

**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
Irvine, CA)

**WOMEN'S ENERGY MATTERS
RESPONSE TO THE ORDER INSTITUTING INVESTIGATION
REGARDING SAN ONOFRE NUCLEAR GENERATING STATION
UNITS 2 AND 3**

December 3, 2012

Barbara George, Executive Director
Women's Energy Matters
P.O. Box 548
Fairfax CA 94978
415-755-3147
wem@igc.org

TABLE OF CONTENTS

Introduction..... 3

WEM's recommended additions to the Issues in the Preliminary Scoping..... 4

Issue Discussion: Which proceeding(s) should consider replacement resources?..... 7

 Proposed schedule for developing pilot program for clean replacement resources..... 8

 Issues around replacement resources for SONGS in the current EIPP
 WEM aid the foundation and preferences to replace power from San Onofre..... 10

Issue Discussion: Costs of outreach, events and communications to promote the continued operations of SONGS..... 10

Brief Procedural History of Nuclear Issues in the EIPs..... 11

Conclusion..... 14

**WOMEN'S ENERGY MATTERS
RESPONSE TO THE ORDER INSTITUTING INVESTIGATION
REGARDING SAN ONOFRE NUCLEAR GENERATING STATION
UNITS 2 AND 3**

Women's Energy Matters (WEM) appreciates this opportunity to respond to the Order Instituting Investigation 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. Pursuant to Rule 5.2, we focus on recommendations concerning the issues and schedule included in the preliminary scoping memo.

Introduction

WEM has been a party in Commission proceedings since 2001, working primarily in energy efficiency and procurement proceedings. Our involvement with nuclear issues precedes our work at the Commission; since Fukushima we have been working closely with members of nearby communities on San Onofre issues. *Community members request that the Commission conduct the Prehearing conference, evidentiary hearings, workshops and other public events in local venues, to whatever extent feasible.*

As discussed in the brief "Procedural History of Nuclear Issues in the LTPPs" section below, in May 2011 in the Long-Term Procurement Plans proceedings (R1005006), WEM began urging the Commission to establish an expedited, public planning process for developing clean resources to replace power from nuclear reactors — whenever they are offline for any reason. This issue is currently under consideration in the current LTPP (R1203014).

WEM requests additions and changes to the scope as listed below.¹

*In particular, please see the discussion of Issue 3: **Which proceeding(s) should consider replacement resources for San Onofre?*** Short and medium-term replacement resources (as well as long-term replacement) are already part of the scope for the LTPP (R1203014), and possibly should remain there because a complex set of issues regarding the use of energy efficiency and other preferred resources in procurement is currently

¹ WEM notes that topics do not necessarily need to be explicitly listed in order to be in scope; some may be assumed to be included as part of topics which are listed. However, it may be helpful for the Commission to more clearly state whether certain issues are included.

being litigated in that proceeding. WEM respectfully submits that it would be time consuming and unnecessary to duplicate that process here, and counter-productive, given all the other pressing issues in this investigation.

Alternatively, if short and medium-term replacement resources remain part of this proceeding, WEM asks the Commission to immediately convene a Working Group authorized to develop a pilot program to replace San Onofre's lost power with clean resources, particularly energy efficiency, demand response and distributed generation.² We propose an expedited schedule (below) that would lead to a Pilot program launch by March 1, 2013; an effective program could develop substantial amounts of clean replacement resources by summer 2013. The type of pilot program WEM envisions would have much lower environmental impacts than the replacement resources used in 2012; it would also cost less and produce more jobs.³

Note: the recent energy efficiency decision has already directed SCE and SDG&E to focus deployment of energy efficiency budgets to replace San Onofre.⁴ Substantial additional funds may also be made available from Proposition 39.

WEM's recommended additions to the Issues in the Preliminary Scoping Memo

(Note – our proposed additions and changes are in bold italics)

The OII described the “general scope” as follows: “The general scope of this OII is to review the effect on safe and reliable service at just and reasonable rates on and after January 1, 2012 of the outages at SONGS Units 2 and 3.” However, the costs have now exceeded the amount authorized by the steam generator decision, which would trigger a reasonableness review. Therefore, we recommend adding a clause as follows:

² The Commission lacked a public process for determining replacement resources for San Onofre for 2012. According to official statements by CPUC, CAISO and SCE, and hearing testimony in R1203014, replacement resources were restricted to power from natural gas plants, other “system power,” transmission upgrades, and conservation messages. There was *zero* deployment of energy efficiency, demand response, solar, or other preferred resources to replace San Onofre in 2012.

