02-21-13
01:15 PM

MD2/cla 2/21/2013

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Investigation on the Commission's Own Motion into the Rates, Operations, Practices, Services and Facilities of Southern California Edison Company and San Diego Gas and Electric Company Associated with the San Onofre Nuclear Generating Station Units 2 and 3.

Investigation 12-10-013
(Filed October 25, 2012)

ADMINISTRATIVE LAW JUDGE'S RULING SETTING FILING DATE FOR APPLICATION REQUIRED BY DECISION 05-12-040; REQUESTING RELATED ADDITIONAL TESTIMONY; AND GRANTING IN PART, AND DENYING IN PART, MOTION BY RUTH HENRICKS FOR VARIOUS RELIEF

On October 25, 2012, the Commission initiated this Order Instituting Investigation (OII) to consolidate and consider issues raised by the extended outages of Units 2 and 3 at the San Onofre Nuclear Generating Station (SONGS).

A prehearing conference (PHC) was held on January 8, 2013 and a Scoping Memorandum and Ruling (Scoping Memo) was issued on January 28, 2013. At the PHC, the procedural schedule was discussed and developed based on currently known information, including the expectation of conducting the OII in Phases. The Phases are to be coordinated with the consolidation of Southern California Edison Company's (SCE) upcoming applications related to review of: (1) 2012 SONGS-related Operating and Maintenance costs and Capital Expenditures; and (2) costs related to the Steam Generator Replacement Project

(SGRP). At the PHC, SCE committed to filing the SGRP cost review application in March 2013.

The Scoping Memo reflects the joint conclusion of the assigned Commissioner and the Administrative Law Judge that the OII will be divided into multiple Phases to promote the efficient administration of the various facets of this OII. We anticipated that each Phase would be scoped in more detail following a PHC, but provided a broadly stated scope for the future Phases. In particular, we described Phase 3 as reviewing for purposes of rate recovery: (1) causes of damage to the steam generators and allocation of responsibility; (2) whether the claimed SGRP expenses are reasonable; and (3) whether additional utility proposed post-outage repair and/or replacement costs are reasonable.

Date for SCE to file SGRP Application

Decision (D.) 05-12-040 ordered SCE, after completion of the SGRP, to file an application for inclusion of the SGRP costs permanently in rates, regardless of whether costs exceeded the revised cap of \$670 million. The Commission did not specify any particular date for the filing. After discussions with the Commission's Energy Division about final shipment of removed parts, SCE stated it would file the application in March 2013, an intention SCE affirmed at the PHC. SCE shall file the application on or before March 15, 2013.

SCE to Submit Supplemental Testimony

In addition, SCE shall serve supplemental testimony at the same time as the application which responds to the following questions:

1. For the following Advice Letters submitted by SCE, as permitted by D.05-12-040, to implement interim revenue requirements for recovery of costs related to replacement of the steam generators at SONGS units 2 and 3, clearly

explain how SCE calculated the requested revenue requirement:

- Advice 2521-E dated November 1, 2010;
 - Advice 2648-E dated December 27, 2011; and
 - Advice 2834-E dated December 31, 2012.
2. Identify the rates of depreciation and service life assumptions applied to the various components which form the basis for the revenue requirement requests identified in number 1 above.
 3. For all expenses in excess of \$1 million, identify each SGRP expense categorized as "Investigation" and "Repairs-After Outage" aggregated in SCE's monthly report (\$67.06 million and \$27.3 million, respectively) submitted on February 1, 2013.

Motion by Ruth Henricks

On February 7, 2013, Ruth Henricks filed a motion seeking: (i) an order setting deadline for the SGRP Cost Application; (ii) modification of the Scoping Memo for Phase 1 to include a reasonableness review of SCE's SGRP cost application, when filed; and (iii) an order suspending the collection of any rates for SGRP costs and requiring a refund to ratepayers of all SGRP-related rates collected by SCE.

As set forth in D.05-12-040, SCE shall file an application for inclusion of the SGRP costs permanently in rates after completion of the project, including removal and disposal of the original steam generators. This ruling establishes March 15, 2013 as the date by which SCE shall file its application for review of the SGRP costs.

