

Investigation No.: I.12-10-013
Exhibit No.: SCE-40
Witnesses: P. Hunt
D. Snow
R. Worden



(U 338-E)

***SONGS OII Phase II Testimony Providing
Ratemaking Proposal***

Before the
Public Utilities Commission of the State of California

Rosemead, California
August 14, 2013

NOTE BY RAY LUTZ ON

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I.
INTRODUCTION

The purpose of this testimony is to respond to the issues identified in the Administrative Law Judge's July 1, 2013, ruling (ALJ Ruling) regarding Phase 2 for the California Public Utilities Commission (Commission) Order Instituting Investigation (OII). SCE prepared testimony in Exhibit SCE-36 that provided an accounting of the assets for the San Onofre Nuclear Generating Station (SONGS), and made a proposal regarding which assets should be amortized as retired plant and a proposal to apply the operations and maintenance (O&M) expense savings to SCE's current (and ongoing) Energy Resource and Recovery Account (ERRA) undercollection. In this testimony, SCE makes a specific ratemaking proposal for cost recovery of SONGS unamortized investment, as well as construction work in progress (CWIP) investments and materials and supplies (M&S) inventory. SCE proposes that the amortization commence effective June 1, 2013. SCE proposes to delay amortizing the SONGS nuclear fuel inventory until such time as the balance that can be resold and that which cannot be resold are known. SCE also explains the reasons why cost recovery of SONGS unamortized investment is reasonable under established Commission policy. In particular, SCE has generally proposed the same terms that the Commission approved more than twenty years ago for the retirement and amortization of SONGS Unit 1 investment. While the issues involving SONGS 1 were resolved as part of a settlement with the Division of Ratepayer Advocates (DRA) and San Diego Gas and Electric (SDG&E), which is not strictly precedential, the settlement provides an appropriate template to be applied to the early retirement of SONGS Units 2&3.

SCE also plans to request permission in the very near future to have access to the SONGS decommissioning trusts to defray expenses at SONGS and reduce the cost to current customers.

SCE's proposed amortization over the five-year period beginning on June 1, 2013, compared to currently-authorized levels of revenue requirement is displayed below in Figure I-1, below:

Referenced [SCE-36](#)
"SCE-36 Testimony Of SCE Responding To Certain Issues Identified In July 1, 2013 Ruling"

SCE Proposes

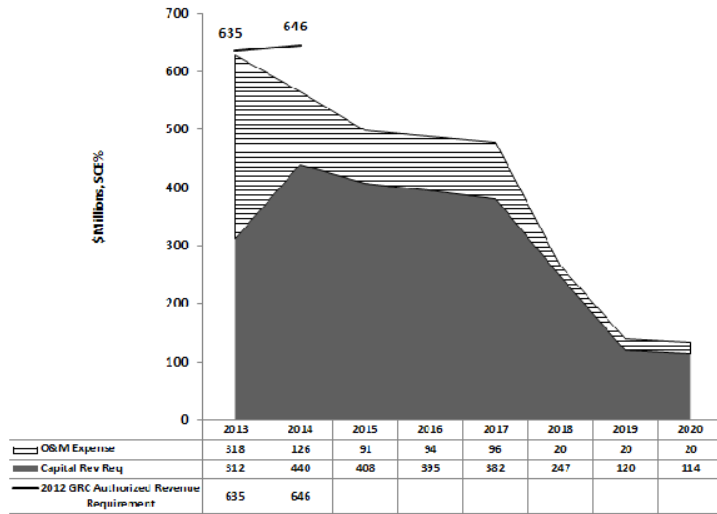
1. full 5-year amortization of all unamortized investments, CWIP and M&S (Materials and Supplies) inventory to start June 1, 2013.
2. Delay amortizing nuclear fuel inventory

"reasonable under established commission policy

"Same terms as in Unit 1"

"SCE plans to request access to decommissioning trusts"

Figure I-1
SONGS 5-Year Amortization
(Revenue Requirement)



26 Over a period of 24 months between January 1, 2013, and December 31, 2014, the difference
 27 between the currently-authorized revenue requirement levels for SONGS would result in a benefit to
 28 SCE customers of \$85 million. Given the variable nature of the capital-related revenue requirement
 29 between January 1, 2013 through December 31, 2014, SCE proposes to apply the savings over the
 30 24-month period which would result in a revenue requirement reduction of \$5 million in 2013 and a
 31 reduction of \$80 million in 2014, with additional reductions in the following three years. SCE has
 32 previously proposed that savings that result from the reduction in SONGS O&M expense be applied
 33 to the undercollection in ERRR. SCE continues to prefer that the expected savings be used to
 34 address the ERRR undercollection.