³ Proposals by Rocky Mountain Institute and Nevada Hydro were already issued to the service list; no doubt others will be forthcoming; these would be included in the Pilot process.

⁴ “In light of the ongoing outage of units at the San Onofre Generating Station, the Southern Orange County region is experiencing supply shortages which demand-side resources can help to mitigate. The Commission has already taken action to increase demand response programs in the region. We expect SCE and SDG&E to focus energy efficiency program deployment in these constrained areas, as appropriate, through targeted outreach, fund -shifting, or other approaches within their existing authority.” D1211015, p. 109.

The general scope of this OII is to review the effect on safe and reliable service at just and reasonable rates on and after January 1, 2012 of the outages at SONGS Units 2 and 3, ***as well as a reasonableness review of the steam generator replacement project, starting in 2004 or earlier — as soon as Southern California Edison (SCE) discovered there was a need for it.***

1. Whether or not rate adjustments should be made; if so, when they should start, the correct amount, and the correct accounting of these adjustments.
2. The reasonableness and prudence of each utility action and expenditure with respect to the steam generator replacement program and subsequent activities related thereto.

2a. Review the reasonableness of the steam generator replacement project, starting with SCE's first indication that it would be needed (i.e. 2004 or earlier) through the end of SONGS' current license.

2b. Compare the costs in 2a, against a replacement portfolio containing at least 50% diverse, clean resources — including energy efficiency, demand response, local solar, and other preferred resources and storage — rather than a portfolio consisting of primarily gas power.

2c. Include the costs and risks to grid reliability of repeated, unplanned SONGS outages; for example FERC's analysis⁵ of the Sept. 8, 2011 incident found that it was SONGS' erroneous response to a system glitch that triggered an extended blackout of Southern California. In view of SONGS' record and future potential to destabilize the grid, should it be restricted to receiving power to maintain its cooling system?

2d. Ratepayer costs and reliability issues associated with the possible long-term or indefinite shutdown of SONGS Units 2 and 3 due to defective steam generators.

See reports by independent nuclear experts David Lochbaum⁶, Arnie Gunderson⁷ and Dan Hirsch.⁸ Also, the NRC needs months to evaluate Edison's restart proposal for Unit 2 and Edison's lack of a proposal for Unit 3 restart.

3. The reasonableness and prudence of each utility action and expenditures in securing energy, capacity and other related services to replace the output of SONGS during the outage.

3a. (See discussion below: Which proceeding(s) should consider short and medium-term replacement resources — the LTPP or this OII?)

⁵ FERC/NERC: Arizona-Southern California Outages on September 8, 2011, Causes and Recommendations
<http://www.ferc.gov/legal/staff-reports/04-27-2012-ferc-nerc-report.pdf>

⁶ Union of Concerned Scientists 10/12/2012 Letter to NRC: <http://sanonofresafety.files.wordpress.com/2012/10/20121012-ucsc-nrc-sg-root-cause-report-comments.pdf>

⁷ San Onofre's Steam Generators Significantly Worse Than All Others Nationwide 7/11/2012
http://fairewinds.org/sites/fairewinds.org/files/reports/Edison_RSGs@SO_US_Worst_2012_-7-11_FairewindsRptFOE.pdf

⁸ Far Outside the Norm – San Onofre Nuclear Plant's Steam Generator Problems, Committee to Bridge the Gap, 9/12/2012
<http://www.committeetobridgethegap.org/pdf/CBG-SanOnofreReport.pdf>

3b. The impacts on “renewables integration” of replacing SONGS with clean resources.

4. The cost-effectiveness of various options for repairing or replacing one or both units of SONGS.

4a. Consider Finding of Fact # 153 in D0512040: “The split shutdown scenario is more costly than shutting both units down when one unit reaches the plugging limit.”

4b. Determine whether a new EIR is necessary prior to further operations of SONGS.