However, the request to include the SGRP cost reasonableness review in Phase 1 of the OII should be denied because it is premature and would disrupt the orderly accumulation of evidence of SCE's actions and expenses at SONGS as set forth in the Scoping Memo. The SGRP costs, and post-outage repairs and

related expenses, are most efficiently examined together, particularly after SCE determines whether it will seek to restart either unit later this year.

Lastly, the Henricks motion for a halt to interim collection of a portion of the costs in rates, beginning in 2011 following Commission approval of SCE's Advice Letters, should be denied due to improper form and lack of evidence. In Ordering Paragraph 9 of D.05-12-040, the Commission authorized SCE:

to include the revenue requirement associated with the balancing account balance for steam generator replacement for each unit in rates, subject to refund if a reasonableness review is performed, on January 1 of the year following commercial operation of each unit. SCE shall file an advice letter to implement the above.

Therefore, any modification to this previous Commission decision must occur as a result of a Petition for Modification which conforms with Rule 16.4 of the Commission's Rules of Practice and Procedure. The motion does not meet this requirement nor does it provide new evidence which could support such a petition.

IT IS RULED that:

1. Southern California Edison Company (SCE) shall file and serve its application for inclusion of the Steam Generator Replacement Project (SGRP) costs permanently in rates no later than Close of Business on March 15, 2013. San Diego Gas & Electric Company may file its application jointly with SCE or file separately on or before March 22, 2013.

2. With the SGRP application, SCE shall prepare and serve testimony in response to the questions set forth above in this ruling, and publicly post the testimony on the utility's website with other Order Instituting Investigation testimony.

3. The motion by Ruth Henricks is granted to the extent that a date is set by which SCE must file its SGRP cost application, but is denied as to all other requests for relief.

Dated February 21, 2013, at San Francisco, California.

/s/ DOROTHY J. DUDA for
Melanie M. Darling
Administrative Law Judge

EXHIBIT 8

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DRAFT FOR REVIEW BY DON LAFRENZ

1 December 2013

TO: Donald Lafrenz, CPUC

FROM: Robert Budnitz

SUBJECT:

An evaluation that explains why the performance of the replacement steam generators at Diablo Canyon Power Plant has been different than the performance of the replacement steam generators at SONGS

SCOPE

In the "Scope of Work" part of the CPUC agreement that engaged my consulting services, the first "Deliverable" is described as follows:

Within approximately 90 days of the commencement of the contract (the contract is expected to commence by the middle of September 2013) provide a report to the Energy Division with an analysis focusing on why the steam generators at DCPD and their design has been successful while the SGs design by Mitsubishi for SONGS resulted in excessive tube wear and tube failure.

In my first meeting with you and your CPUC colleagues on 30 September 2013, you noted that one important part of this evaluation would be to review the findings and conclusions of the Diablo Canyon Independent Safety Committee (DCISC) on this same technical issue.

WHAT I DID

First I reviewed the DCISC's 2012 and 2013 Annual Reports to find what I could on this subject. (Of course, I am one of the 3 members of the DCISC, so this was easy for me to do.) Then, I reviewed the information that I had already learned from my study of several different documents that I had been reviewing anyway, so as to gain a full understanding of the technical issues related to the events at SONGS. These included documents from So. California Edison, from Mitsubishi, and from the US Nuclear Regulatory Commission, along with general information on steam generator performance that I had available to me.

Then I thought about the issue a bit, sat down, and I am writing this report.

MY ANALYSIS

The explanation of why the performance of the RSGs (replacement steam generators) at Diablo Canyon has been different than that of the RSGs at SONGS is on one level rather easy. A major part of the explanation is that the specifications for the DCPD and SONGS designs, while superficially similar, are quite different. The SONGS RSGs are much larger --- the SONGS reactor design uses two SGs per unit, while the DCPD design has four SGs per unit, so the amount of energy, power, water, etc. that the SGs at SONGS need to process and cope with at full power is about twice as large. (This is approximate -- the DCPD reactors produce about 6-7% more power than did those at SONGS, a modest difference.)

