Docket : I.12-10-013

Exhibit Number : DRA-1
Commissioner : Florio

Admin. Law Judge : Darling



## DIVISION OF RATEPAYER ADVOCATES CALIFORNIA PUBLIC UTILITIES COMMISSION

Division of Ratepayer Advocates Testimony Regarding SONGS 2 & 3, SCE/SDG&E December 17, 2012, January 9, 2013 and January 31, 2013 Testimonies

San Francisco, California

March 29, 2013

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#### **DIVISION OF RATEPAYERADVOCATES TESTIMONY**

#### A. Recommendations

This exhibit presents the Division of Ratepayer Advocates' (DRA) testimony in response to the December 17, 2012, January 9, 2013 and January 31, 2013 testimonies of Southern California Edison Company (SCE) and San Diego Gas and Electric Company (SDG&E) regarding San Onofre Nuclear Generating Station (SONGS) Units 2 & 3.

DRA makes the following recommendations regarding SCE/SDG&E's testimonies:

- ➢ Policy Statement: DRA recommends that the Commission issue a decision supporting the investigation by the U.S. Nuclear Regulatory Commission (NRC) into the allegations as described within the February 6, 2013 Senator Boxer-Representative Markey letter to the NRC.
- ➢ Policy Statement: Considering the ongoing NRC investigation of the SONGS replacement steam generators and the requirements to address the reasonableness of that project, the Commission should not rush to determine the reasonableness of SCE and SDG&E's 2012 SONGS expenses.
- ➤ The Commission should remove the revenue requirement associated with SONGS 2 & 3 expenses (that are non-security and not safety-related) and rate base from rates, and terminate the utilities' interim rate recovery for the Steam Generator Replacement Project (SGRP), as of January 31, 2012.
- The Commission should immediately refund SONGS 2 & 3 over-collections from rates.

- Since SONGS had only one refueling outage (RFO) in 2012, SCE should refund SONGS' 2012 RFO over-collection to ratepayers.
- B. Policy Statement: DRA Recommends (1) The Commission Issue a Decision Supporting the NRC Investigation into the Allegations Described Within the Senator Boxer-Representative Markey letter and (2) Considering the Ongoing NRC Investigation of the SONGS Replacement Steam Generators, the Commission Should Not Rush to Determine the Reasonableness of SCE and SDG&E's 2012 SONGS Expenses

The NRC has stated that it is investigating the problems with the SONGS steam generators, and that at this time, a NRC decision on restarting SONGS Unit 2 is not expected until May  $2013.\frac{1}{2}$ 

On February 6, 2013, U.S. Senator Barbara Boxer and Representative Edward Markey wrote to NRC Chairman Allison Macfarlane about a 2012 Mitsubishi Heavy Industries (MHI) document entitled "Root Cause Analysis Report for tube wear identified in the Unit 2 and Unit 3 Steam Generators of San Onofre Generating Station" (MHI Report). MHI is the manufacturer of the component part that caused the SONGS outages. The Boxer-Markey letter states "[w]e strongly urge the Nuclear Regulatory Commission (NRC) to promptly initiate an investigation concerning the troubling information contained in this Report." <sup>2</sup>

According to the Boxer-Markey letter, the MHI Report makes some allegations about the SONGS replacement steam generators (RSG):

The Report indicates that Southern California Edison (SCE) and MHI were aware of serious problems with the design of

<sup>&</sup>lt;sup>1</sup> NRC website: www.nrc.gov/info-finder/reactor/songs/tube-degradation.html#publicly

<sup>&</sup>lt;sup>2</sup> Boxer-Markey Letter, February 6, 2013 (Attachment 1).

San Onofre nuclear power plant's replacement steam generators before they were installed. Further, the Report asserts that SCE and MHI rejected enhanced safety modifications and avoided triggering a more rigorous license amendment and safety review process.