D0512040 noted: “The Final EIR evaluates the environmental impacts of the SGRP against a baseline... The baseline includes SONGS as an operating power plant...”⁹ Since the plant has been shut down for ten months and is expected to be offline for several more months at least, there has been a significant change in the baseline, which may require a new EIR.

4c. Whether or not there is a new EIR, the scope should include the environmental impacts of keeping SONGS running vs. various replacement alternatives (including replacement with preferred resources). This should specifically include pollution of air, water and land, (“once through cooling” issues for nuclear power as well as other OTC plants), and potential seismic testing.¹⁰

4d. (Items 2b-d should also be included here.)

4e. Status and costs of evacuation planning related to an emergency at SONGS, including a beyond-design-basis earthquake.

4f. Costs of earthquake and tsunami studies related to SONGS.

4g. Cost & benefits of shutting down San Onofre.

⁹ D0512040, p. 70, emphasis added.

¹⁰ There should also be an attempt to quantify the costs of “safety, public health, and environmental issues” with or without SONGS, in order to determine cost-effectiveness. The steam generator decision said this was left undone, although it materially impacted the cost-effectiveness of the project — and therefore the decision on whether to go ahead with the project. The decision stated:

CCGTs will produce the emissions the GHG adder is intended to address. However, nuclear power plants have their own safety, public health, and environmental risks and effects. Inclusion of such risks and effects, if they could be quantified, would decrease the cost-effectiveness of the SGRP. However, nothing in the record places a dollar amount on such risks and effects. At the same time, inclusion of the GHG adder would increase the cost-effectiveness of the SGRP. Therefore, we will consider both the GHG adder and the safety, public health, and environmental risks and effects associated with SONGS in our cost-effectiveness evaluation of the SGRP. D0512040, pp. 37-38.

The decision stated further:

The Commission has no power to regulate or condition the SGRP with respect to safety issues, nuclear materials handling and storage issues including facility design. However, the Final EIR analyzes SGRP activities that are exclusively regulated by the federal government to provide full disclosure of potential environmental safety impacts associated with the SGRP. D0512040, p. 70.

Note: This was one of the nuclear issues that was deferred as a result of the settlement in R1005006. D1204046 confirmed that, “issues relating to the need for various generation resources are appropriate to address in an LTPP proceeding, [but] those issues have been deferred as a result of the settlement...”¹¹

4h. Ratepayer costs associated with de-commissioning.

4i. Ratepayer costs associated with long-term storage of nuclear waste at San Onofre.

5. Any additional ratemaking issues associated with the above, including the availability of warranty coverage or insurance for any costs related to the SONGS outage.

5a. The financial condition of Edison International and its subsidiaries.¹²

For example, how does Edison’s condition impact SCE’s ability to procure replacement resources for bundled customers? SCE testimony in the LTPP indicated that it would need to spread the costs to all ratepayers in the system.

5b. The financial impact on SCE if the nuclear plants are shut down.

5c. Whether or not Edison should be allowed to sell or otherwise dispose of SONGS, or Southern California Edison.

5d. The disposition of utility costs associated with un-depreciated ratebase.¹³

5e. The costs of utilities’ outreach, events and communications to promote the continued operations of SONGS. (See discussion below.)

6. The reasonableness and necessity of each SONGS-related operation and maintenance expense, and capital expenditure made, on and after January 1, 2012 reviewed within the context of the facts and circumstances of the extended outages of Units 2 and 3.

Issue 3 discussion: Which proceeding(s) should consider replacement resources?

The OII stated:

While issues regarding long term planning without SONGS will be addressed in the LTPP, issues regarding short and medium term service and reliability should be part of this proceeding. Issues regarding costs for replacement power or

¹¹ D1204046, pp. 68-69.

¹² Edison’s subsidiary Edison Mission Energy (EME) may face bankruptcy this month, according to recent news reports. EME is the owner of Huntington Beach Power Plant Units 3 and 4, which were used for replacement resources in 2012 and are currently slated to become synchronous condensers to provide grid support in the absence of SONGS; however JP Morgan is attempting to block this project.