This size difference by itself places very different constraints on the RSG design in terms of flows, stresses, material properties, and the like. The design solutions always need to embed "margin" in various attributes to assure that performance is adequate, but the way these margins are determined, the places where they are embedded, the amounts of the different margins, and the figures-of-merit used by the different designers are all different, sometimes markedly so. For example, there are margins in the heat-transfers, in the material strengths, in the configuration tolerances and clearances, in the allowances for manufacturing errors, and so on. Taken all together, these margins should produce a final design that will operate without the problems that were experienced at SONGS. And the fact that the SONGS and Diablo Canyon RSGs are so different in size means that these design solutions are surely very different in detail.

Second, the designs were executed and the SGs were built by different manufacturers, Mitsubishi (a Japanese firm) in the case of SONGS, and in the case of DCPD Equipos Nucleares SA (a Spanish firm, but with major parts made by subcontractors in Japan and Sweden.)^{*} As is true of many other pairs of similar products made by different manufacturers (think of similar passenger cars by Ford and Toyota, or similar commercial aircraft by Boeing and Airbus, or even similar household refrigerators or furnaces), the design solutions arrived at by the various manufacturers are different enough that they are simply not comparable at the level of detailed engineering. Hence, only a minutely detailed comparison at the level of numerous specific design decisions (involving the numerous "tradeoffs" that are the real nitty-gritty of any complex design problem) could reveal genuine differences that would affect performance.

Third, and most importantly, it is clear that somewhere along the line as the SONGS RSGs went from conceptual design to detailed design to fabrication to testing to installation to operation, one or more errors was made. That this is so almost a tautology --- Mitsubishi itself has produced RSGs at other nuclear plants around the world that have performed satisfactorily, as have the RSGs made by several other SG manufacturers. On the part of everyone involved, there was every expectation that this successful

^{*} The major forgings for DCPD's RSGs were made by Japan Steel Works and the tubing was made by Sandvick, a Swedish firm, all under subcontract to ENSA.

performance record would be true at SONGS also. It wasn't, and that implies one or more errors somewhere --- I am not sure where, but somewhere.

My insight from observing that different design solutions were found for a "similar design problem" for SONGS vs. DCPD is that, because of the differences (size, for one, but other differences too), the opportunity for a similar error was very small – not zero, but very small.

Most importantly, the RSGs at Diablo Canyon have performed very well so far, since 2008 (Unit 2) and 2009 (Unit 1), meaning into what is now Unit 2's third refueling cycle and Unit 2's fourth cycle. Based on this experience, it is clear that no similar error(s) occurred at DCPD. Thus my answer to the question in the "Scope of Work" ("*why the steam generators at DCPD and their design has been successful while the SGs design by Mitsubishi for SONGS resulted in excessive tube wear and tube failure*") is that at DCPD no comparable errors were committed.

That, in a nutshell, is my evaluation of the difference. If it sounds obvious – well, it is.

This was also the evaluation of the DCISC when the committee asked (and tried to answer) the same question. The DCISC's remit is evaluating the operational safety at Diablo Canyon, and to discharge that remit the DCISC reviewed the performance of the RSGs at DCPD after the adverse news from SONGS made it pressing to do so. Based on that review, the DCISC members convinced themselves that problems similar to those at SONGS had not occurred at DCPD. The DCISC then wrote that down and moved on – with the caveat that the DCISC has committed to reviewing the performance of the Diablo Canyon RSGs on an ongoing basis, after each outage for example, or whenever other information may arise. And to date, the information supports a continuing conclusion at DCPD of "so far so good."

The DCISC documented its conclusion on this technical topic in its May 2012 Fact Finding report, which conclusion was repeated verbatim in its 2011-2012 Annual Report (released in autumn 2012), to wit:

Because of the San Onofre Generating Station (SONGS) Steam Generator (SG) tube failures of relatively new SGs, the DCISC reviewed the health of DCPD's relatively new SGs. DCPD's SG tubes had shown excellent inspection and test results in Outages 2R15 and 1R16 and are considered to be in excellent health. DCPD's plant and SGs were designed and fabricated by a different manufacturer than SONGS. Although in excellent health, the DCISC will monitor SG inspection results during future outages.