1 II.

2 **COST RECOVERY OF SONGS REMAINING INVESTMENT IS REASONABLE**

3 A. **Cost Recovery of Capital Investments Is Based Upon The Original Value Of The**
4 **Investment And Cost-of-Service Principles**

5 In California, as in most jurisdictions, rates are determined by state regulatory commissions
6 under cost-of-service principles that evolved from court decisions. The United States Supreme
7 Court's opinions in *Bluefield* and *Hope* are seminal cases in this area.¹ Prior to those decisions, a
8 debate had taken place in the courts and before regulatory commissions over how to value utility
9 assets when setting rates. In *Bluefield*, the Court held that denying utilities a "reasonable return" on
10 the value of useful assets is unconstitutional.² Clarifying this standard, the Court in *Hope* concluded
11 in broad terms that utility revenues must be sufficient to cover both operating expenses and capital
12 costs such as "service on the debt and dividends on the stock."³ *Hope* further held that utility assets
13 should be valued at their original cost, rather than reproduction cost or fair market value, for the
14 purpose of determining a utility's capital costs.⁴ In other words, the fundamental principle of rate
15 regulation is that rates should be designed so as to produce sufficient revenue to enable the utility to
16 recover its prudently incurred costs, including its investments, along with a fair rate of return on its
17 investments. When an asset is retired before it is fully depreciated, it has been this Commission's
18 practice to adjust the rate of return during the amortization of the value of the unrecovered
19 investments.

20 Since this "original cost" standard was established in *Hope*, subsequent proceedings before
21 state regulatory commissions typically focused on determining the reasonable costs and rate of
22 return to be reflected in utility customers' rates. In setting rates, state regulatory commissions must
23 also take into consideration operating expenses the company will incur as well as the amount of
24 capital invested. This regulatory process is referred to as setting the utility's "revenue requirement"
25 – the annual revenues a utility should collect from its customers (including return of capital invested
26 through book depreciation) in order to recover its reasonable costs of providing service and to have

¹ *Bluefield Waterworks & Improvement Co. v. Pub. Serv. Comm'n of W. Va.*, 262 U.S. 679 (1923); *Fed. Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

² *Bluefield*, 262 U.S. at 690.

³ *Hope*, 320 U.S. at 603.

Supreme Court Case "Bluefield Water Works v. Public Service Comm'n - 262 U.S. 679 (1923)" --

<http://supreme.justia.com/cases/federal/us/262/679/case.html>

4. Rates which are not sufficient to yield a reasonable return on the value of the property used at the time it is being used to render the service of the utility to the public are unjust, unreasonable, and confiscatory, and their enforcement deprives the public utility company of its property, in violation of the Fourteenth Amendment.

5. A public utility is entitled to such rates as will permit it to earn a return on the value of the property it employs for the convenience of the public equal to that generally being made at the same time and in the same region of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties, but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures.

Supreme Court Case "PC v. Hope Nat. Gas Co. - 320 U.S. 591 (1944)"

<http://supreme.justia.com/cases/federal/us/320/591/case.html>

We held in the Natural Gas Pipeline Co. case that there was no constitutional requirement "that the owner who embarks in a wasting-asset business of limited life shall receive at the end more than he has put into it." 315 U.S. p. 315 U. S. 593.

1 an opportunity to earn its authorized rate of return. When authorizing a revenue requirement for
2 energy utilities such as SCE, this Commission follows cost-of-service principles that permit the
3 utility to recover all of its reasonable costs and have an opportunity to earn its authorized rate of
4 return on rate base. The Commission has stated:

5 Most of our regulation has been based on cost-of-service principles. Under cost-of-
6 service regulation, the utility is entitled to all of its reasonable costs and expenses, as well
7 as the opportunity to earn a rate of return on the utility's rate base, which is the original
8 cost of the property devoted to public service minus the depreciation.⁵

9 If a state regulatory commission were to deny a utility's request to recover from customers
10 the funds advanced by investors to construct utility assets that have been dedicated to and serve
11 customers, the company's investors would end up unfairly subsidizing customers. That is, recorded
12 depreciation expense would exceed authorized levels and the utility's recorded rate of return would
13 be below the authorized return, compromising the utility's ability to attract capital in the future
14 (which is ultimately in neither the utility's nor its customers' best interests).