¹³ This issue would include questions of whether or not Edison used the “stranded assets” funds collected through the CTC after deregulation, to retire its nuclear debt.

expanded demand side management programs in the absence of SONGS should also be discussed as part of this proceeding.¹⁴

WEM respectfully recommends continuing to address all issues of replacement resources in the current LTPP (R1203014) rather than moving short and medium-term replacement issues to this OII and leaving long-term replacement planning in the LTPP, as currently envisioned. (The costs of those replacements should still be tracked in this proceeding.)

Alternatively, this proceeding should immediately establish a Working Group to begin meeting in January, 2013, authorizing it to design, on an expedited basis, a clean energy and grid support pilot program for replacing San Onofre resources.

The Working Group should include staff from CPUC, CAISO, CEC, SCE, SDG&E, parties, members of communities within the “Local Capacity Areas” of both SCE and SDG&E (which are served by SONGS), and other interested members of the public.

The pilot should emphasize procurement of energy efficiency, demand response, distributed generation, other preferred resources, storage and grid enhancements. This pilot should launch by March 1, 2013, in order to begin putting substantial resources in place for summer 2013.

Proposed schedule for developing Pilot Program for Clean Replacement Resources

December 15, 2012	Draft Resolution (or Proposed Decision) establishes Working Group, invites participation, and authorizes the ALJ and Assigned Commissioner to approve the Pilot program by Ruling (in lieu of a Commission decision) ¹⁵
January 1-30, 2013	Working group meets throughout the month
January 5 & 10	Parties’ comments and replies on Draft Resolution/PD
Jan. 24 meeting	Commission votes
February 1, 2013	Working Group issues draft plan for Pilot Program
February 10 & 15	Parties comments and replies on draft plan
Feb. 22, 2013	ALJ/AC Ruling approves Pilot Program
March 1, 2013	Pilot program launch

Issues around replacement resources for SONGS in the current LTPP

¹⁴ OII, p. 14.

¹⁵ Alternatively, a 2nd proposed decision could be issued, resulting in launch about a month later.

The LTPP proceeding is in the midst of considering complex procurement issues, including how to utilize more preferred resources while maintaining reliability — in order to comply with the Commission’s recent finding: “Utility procurement must comply with the Commission’s established loading order.”¹⁶

The CAISO has completed a preliminary study on Local Capacity Requirements without SONGS for summer 2013,¹⁷ and will do more extensive modeling in 2012.

This proceeding should not try to duplicate this process — it would be too burdensome, given all the other issues on the table. On the other hand, it would violate recent decisions to go forward with developing even short or medium-term plans that sidestep the loading order and ignore the methodology being developed to utilize preferred resources.

Most importantly, replacement resources consisting primarily of natural gas, such as those used in 2012, would increase costs, pollution, and GHG emissions. The cost-effectiveness of replacement resources (as opposed to restarting the reactors) would also be negatively impacted.

While the LTPP stands for “long-term procurement plans,” the time frame of procurement is one of the questions on the table in that proceeding. Only large power plants or “central station” renewables require a long time-frame to build; preferred resources can generally be sited and built quickly (as little as a few weeks or months for energy efficiency, demand response and rooftop solar) though many will last for decades. Resources should not be disqualified merely because they take less time; instead, this should be seen as an advantage.

WEM laid the foundation for preferred resources to replace power for San Onofre

In both LTPP proceedings WEM worked to unravel the mythology that only natural gas power plants could replace nuclear power. Removing this false assumption reveals that a mix of truly clean replacement resources can in fact reduce pollution, reduce greenhouse gas emissions — and be more affordable than nuclear power. (See more background on these questions in the brief Procedural History, below.)

¹⁶ D1201033, Finding of Fact 7.

¹⁷ CAISO 2013 LOCAL CAPACITY TECHNICAL ANALYSIS, ADDENDUM TO THE FINAL REPORT AND STUDY RESULTS Absence of San Onofre Nuclear Generating Station (SONGS), August 20, 2012.

Along with other clean energy advocates, WEM identified arbitrary and unnecessary barriers that currently block energy efficiency and most other preferred resources from participating in California utilities' procurement processes, and demonstrated that demand side resources (energy efficiency, demand response and local solar) are allowed to compete in procurement auctions run by independent system operators in many other states.