For example, the Report states that although SCE and MHI accepted some adjustments to the replacement steam generators, further safety modifications were found to have 'unacceptable consequences' and were rejected: 'Among the difficulties associated with the potential changes was the possibility that making them could impede the ability to justify the RSG [replacement steam generator] design' without the requirement for a license amendment. The Report also indicates that SCE's and MHI's decision to reject additional safety modifications contributed to the faulty steam generators and the shutdown of reactor Units 2 and 3.3

In response to a DRA data request, SCE stated that it did not have a copy of the MHI Report:

SCE does not have the requested Mitsubishi Heavy Industries (MHI) Root Cause Evaluation (RCE). Several SCE employees at SONGS were permitted to read an early draft or executive summary of the RCE early in the outage as the two companies investigated the cause of the outages at SONGS, but the SCE employees were not permitted to copy or download the document. The draft document was posted by MHI on a password-protected web page managed by a vendor named "Certrec," but it was subsequently removed by MHI. SCE has not been permitted to examine the RCE. MHI has told SCE that it claims the RCE is proprietary. 4

<sup>&</sup>lt;sup>4</sup> SCE response to DRA data request DRA-Verbal-001, Q.1.

On February 8, 2013, NRC Chairman Macfarlane responded to the Boxer-Markey letter, stating that the NRC's "investigation is ongoing, and includes examination of the MHI report along with other evidence." <sup>5</sup>
On March 8, 2013, the NRC released a redacted version of the MHI Report.  $\frac{6}{}$ 

DRA recommends that the Commission issue a decision supporting the NRC's ongoing investigation into the allegations in the Boxer-Markey letter. The results from the NRC's investigation will provide valuable information as to the reasonableness of SCE's and Mitsubishi's actions.

Given the ongoing NRC investigation of the SONGS replacement steam generators, the Commission should not rush to determine the reasonableness of SCE and SDG&E's 2012 SONGS expenses. The need of SCE to incur expenditures after the SONGS shutdown is associated with the SONGS steam generator replacement project. Until the NRC has completed its full investigation of the status of the SONGS replacement steam generators, it is premature for the CPUC to try to delve into the reasonableness of SCE's more recent actions. The NRC is the governmental agency that is responsible for safety oversight of the SONGS facilities. As such, the NRC possesses the capability, resources

<sup>&</sup>lt;sup>5</sup> February 8, 2013 letter from NRC Chairman Macfarlane to U.S. Senator Boxer and Representative Markey: <a href="https://www.nrc.gov/reading-rm/doc-collections/congress-docs/correspondence/2013/">www.nrc.gov/reading-rm/doc-collections/congress-docs/correspondence/2013/</a>

<sup>&</sup>lt;sup>6</sup> NRC website: <u>public-blog.nrc-gateway.gov/2013/03/08/two-important-reports-about-steam-generators-at-songs-go-public/</u> The redacted MHI Report states on page 7 of 64 that the two root causes of SONGS RSG tube wear are as follows:

<sup>&</sup>quot;1. Insufficient programmatic requirement to assure effective AVB [anti-vibration bar] contact force to prevent in-plane fluid elastic instability and random vibration and subsequent wear under high localized thermal-hydraulic conditions (steam quality (void fraction), flow velocity and hydro-dynamic pressure).

<sup>&</sup>quot;2. The design control process did not provide sufficient direction to assure that an evaluation of the need for an analysis of flow induced vibration of the retainer bar was performed and verified."

and expertise required to properly and thoroughly investigate is sues pertaining to the shutdown of the SONGS facilities. The Commission should wait for a full report from the NRC on SONGS.

Consistent with the approach taken with the federal investigation of the San Bruno gas explosion, the Commission should defer action and take full advantage of the expertise of the NRC and ongoing federal investigations. The SONGS Outage Memorandum Account will protect ratepayers until the causes and consequences of the SONGS outage are determined. In the meantime, the Commission should remove from customer rates the revenue requirement associated with SONGS rate base and non-essential expenses given that the facility is not used and useful.