15 **B. Investors Advance Funds For Capital Investments And The Funds Are Returned To**
16 **Them Over The Assets' Lives**

17 As is typically the case for large utility capital projects, the funds needed to build and
18 maintain SONGS were advanced by SCE's investors. Under cost-of-service ratemaking principles,
19 such capital investments are added to SCE's rate base when the project enters service and SCE
20 begins collecting an annual depreciation expense through rates, plus a return to compensate investors
21 for advancing their capital, and an allowance or "gross-up" for the taxes paid on the return.⁶
22 Through the depreciation expense collected in rates, SCE's investors are gradually made whole for
23 their original investment over the course of the asset's estimated useful life. As SCE receives these
24 depreciation expenses through rates, the value of the asset in rate base is accordingly reduced such
25 that SCE collects an increasingly smaller return as the asset is depreciated. Once an asset reaches

Continued from the previous page

⁴ *Hope*, 320 U.S. at 603.

⁵ See D. 03-02-035, p. 6.

⁶ In the case of forward test year ratemaking the Commission adopts a forecast of rate base which is used to establish rates in the future. Differences between recorded and forecast or authorized rate base are reconciled in each General Rate Case.

line 5: D0302035

http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/23623.PDF

Entire paragraph states:

In regulating public utilities, we have broad authority to set just and reasonable rates and charges for utilities, as well as determine how costs will be recovered. (See, e.g., Cal. Const., art. XII; Pub. Util. Code, §§451, *et seq.*, 701 & 728.) This broad authority has been liberally construed. (See Consumers Lobby Against Monopolies v. Public Util. Comm'n (1979) 25 Cal.3d 891, 905.) **Most** of our regulation has been based on cost-of-service principles. Under cost-of-service regulation, the utility is entitled to all of its **reasonable costs and expenses**, as well as the opportunity to earn a rate of return on the utility's rate base, which is the **original cost of the property devoted to public service minus the depreciation**. (See Pacific Tel. & Tel Co. v. Public Util. Comm'n (1965) 62 Cal.2d 634, 644.) We determine reasonable depreciation for the utility and have used different methods for determining the amortization periods for depreciation expenses. (Id. at pp. 665-666.)

11. RCL: Company investors understand that there is RISK and that is the reason there is a return under good conditions. When a company makes mistakes, then there may be no return on equity and the equity may be lost.

"Subsidizing customers" is not the case when the plant is abandoned because the customers get no value from the plant. In this case customers are being asked to subsidize a return on investment for mistakes by the company.

1 the end of its estimated useful life, it is expected to have been fully depreciated. At this point, SCE's
2 investors would have recovered their entire original investment, the company stops collecting a
3 depreciation expense for this asset, and because the investors have been returned their funds, the
4 utility also stops earning a return on this asset.

5 The length of time that a given asset is productive may be longer or shorter than its estimated
6 useful life for depreciation purposes. These deviations, however, do not affect the utility's recovery
7 of its investments. When an asset remains productive beyond its anticipated useful life, customers
8 continue to receive the benefit of that asset despite the fact that the asset is no longer in rate base, is
9 no longer being depreciated, and SCE is not earning a return on the asset. Until the asset is retired,
10 customers pay only the operating costs associated with the asset and SCE's investors only earn a
11 return on the incremental capitalized investment in the asset. For example, SCE's hydroelectric
12 generation fleet has a number of operating power plants that are well over 100 years old, such as the
13 Santa Ana River Unit 1, which began service in 1899. SCE has made incremental capital
14 investments over the ensuing decades, but the original investment several decades ago and this
15 facility continues to deliver electricity to SCE's customers at a very low cost. More broadly, SCE's
16 Big Creek hydroelectric facilities are the largest in the company's fleet (totaling more than 1,000
17 megawatts (MW)), and most of those facilities entered service in the early 1900s.