WEM also offered practical ways to enhance planning and management of a diverse grid with many small resources, which could be accomplished quickly and are not dependent on smart meters or the full rollout of smart grid technology. CAISO recently put forward a proposal similar to ours — to consider all resources on the “supply-side” for the purpose of procurement.¹⁸ CAISO also agreed that more transparency is necessary on the distribution system, where almost all preferred resources are located, because location data is essential. WEM is asking the Commission to order utilities to track the location of all resources in relation to substations. (Currently, preferred resources are simply assumed to exist — somewhere — in the utility's territory. This disqualifies them from providing local capacity).

Issue 5e discussion: Costs of outreach, events and communications to promote the continued operations of SONGS

The investigation should look into outreach, public relations, and “educational” activities related to SCE or SDG&E's nuclear programs, determine which ones are being funded by ratepayers, and to what extent the companies may be using these programs to spread false or misleading information. (Note: the Commission has ruled that misinformation should be prohibited, whether funded by ratepayers or shareholders.)¹⁹

Costs to consider should include:

- Outreach to communities near San Onofre
- Outreach to communities outside the SONGS area which include education about San Onofre or other nuclear issues
- Media relations regarding SONGS and/or other nuclear issues
- Sirens and other warning systems
- Websites including www.SONGScommunity.com

¹⁸ CAISO comments on Storage Workshop

¹⁹ Resolution E-4250.

- Community Events related to the nuclear program, including NRC meetings (including planning, staffing and venue costs; as well as planning and producing booths, displays, literature and merchandise)
- Membership dues and contributions to nuclear industry organizations such as the American Nuclear Society or Nuclear Energy Institute, and other energy organizations with a nuclear component
- Travel and attendance at professional meetings and conferences where nuclear issues are discussed
- Grants to community organizations, businesses, unions and educational institutions, especially those which offer support for continued operations
- School programs conducted by SCE or SDG&E that include information about San Onofre and/or other nuclear issues.

Brief Procedural History of nuclear issues in the LTPPs

On May 23, 2011 — ten weeks after the Fukushima Daiichi disaster began, but several days before the news finally began trickling out that there had been three full meltdowns by mid-March — WEM filed testimony in the Long-Term Procurement Plans (R1005006) recommending that the Commission convene a series of workshops to begin expedited planning for replacement of California’s two nuclear power plants with the cleanest, most affordable resources possible.²⁰

WEM warned that an earthquake, human error, or equipment malfunctions could occur at any moment, without warning, which could take one or both of California’s nuclear power stations offline. We felt it would make sense to begin developing replacement resources while we still had the luxury of planning, rather than waiting until we were in the midst of an emergency — or worse, a catastrophe that no one could afford.

California’s economy is the 7th largest in the world. It needs a reliable energy system, with reasonable, predictable costs, but currently, our electricity infrastructure as well as our economy, population, and food supplies for much of the nation are being held hostage to aging, non-standard, custom-built nuclear technology that is uniquely capable of rendering cities, towns, and large areas of agricultural lands unproductive and uninhabitable for the foreseeable future – as a result of a simple human errors and/or acts of nature that could occur momentarily.

²⁰ WEM’s Testimony: WEM’s Alternate Bundled Procurement Plan for Track II was originally filed May 4, 2011; with approval by the ALJ it was later replaced by the Errata version on May 23, 2011.

As we know from Chernobyl and Fukushima, the costs and other consequences of a major nuclear disaster can destabilize the economy of a leading nation, topple its government, and drastically erode its geopolitical status, in addition to destroying much of the equity of its utility owner-operators, shareholders, banks, former residents, businesses, and government entities. Worse still, the costs cannot even be fully quantified, many months or even decades later, because such accidents do not end — they may flare up years later and develop into even greater catastrophes.

Southern California Edison and Pacific Gas & Electric filed a Motion to Strike most of WEM's testimony.²¹ They argued, among other things, that issues of replacement resources for nuclear power were out of scope. They also objected to our proposals to make energy efficiency more functional as a procurement resource, and to improve interconnection of small renewables.