## C. The Commission Should Remove the Revenue Requirement Associated with Certain SONGS Expenses and SONGS Rate Base From Rates

According to an August 2012 SCE response to a DRA data request, the SCE 2012 SONGS 2 & 3 revenue requirement was approximately \$650 million, with \$339 million being capital-related (depreciation, taxes, return on rate base and Steam Generator Replacement Project interim rates). According to SCE's December 2012 testimony, the 2012 SONGS 2 & 3 revenue requirement is \$739 million, with \$267 million being capital-related. According to SCE's December 2012 testimony, the net rate base balance for SONGS 2, 3 and common facilities, excluding the Steam

<sup>&</sup>lt;sup>7</sup> SCE response to DRA data request 1, Q.1. SCE's response omitted nuclear fuel and decommissioning revenue requirements.

<sup>&</sup>lt;sup>8</sup> Exh. SCE-1, p. 7, Table III-1, col. A.

Generator Replacement Project (SGRP), is approximately \$545 million, as of October 31, 2012.  $\frac{9}{}$ 

SDG&E's December 2012 testimony states that its share of 2012 SONGS 2 & 3 revenue requirement is \$252.8 million, with \$69.53 million being capital-related. SDG&E's testimony includes a footnote that its 2012 "authorized" SONGS revenue requirement is a 2011 revenue requirement plus an attrition increase, and notes that there is currently no decision in SDG&E's TY 2012 General Rate Case (GRC), A.10-12-005. In response to a DRA data request, SDG&E stated that the net rate base for SONGS 2, 3 and common facilities, excluding the SGRP, is \$96.4 million, as of October 31, 2012. 12

SONGS 2 began a scheduled refueling outage on January 10, 2012, an outage that SCE expected to last until March 5, 2012. On January 31, 2012, Unit 3 experienced a forced outage due to a reactor coolant leak in one of its steam generators. Neither Unit has operated since January 2012.

DRA recommends that given the continued non-operation of SONGS 2 & 3 since January 2012 to the present, the Commission should immediately remove the SONGS 2 & 3 rate base from rates, along with termination of the utilities' interim rate recovery for the SGRP. With the ongoing outage, SONGS 2 & 3 are not "used and useful", and therefore should be removed from rates immediately. Utility recovery of SONGS 2 &

<sup>&</sup>lt;sup>9</sup> Exh. SCE-1, p. 13.

 $<sup>^{10}</sup>$  Exh. SDGE-1, p. 5, Table III-1. The \$69.53 million figure is comprised of \$24.2 million of GRC-related capital costs, \$31.98 million on SGRP capital costs and \$13.35 million in SONGS Major Additions Adjustment Clause (MAAC) costs.

<sup>11</sup> Exh. SDGE-1, p. 6, Table III-2, note 1.

<sup>&</sup>lt;sup>12</sup> SDG&E response to DRA data request 2, Q.5.

<sup>&</sup>lt;sup>13</sup> SCE letter to CPUC Executive Director Paul Clanon, December 6, 2012.

3 rate base related revenue requirements, along with SGRP revenue requirements, should be terminated effective January 31, 2012, the date of the Unit 3 forced outage.

In its testimony, SCE has identified total 2012 SONGS 2 and 3 base O&M costs of \$283.3 million. SCE has further categorized a portion of those expenses as security and safety-related, totaling \$91.5 million, which it alleges should be exempt from being subject to refund or removal. DRA recommends that the SONGS 2 and 3 operational and maintenance expenses that are not security and safety-related be removed from rates. For illustrative purposes, the difference would be \$191.8 million. DRA is not adopting SCE's cost estimates or exemption estimates.