18 On the other side, when an asset is retired before the end of the period used for depreciation
19 purposes, investors should be fully compensated for their original investment even though the asset
20 did not have as long a useful life as initially anticipated. In other words, in exchange for receiving
21 the benefit of assets that are productive after they have been fully depreciated, customers should be
22 responsible for paying the investment cost of assets that are unexpectedly retired before they are
23 fully depreciated.

24 This procedure of setting rates using a depreciation schedule based on anticipated useful life,
25 rather than actual useful life, is reflected in group depreciation. This means that certain classes of
26 assets, or asset components are grouped together and depreciated based on a composite average life,
27 rather than the expected life of any single asset. This accounting method assumes that some assets
28 within the group will have shorter-than-average lives and other assets will have longer-than-average
29 lives. Even large generating assets, for accounting purposes, are comprised of many types of
30 equipment, each with its own depreciable life. For nuclear power plants, the depreciable life is
31 generally tied to the NRC operating license life and the net plant balance is amortized.

For the original construction of Units 2 and 3 without the subsequent RSGP, those units were estimated to have reached their plugging limit at about this time. Therefore, the depreciation of the original plant should be already nearly completed.

This should only be the case if the reason the asset did not live as long as was predicted was not due to poor decision making by the company.

1 **C. Investors Are Entitled To Recovery Of Their Funds Through Customer Rates,**
2 **Regardless Of When Assets Are Retired**

3 Consistent with these principles, the Commission should allow SCE to recover all prudently
4 incurred capital investments in SONGS. To the extent the capital investment is associated with
5 assets that remain used and useful to customers, this recovery should come in the form of
6 depreciation expenses, taxes and authorized rate of return following the Commission's practice
7 during normal operating conditions. For assets that are no longer used and useful to customers, the
8 remaining net investment may earn a lesser return while being amortized on an accelerated basis. In
9 regard to SONGS, Commission precedent and traditional cost-of-service ratemaking weighs in favor
10 of allowing SCE to amortize the capital investments that are no longer used and useful over a 5-year
11 period with a 5.54% rate of return to recover its contractual obligations from debt and preferred
12 financings, as authorized in its capital structure.

13 Once an asset has entered service and becomes useful to customers, investors are entitled to
14 recover their original investment regardless of when the asset is retired. This principle has been
15 applied in multiple Commission decisions, all of which should be distinguished from Commission
16 precedent regarding "abandoned plants." When a plant is in construction, but the project is
17 abandoned before it ever enters service, the Commission applies a standard that is different from its
18 treatment of plants that are put into and dedicated to public service, but then subsequently retired
19 before the end of their anticipated useful lives. In the instance of an abandoned plant, the
20 Commission typically does not allow a utility to recover its stranded capital investments through
21 rates unless the utility can demonstrate that it falls within certain exceptions.⁷ When it comes to rate
22 recovery of capital investments in plants that were placed into service but retired before the end of
23 their anticipated useful lives, however, the Commission regularly allows utilities to collect their
24 remaining undepreciated capital investment through rates. Although the asset is removed from rate
25 base, such that the utility no longer earns its full authorized rate of return on that asset, the utility is
26 typically permitted to amortize the remaining undepreciated plant balance over a set number of years
27 until it has recovered the asset's net investment.

28 Several key decisions demonstrate the Commission's historical ratemaking treatment of such
29 assets. For example, in 1985, the Commission allowed Pacific Gas and Electric Company (PG&E)

⁷ See, e.g., D. 06-11-050, 2006 WL 3739415.

"Prudently Incurred" capital investments.

May earn a lesser return... or no return.

Wants a 5.54% rate of return.

19 in the case of abandoned plants, the Commission typically does not allow a utility to recover its stranded capital investments through rates

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http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/62466.PDF

This doc says:

Further, they state that approval of the agreements should not be construed as a precedent or statement of policy of any kind for or against any party in any current or future proceeding.

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Generally, utility shareholders must bear the full costs of abandoned projects.¹ The Commission has recognized a limited exception to this principle when it has found that ratepayers may be responsible for some of the costs of an abandoned project during times of dramatic and unanticipated change where the utility can demonstrate that it exercised reasonable managerial skill.²

¹ See *Re Pacific Power and Light Company*, (1984), 15 CPUC 2d, 118, 119 (D.84-05-097).