The utilities' motion was denied in a hearing May 23, 2011. Subsequently, SCE filed testimony in Track 1, with five pages of further objections to WEM's proposals to plan for replacing nukes. The company pointed out: "The impacts of a premature SONGS 2 & 3 shutdown are entirely different than the studies that have been conducted..."²² New CAISO studies would be needed. SCE summarized the problems associated with a premature shutdown, asserting:

The immediate and premature shutdown of SONGS 2 & 3 would directly impact southern California electric system reliability, affect the state's ability to meet its environmental goals, and have a substantial negative effect on electricity and gas prices.

Actions to mitigate the impact of an immediate shutdown of SONGS 2 & 3 would be complex, controversial, environmentally sensitive, and time consuming. In any event, those actions necessary to mitigate the loss of SONGS 2 & 3 could not be implemented quickly enough to offset the immediate adverse impacts of shutting down the units.²³

SCE predicted: "[T]he electric grid would immediately become vulnerable to reliability failures. Preserving the integrity of the electric grid in these conditions would likely

²¹ PG&E and SCE Motion to Strike, May 10, 2011.

²² 7-1-11 SCE Testimony, pp. 36-37 (R1005006) (Exhibit 209).

²³ Ibid, pp. 37-38.

require, in the short term, disconnecting customers by implementing controlled rolling blackouts...²⁴

SCE asserted, “Mitigation of the detrimental impacts of a SONGS 2 & 3 shutdown will take a minimum of 7 years under the current regulatory framework, and will likely take up to 10 years.”²⁵

WEM responded that this is all the more reason to get the planning process started sooner rather than later, because there’s no telling when it might be needed. (*We note that SCE’s predictions did not materialize in 2012.*)

SCE also asserted that closing SONGS would impact the state’s environmental goals. It based its estimates on replacing S.O.’s power with existing gas-fired power plants, and building new gas plants for long-term replacement.²⁶ It predicted these costs would cost much more than SONGS, and more still due to the need for more GHG mitigation.

Finally, SCE claimed that a SONGS shutdown would cause increased natural gas and electricity costs, and “[t]he potential for price spikes due to supply shortages or even market manipulation would be increased absent such a large provider of generation to the market.”²⁷

PG&E’s issued similar claims regarding replacement resources in its Reply Testimony; the ALJ struck parts of PG&E’s testimony dealing with financial projections, stating that there was no foundation for them in the proceeding.

Another party, Jan Reid, proposed that the Commission establish a new proceeding to address the whole range of nuclear issues for both SONGS and Diablo Canyon.

The Commission took no action on WEM or Reid’s proposals in R1005006; instead it approved a settlement and kicked this issue into the next LTPP (R1203014), which opened in March, 2012. However, the issue of Local Capacity for the San Diego area had been broken off into a separate case and CAISO studies of local capacity areas for LA thru San Diego without SONGS were not yet available. Therefore the ALJ ruled

²⁴ Ibid, p. 38.

²⁵ Ibid, p. 39.

²⁶ Ibid, p. 40.

²⁷ Ibid, p. 41.

that the issue of replacement resources for San Onofre for 2013 and beyond would have to wait until Track 2 — which is moving forward this winter and spring.

In the meantime, according to news reports and agency press releases, the CPUC worked behind the scenes on an emergency basis with SCE and SDG&E, the California Independent System Operator (CAISO), the Energy Commission (CEC), the South Coast Air Quality Management District (SCAQMD) and the federal Environmental Protection Agency (EPA) to plan and develop replacement resources for San Onofre for the summer of 2012, should the facility still be offline. This was a largely non-transparent process. The outlines of the plan were approved at the CAISO's March 22, 2012 Board meeting, which offered the only opportunity for public comment.

WEM objected to the secrecy of the process and the complete lack of energy efficiency and most other preferred resources in the replacement resource mix, in our comments at the CAISO Board meeting, as well our comments on the final Proposed Decision in R1005006, and our comments, testimony and briefs in Tracks 1 and 2 in the new LTPP (R1203014).

Conclusion

Women's Energy Matters asks that the Commission include our recommendations in the scope. We look forward to participating in this very important investigation.

Dated: December 3, 2012

Respectfully Submitted,

/s/ Barbara George

Barbara George, Executive Director
Women's Energy Matters
P.O. Box 548
Fairfax CA 94978
415-755-3147
wem@igc.org