## D. The Commission Should Immediately Refund SONGS 2 & 3 Over-Collections From Rates

SCE states "it is still not possible to provide a complete submittal of facts associated with the outages." In light of this position, the reasonableness review of all expenses booked into the SONGS 2&3 Outage Memorandum Account (SONGSMA) for 2012 and beyond should remain open as additional facts and evidence become available. In the meantime, the Commission should order refunds to SCE's and SDG&E's customers for unnecessary charges associated with these facilities which have already been collected in rates. 17

Immediate refunds are justified based on the following principles:

First, the authorized revenue requirement is greater than the 2012 actual expenditures. This demonstrates that the revenue requirement

<sup>&</sup>lt;sup>14</sup> Exh. SCE-1 at p. 20, Table V-3.

<sup>15</sup> Exh. SCE-1 at p. 21, Table V-4.

<sup>&</sup>lt;sup>16</sup> Exh. SCE-4, p. 1, Ins. 21-21.

<sup>&</sup>lt;sup>17</sup> Jan. 28, 2013 OII Scoping Memo and Ruling, p. 3, Phase 1, para 2.

collected, but not expended, was unnecessary. The authorized capital expenses, base operations and maintenance (O&M) expenses, and refueling outage (RFO) expenses were \$189 million, \$389 million, and \$46 million, respectively. The actual expenditures were \$168 million capital, \$364 million O&M, and \$45 million RFO. All of these differences should be reflected in the SONGSMA and the revenue requirement should be adjusted accordingly.

Second, SCE is responsible for collecting all incremental steam generator inspection and repair costs (\$130.1 million in 2012) from the manufacturer of the replacement steam generators, MHI. To date, SCE has received \$45.4 million from MHI, and states that the total amount to be paid to SCE will not be known for some time. 19 Regardless of the ultimate disposition of the resolution of the issues between SCE and MHI, ratepayers are not responsible for these charges, and therefore no inspection and repair costs should be carried in the SONGSMA.

Finally, while SONGS is out of service and yet remains in rates, SCE's and SDG&E's ratepayers have been responsible for replacement power costs, subject to future reasonableness review. Paying for replacement power in addition to paying the total revenue requirement associated with SONGS is in effect paying for the power twice. SCE's SONGSMA entry for calendar year 2012 replacement power is \$175 million. SCE's entry is based on its methodology for calculating replacement power costs. While the Energy Resource Recovery

<sup>&</sup>lt;sup>18</sup> All figures are 100 percent share, in 2012 dollars, from Exh. SCE-4, p. 12. (Authorized RFO from D.12-11-051, p. 33.)

<sup>&</sup>lt;sup>19</sup> Exh. SCE-4, p. 14, Ins. 8-12.

<sup>&</sup>lt;sup>20</sup> SCE March 1, 2013 Monthly Report in Compliance with I.12-10-13; SDG&E's SONGSMA balances are not yet available.

<sup>&</sup>lt;sup>21</sup> Exh. SCE-2, pp. 18-26.

Account (ERRA) forecast proceedings generally determine the reasonableness and revenue requirement associated with purchased power, the OII is the logical policy setting forum regarding the replacement power costs, estimating methodology, and final calculation. But adjustments to the SONGSMA can be ordered now in the OII to prevent double billing for SONGS power.

## E. SONGS 2012 Refueling Outage Revenues & Costs

According to SCE's December 2012 testimony, the 2012 authorized refueling outage (RFO) O&M revenue requirement is  $\$0.\frac{23}{}$  SCE's testimony states that "D.12-11-051 [the SCE Test Year (TY) 2012 General Rate Case (GRC) decision] does not include funding for any refueling outages in 2012 although one refueling did occur in January and February of 2012."

In contrast, SDG&E's December 2012 testimony shows \$28.72 million authorized in rates for 2012 for RFO. SDG&E's testimony states "[m]oreover, SCE had forecasted two refueling outages in 2012 for a total of \$28.7 million. Consistent with SCE's (the operating owner of SONGS) assumptions, SDG&E also assumed two refueling outages."