² See *Re Pacific Gas and Electric Company*, (1984) 15 CPUC 2d 123 (D.84-05-100) and D.89-12-057, *Re Pacific Gas and Electric Company* (1989) 34 CPUC 2d 199, 269 (D.89-12-057) and *Re Southern California Edison Company* (1996) 68 CPUC 2d 25, 31 (D.96-09-039, affirmed in D.97-01-047).

1 to recover its remaining capital investment after the utility retired its nuclear power plant at
2 Humboldt Bay based on seismic concerns.⁸ Although PG&E was not permitted to continue earning
3 a return on this investment, the Commission explained that “[i]n the case of a premature retirement,
4 the ratepayer typically still pays for all of the plant’s direct cost even though the plant did not operate
5 as long as was expected.”⁹ More recently, the Commission allowed Golden State Water Company to
6 recover its undepreciated capital investment in the Hill Street water facility, which the utility
7 prematurely retired after receiving water quality violations from the California Department of Public
8 Health.¹⁰

9 The Commission also applied these ratemaking principles in SCE’s most recent General Rate
10 Case (GRC) decision. In that decision, the Commission allowed SCE to recover its capital
11 investments in two different assets that were retired before they were fully depreciated. First, the
12 Commission allowed SCE to recover its entire remaining capital investment in the Mohave
13 Generating Station, a coal plant that SCE had retired before the end of its depreciable life in light of
14 costs and regulatory hurdles related to environmental issues.¹¹ Likewise, the Commission allowed
15 SCE to recover its entire remaining capital investments in electromechanical meter equipment that
16 SCE retired early in order to make way for new meter technology.¹²

17 The Commission’s historical ratemaking treatment of retired assets is consistent with cost-of-
18 service ratemaking and is good policy. Because SCE is required to serve its customers with reliable
19 energy, the company must have access to capital to fund large construction projects. To attract such
20 funding, SCE must be able to provide reasonable assurance that investors will recover their original
21 investment once the project is complete, provided that SCE can demonstrate to the Commission the
22 investment was prudently incurred. If the Commission were to reverse its historical policy of
23 assuring utility rate recovery of capital investments in assets that are retired prior to being fully
24 depreciated based on their expected useful lives, SCE’s ability to attract investors would be
25 undermined. It also would be unfair and asymmetrical, unless the Commission also reversed its

⁸ D. 85-08-046, 18 CPUC 2d 592.

⁹ D. 85-08-046, 18 CPUC 2d 592, 599.

¹⁰ D. 11-09-017, 2011 WL 4425407.

¹¹ See D. 12-11-051, 2012 WL 6641483, at *307.

¹² See D. 12-11-051, 2012 WL 6641483, at *305.

Humbolt Bay Nuclear Plant.

Seismic concerns were not due to mistakes by the company.
[D85-08-046 - not available on line]

[D11-09-017]

From [A.09-08-004](#)

On August 6, 2009, Golden State Watter Company (Golden State) filed this application requesting authorization to implement corrective measures to address water quality problems in its Bay Point Customer Service Area (Bay Point district). Golden State states that this application is in response to (1) a California Public Utilities Commission (Commission or CPUC) directive in its last general rate case (GRC) decision, Decision (D.) 08-01-043, to propose a means to fluoridate its water, and (2) an order from the California Department of Public Health in early 2008 to cease violating the total trihalomethanes (TTHM) Maximum Contaminant Level (MCL) in its drinking water. Recognizing that the method selected to address the TTHM issue in Bay Point district would impact the decision on how to address fluoridation, Golden State combined its analysis of the best options and on June 6, 2009 submitted Advice Letter (AL) 1295-W to the Commission’s Division of Water and Audits (DWA). In its disposition of AL 1295-W, DWA stated that the relief requested went substantially beyond the directives of D.08-01-043 and Golden State must submit its request by formal application.

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[Dr. Brunner] states that in Golden State’s last GRC in 2007, the customers already paid more for their drinking water than did customers in neighboring communities, and Golden State’s drinking water was of poorer quality and contained higher levels of potentially cancer-causing disinfection byproducts. Now that Golden State is connected to the CCWD, it does not have to operate its existing water treatment plant and, because Golden State is instead purchasing treated water from CCWD, there should be economies of scale for both Golden State and CCWD. Due to the high poverty rate in the Bay Point area, Dr. Brunner considers it unjust that Bay Point families should be asked to pay disproportionately more for just bringing their drinking water quality up to the same level that neighboring communities already receive, with no added benefit.