This simple conclusion is all that can be found in the DCISC's 2011-2012 annual report on this subject. Nothing that has arisen from inspections or other performance data at DCPD in the intervening year-plus has provided any information that would challenge this conclusion, and the subject is not discussed explicitly in the DCISC Annual Report for 2012-2013.

IS MORE DESIRED?

I have tried to provide as straightforward an answer as I can to the question asked (*"why the steam generators at DCPD and their design has been successful while the SGs design by Mitsubishi for SONGS resulted in excessive tube wear and tube failure."*)

If more is desired, then I can undertake it. But that would be addressing a different question. Such a question might be, for example, *"What error(s) led to the tube failure(s)?"* or *"At what stage were those errors made?"* or *"Who made those errors?"* or *"What might have been done, and by whom, and at what stage, to have averted those errors?"* or *"What arrangements in place elsewhere, technical or administrative or both, that were successful in averting these errors somehow didn't work adequately for the SONGS RSGs?"* Each of these is a much bigger question, one that I am developing insights into but on which my opinion(s) will only crystallize later as I dig into more information.

EXHIBIT 8

ALJ/MD2/KD1/sbf

Date of Issuance 11/25/2014

Decision 14-11-040 November 20, 2014

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Investigation on the Commission's Own Motion into the Rates, Operations, Practices, Services and Facilities of Southern California Edison Company and San Diego Gas and Electric Company Associated with the San Onofre Nuclear Generating Station Units 2 and 3.

Investigation 12-10-013
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And Related Matters.

Application 13-01-016
Application 13-03-005
Application 13-03-013
Application 13-03-014

DECISION APPROVING SETTLEMENT AGREEMENT AS AMENDED AND RESTATED BY SETTLING PARTIES

5.1.1. The Agreement is Reasonable in Light of the Whole Record

The Agreement is reasonable in light of the whole record, Settling Parties argue, because on “a basic level” ratepayers pay for power they received and don’t pay for the SGRP after the outages.⁷¹ The result is presented as a fair and reasonable solution, reached as a result of substantial negotiations, and is within the range of potential outcomes proposed by the Settling Parties during the OII.

Settling Parties assert the record contains sufficient information for the Commission to make this finding, given the thousands of pages of written testimony on a wide range of issues, from many different witnesses, covered by three phases of hearings over 12 days, with lengthy post-hearing briefs filed by the Settling Parties. The Utilities separately note they have already responded to over a thousand data requests from the parties.⁷² Settling Parties claim the magnitude of information and depth of analysis in the record underpinned the success of the substantial negotiations undertaken by the Utilities, TURN and ORA.

Settling Parties claim the negotiated outcomes of various provisions in the Agreement, including recoveries and disallowances, demonstrate that compromises were reached for thoroughly litigated positions.⁷³ On the other hand, they claim that potential Phase 3 findings on the causes of tube wear and SCE’s prudence in managing the SGRP are unnecessary to find the Agreement is reasonable in light of the whole record. Instead, they argue the primary purpose

⁷¹ Joint Motion at 39.

⁷² *Id.* at 37.

⁷³ *Ibid.*

of this settlement is to avoid the costs, time, and burden on all parties to get to the cause of the damage and reasonableness of consequential costs.