In SCE's TY 2012 GRC, SCE included an exhibit that shows 2012 authorized SONGS refueling revenues of \$102.6 million.  $\frac{27}{}$  The exhibit

<sup>&</sup>lt;sup>22</sup> The OII Scoping Memo and Assigned Commissioner Ruling identifies replacement power costs as a Phase 4 issue, p. 4.

<sup>&</sup>lt;sup>23</sup> Exh. SCE-1, p. 7, Table III-1, ln. 3.

<sup>&</sup>lt;sup>24</sup> Exh. SCE-1, p. 8, fn. 6 (excerpt).

<sup>&</sup>lt;sup>25</sup> Exh.SDGE-1, p. 4, Table III-1, In. 4; p. 5, Table III-2.

<sup>&</sup>lt;sup>26</sup> Id., p. 6. Ins. 11-13.

<sup>&</sup>lt;sup>27</sup> A.10-11-015, Exh. SCE-10, Vol. 1, Table II-2, In. 15, "Summary of Approved and Forecasted Authorized Estimated Base Revenue Requirement (ABRR) Changes (continued on next page)

states "Add: One SONGS 2&3 Refueling [\$]102.607". The \$102.6 million RFO revenue total appears to be for two RFOs, not one.

In a data request, DRA asked SCE about the \$102.6 million amount in rates for 2012. SCE responded:

In D.09-03-025 (i.e., SCE's 2009 GRC Decision), the Commission authorized SCE to continue use of the flexible Refueling and Maintenance Outage cost recovery mechanism for refueling outages at SONGS. On December 27, 2011, SCE filed Advice Letter 2648-E-A to implement the approved consolidated revenue requirements and rate changes effective on January 1, 2012. In Advice Letter 2648-E-A, SCE assumed there would be two refueling outages at SONGS in 2012, one beginning in January for Unit 2 and another beginning in October for Unit 3. The authorized amount for each refueling outage in 2011 was \$51,303 million. Therefore. on January 1, 2012, SCE included \$102.606 million in rate levels based on the assumption at that time that there would be two refueling outages in 2012. Only one refueling occurred in 2012. However, based on D.12-11-051 (i.e., SCE's 2012) GRC Decision), the Commission has required that the actual cost of the refueling outage at Unit 2 is to be recorded in the SONGS Memorandum Account established by D.12-11-051 for possible future recovery. The resulting over-collection (i.e. the difference between revenue realized from January 1, 2012 rates and recording zero authorized amounts in the Base Revenue Requirement Balancing Account) will be refunded to customers once the year-end 2012 BRRBA balance is included in rates pending a Commission decision in SCE's 2013 ERRA Forecast proceeding (A.12-08-001). 28

According to SCE's January 2013 testimony, the 2012 RFO budget for 2012 was \$43.9 million, while recorded costs totaled \$44.6 million,

<sup>(</sup>continued from previous page)

Excluding Amounts Requested In This Proceeding (thousands of dollars)". (Attachment 2).

<sup>&</sup>lt;sup>28</sup> SCE response to DRA data request 2, Q.3 (emphasis added).

through November 30, 2012. In response to a DRA data request, SCE stated that the total actual 2012 recorded RFO expenses totaled \$43.9 million (January through May 2012). Exhibit SCE-4 states that the 2012 recorded costs for the Unit 2 Cycle 17 RFO were \$45.1 million. Since SCE was authorized \$102.6 million in rates for two 2012 RFOs, and the actual recorded 2012 RFO expenses were \$45.1 million, SCE appears to have over-collected the difference, \$57.5 million.

DRA recommends that the Commission (1) direct SCE to refund any RFO revenues recovered in rates that are in excess of the RFO expenses incurred in 2012 and incorporate the adjustment in rates immediately and (2) direct SCE and SDG&E to do the same for 2013 and incorporate the adjustments in the end of year 2013 update or attrition filing.

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<sup>&</sup>lt;sup>29</sup> SCE Appendix 1 to Testimony of Southern California Edison-Exhibits SCE-2 and SCE-3, Attachments for Responses to Questions Nos. 1, 5-15, and 22-23, Tab 8.