...

Pg 5

DRA recommends the following ratemaking treatment for Hill Street and the Contra Costa agreement. First, the Commission should take the remaining undepreciated balance for Hill Street out of rate base, and amortize this amount in rates over 10 years, because Hill Street is no longer used or useful, provides no benefit to ratepayers, and therefore does not qualify for rate base treatment (including earning a full rate of return).

DRA also argues the Contra Costa agreement is neither a true capitalized lease nor an intangible asset as the Commission has analyzed those concepts in prior decisions. (DRA Opening Brief at 8–9.) Thus, DRA argues the agreement should not be included in rate base but instead should be treated as a rental agreement, and as with any other rental agreement, Golden State should recover the cost as an operating expense. (Id. at 9-10.)

Discussion We will allow Golden State to recover its undepreciated investment in Hill Street and allow as a reasonable carrying cost the company’s incremental cost of debt. We will also allow Golden State to amortize the prepayment of the capacity charge in the water purchase agreement and allow the same carrying cost. Golden State is not entitled to earn an equity return on either transaction.

RCL comment:

The Hill Street Water Facility could have been improved to eliminate the existing contaminants and add fluoridation. However, the cost/benefit analysis weighed toward getting water from the larger district, which it was recently combined with. Thus, there was no decision by Golden State that instigated the closure, no bad decision to install new pumps, for example, that were faulty and thus the closure. This fact should be brought out in cross examination.

We reject Golden State’s rate base proposal for both Hill Street and the Contra Costa agreement because it is unreasonable to burden ratepayers with a rate base treatment for two facilities performing or intended to perform the same function. Hill Street must be abandoned, and while it is reasonable to return the undepreciated balance, it is not reasonable for ratepayers to pay a return on equity as if Hill Street were still used and useful or capable of providing adequate service. Hill Street is neither.

From Wikipedia:

Trihalomethanes are formed as a by-product predominantly when chlorine is used to disinfect water for drinking. They represent one group of chemicals generally referred to as disinfection by-products. They result from the reaction of chlorine and/or bromine with organic matter present in the water being treated. The THMs produced have been associated through epidemiological studies with some adverse health effects. Many governments set limits on the amount permissible in drinking water. However, trihalomethanes are only one group of many hundreds of possible disinfection by-products—the vast majority of which are not monitored—and it has not yet been clearly demonstrated which of these are the most plausible candidate for causation of these health effects. In the United States, the EPA limits the total concentration of the four chief constituents (chloroform, bromoform, bromodichloromethane, and dibromochloromethane), referred to as total trihalomethanes (TTHM), to 80 parts per billion in treated water.

1 long-standing converse policy in order to permit utilities to continue to earn a return on assets that
2 remain in service beyond their expected useful lives (and are therefore fully depreciated). Although
3 the Commission always retains the ability to disallow capital expenditures as a result of its review, it
4 would be unprecedented for the Commission to deny SCE rate-recovery of capital investments in
5 assets that had been placed in service, in the absence of a finding that the investment was imprudent.

6 SCE's investments in SONGS were prudent (and approved by the Commission). When
7 SONGS was constructed, air quality regulation had become increasingly strict, making the continued
8 reliance on oil-fired power plants impractical. The supply of natural gas was thought to be
9 constrained, expanding the Huntington Beach station was being challenged by local government, and
10 load growth in this region was projected to require 6,600 MW of new capacity from 1974 to 1984.
11 More recent investments at SONGS were approved through GRC decisions.

12 **D. Investors Should Be Permitted To Recover All Components Of Their Original**
13 **Investment In SONGS**

14 Consistent with the policy and precedent explained above, the Commission should allow
15 SCE to recover all components of its capital investments in SONGS. This includes capital
16 associated with the Replacement Steam Generators (RSGs) as well as non-RSG investment. It also
17 includes the capital projects that were incomplete when SONGS was shut down and the costs were
18 recorded in CWIP, M&S, and nuclear fuel inventory.