Lastly, Settling Parties state the Agreement reflects a fair resolution of their respective litigation positions. In support, they provide an illustrative comparison of the present value of the SONGS revenue requirement for each settling party's litigation position with the results of the proposed Agreement.⁷⁴ The reduction to the Utilities' original revenue requirements indicates significant concessions which, according to Settling Parties, reflects write-offs of more than \$800 million (\$nominal) in SGRP-related costs after January 31, 2012.⁷⁵

CCUE offered additional comments in which it stated its support for the Agreement was primarily based on treatment of 2012-2013 O&M costs, particularly severance costs because they argue staff retention was necessary to operate plant equipment when restart was still a possibility.⁷⁶

In an attachment to the original agreement, Settling Parties included an estimate of the Present Value Revenue Requirement (PVRR) for each Utility based on the litigation positions of the Utilities, DRA, and TURN, in comparison to the outcome under the Agreement. The table below shows an excerpt of this PVRR, as updated in exhibits SCE-56 and SDGE-23, with the combined revenue requirements of the two Utilities. Note that the PVRR is calculated at a discount rate of 10%.

⁷⁴ *Id.*, Attachment 2.

⁷⁵ *Id.* at 39.

⁷⁶ CCUE Opening Comments (OC) at 2-3.

significance. SCE provided explanatory comments, but did not contest the NOV.²²⁰

A4NR concludes the NOV compels SCE to admit imprudence and the Commission to assume SCE did not conform to the “reasonable manager standard” because regulatory compliance is an important factor. According to A4NR, if the settlement is rejected, the resulting Phase 3 would simply establish the costs to be allocated to shareholders.


We disagree with A4NR that the existence of this NOV alone, is legally sufficient to establish SCE’s overall imprudent management of the SGRP. A4NR provided no citation support for its theory of strict and broad liability arising from a single low to moderate safety violation by SCE. Instead, other evidence would be necessary.

In a Phase 3 inquiry, SCE’s decisions that led to costs would be evaluated with regard to information available to it at the time and not with the benefit of hindsight. This promises to be a fact-intensive record. The consequence of finding SCE imprudent at some point during the SGRP would likely be to disallow costs, but the range of evidentiary outcomes is wide.

For example, SCE views the NOV as a technical violation, and responds that it contracted with Mitsubishi to perform the design functions, purportedly an industry standard for utilities purchasing nuclear plant components.²²¹ This type of industry practice evidence is what the Commission typically considers as

²²⁰ See, <http://pbadupws.nrc.gov/docs/ML1329/ML13296A018.pdf>.

²²¹ <http://pbadupws.nrc.gov/docs/ML1329/ML13296A018.pdf>; “Contracting with the equipment vendor to perform required nuclear quality assurance activities, as authorized by 10 CFR Part 50, Appendix B, Criterion I, is the normal and standard practice for utilities engaged in purchasing nuclear plant components.”

part of its effort to determine whether a utility has acted reasonably.²²² We acknowledge that an NOV is a significant regulatory action, and that this one relates specifically to the RSG design process. However, not all violations are equal nor of a severity as to invoke an automatic presumption or conclusion of imprudent management over a five to seven year project. 

Here, there are fingers pointed between SCE and Mitsubishi in a pending arbitration. In fact, the NRC also issued a Notice of Nonconformance to Mitsubishi because it found errors with Mitsubishi's modeling of the vibration analysis it relied upon to assure SCE the design was compliant with NRC requirements.²²³ Therefore, SCE's knowledge, when making decisions to incur costs between 2005 and 2009, is still unsettled and cannot be overlooked when evaluating the reasonableness of SCE's SGRP-related decisions.

Based on the foregoing, the Commission does not find that the NOV issued to SCE is determinative of the company's prudence when managing the SGRP.

7.1.5. ORA's Participation Does Not Violate § 309.5

WEM argues that ORA violated its statutory duties by participating in the proposed settlement. Section 309.5 provides that the purpose of ORA is "to represent and advocate on behalf of the interests of public utility customers...goal...is to obtain the lowest possible rate for service consistent with reliable and safe service levels."

²²² 53 CPUC2d 452 1994 CPUC LEXIS at *30 (Mohave Coal Plant Accident).

²²³ <http://pbadupws.nrc.gov/docs/ML1331/ML13311B101.pdf> (Nonconformance with Criterion III of Appendix B to 10 CFR Part 50 (Specifically, the code and inputs to the flow induced vibration analysis software (FIVATS) vibration code were not verified to be in accordance with MHI design requirements).