<sup>&</sup>lt;sup>30</sup> SCE response to DRA data request 2, Q. 4.

<sup>31</sup> Exh. SCE-4 at 76, In. 11.

## QUALIFICATIONS AND PREPARED TESTIMONY OF TRUMAN L. BURNS

- Q.1 Please state your name and business address.
- A.1 My name is Truman L. Burns. My business address is 505 Van Ness Avenue, San Francisco, California, 94102.
- Q.2 By whom are you employed and in what capacity?
- A.2 I am employed by the California Public Utilities Commission as Program and Project Supervisor in the Division of Ratepayer Advocates Energy Cost of Service and Natural Gas Branch.
- Q.3 Briefly describe your educational background and work experience.
- A.3 I received a B.A. in Political Science and English and a M.A. in Political Science, State Politics and Policy Specialization, from the University of California, Davis, I received a J.D. from the University of San Francisco, and am a member of the California Bar. I joined the CPUC's Special Economics Projects Branch in 1986. During my employment with the CPUC, I have performed various tasks, and have spent most of my time on electric utility regulation. I have testified before the Commission related to PG&E's Diablo Canyon nuclear power plant (steam generator replacement cost effectiveness, nuclear decommissioning trust funds, target capacity factor, long-term operating costs, utility retained generation capital and operating costs) Humboldt Bay Unit No. 3 nuclear power plant (decommissioning trust funds and decommissioning costs) and Southern California Edison's San Onofre Units 2 & 3 (utility retained generation capital and operating costs) and Unit 1 nuclear power plant (environmental costs and rate base recovery). I have also testified before the Atomic Safety and Licensing Board of the U.S. Nuclear Regulatory Commission regarding PG&E's financial qualifications requirements for an independent spent fuel storage installation (ISFSI), and was appointed to the National Association of Regulatory Utility Commissioners Staff Subcommittee on Nuclear Issues-Waste Disposal in 2004.
- Q.4 What is the purpose of your testimony?
- A.4 I am responsible for sections A, B, C and E in Exhibit DRA-1.
- Q.5 Does that complete your prepared testimony?
- A.5 Yes, it does.

# QUALIFICATIONS AND PREPARED TESTIMONY OF SCOTT LOGAN

- Q.1 Please state your name and business address.
- A.1 My name is Scott Logan. My business address is 505 Van Ness Avenue, San Francisco, California, 94102.
- Q.2 By whom are you employed and in what capacity?
- A.2 I am employed by the California Public Utilities Commission as Public Utilities Regulatory Analyst V in the Division of Ratepayer Advocates Energy Cost of Service and Natural Gas Branch.
- Q.3 Briefly describe your educational background and work experience.
- A.3 I received a B.A. in Economics from San Francisco State University in 1985. I joined the Division of Ratepayer Advocates of the California Public Utilities Commission in 1986. I have worked on electricity and energy matters since that time, including, but not limited to, electric generation Operation and Maintenance expenses, generation capital expenditures, energy efficiency programs, resource planning, long-term procurement and planning (LTPP), transmission planning, nuclear power plant seismic study costs and project-specific Certificate of Public Convenience and Necessity (CPUC) proceedings. I have testified in numerous Commission proceedings.
- Q.4 What is the purpose of your testimony?
- A.4 I am responsible for section D in Exhibit DRA-1.
- Q.5 Does that complete your prepared testimony?
- A.5 Yes, it does.

#### **Attachments**

- 1. Letter from U.S. Senator Barbara Boxer-Representative Edward Markey to NRC Chairman Allison Macfarlane, February 6, 2013.
- 2. A.10-11-015, Exh. SCE-10, Vol. 1, Table II-2, "Summary of Approved and Forecasted Authorized Estimated Base Revenue Requirement (ABRR) Changes Excluding Amounts Requested In This Proceeding (thousands of dollars).