19 **1. SONGS Unamortized Investment As A Result Of SONGS' Retirement**

20 The Commission should allow SCE to recover the portion of SONGS-related
21 unamortized investment due to SONGS' retirement. Capital that is not associated with the RSGs
22 should be recovered through rates for the reasons stated above, and because SONGS Units 2 and 3
23 were dedicated to public service and provided reliable, low-cost energy to southern California for
24 more than thirty years. During its operation, SONGS provided approximately 20% of the power that
25 SCE delivered to its customers. In light of the enormous benefits that SONGS 2 and 3 provided to
26 customers for the three decades before the outages that led to SONGS' retirement, the investors who
27 funded the capital projects that contributed to SONGS operations should be reimbursed for their
28 investment. This portion of the net plant investment has been found reasonable by the Commission
29 in the past, and has accordingly been approved for rate recovery.

30 Likewise, the unamortized investment associated with the RSGs should be recovered
31 through rates. In D.05-12-040, the Commission approved SCE's decision to replace the steam

The failures at San Onofre were unprecedented. Therefore, it is appropriate for the Commission to deny SCE rate-recovery of the capital investment in the SGRP despite no precedent to guide this decision.

Line 6: Out of Scope, this is for Phase 3. We disagree that the investments in SONGS was prudent.

The RSGP investment and the related High Pressure Turbine investment, which relied on the RSGP project to be viable, should both not be recoverable. These are risks that investors take when they make an investment in a company. The company did not use the money wisely, and thus the money is lost, just like in the real world.

The original investment in SONGS 2 & 3 should be already completely depreciated. (Q: what is the remaining undepreciated investment in the original construction of the plant?)

Just because the original construction is largely already recovered and likely not in dispute, this does not mean the investment in the RSGP and the related High Pressure Turbine project should also be recovered.

1 generators and found that \$680 million was a reasonable estimate for this project. Adjusting for
2 inflation, SCE's capital investment in the RSG project was ultimately less than this estimate.
3 Furthermore, the RSG project was completed and entered into service. Units 2 and 3 provided
4 reliable power to customers until the outages began in early 2012. Unit 2 operated from April 13,
5 2010, until January 10, 2012. Unit 3 operated from February 18, 2011, until January 31, 2012. The
6 reasonableness of SCE's management of the RSG project will be examined by the Commission in
7 Phase 3 of this proceeding, and the Commission retains the ability to impose a disallowance if it
8 makes a finding of imprudence in that phase. Subject to this prudence review, however, the
9 Commission should find that SCE's original capital investment in the RSGs should be recovered
10 through rates.

11 **2. Capital Expenditures In CWIP**

12 CWIP investment is essential to operating a generation asset. These funds provided
13 by investors allow a utility to undertake capital projects that improve and support the systems and
14 structures at power plants such as SONGS. For a large, complex asset like SONGS, prudent
15 management of the plant requires a utility to implement diverse upgrades and repairs when needed to
16 support operations. Furthermore, many capital assets are unique to specific generating stations and
17 therefore have a long lead-time for custom design and fabrication.

18 Nuclear generation facilities such as SONGS require a large CWIP balance because
19 many capital projects cannot be placed into service while the plant is operating. One example of
20 such a project that SCE undertook for SONGS was the Unit 2 high-pressure turbine project. SCE
21 could not replace the Unit 2 turbines while SONGS was operating. Because SCE must wait until
22 scheduled outages to implement such projects, the CWIP balance accumulates while the asset is
23 being designed and constructed. A disallowance of capital expenditures in CWIP would thus
24 eliminate recovery of funds associated with projects that were being designed, fabricated and built
25 on a schedule with a target install date at the next refueling outage for SONGS in January, 2012.

26 Given the nature of the outages that led to the decision to retire the Units, SCE could not have
27 known in advance that some of the planned projects would not go into service.

28 Some portion of the capital expenditures in CWIP are associated with projects that
29 are necessary to support current operations or will be necessary to support the transition to
30 decommissioning in the future. Because SCE is not cancelling these projects, a disallowance of this
31 capital based on the SONGS outages would be unwarranted. The ratemaking for this capital should

Units 2 and 3 did NOT provide reliable service. Their design was defective from the day they were installed, and it was just a matter of time before they would fail. Thus, this plant was never operating reliably after the SGRP and suffered unprecedented wear in the SG tubes in both units.

Furthermore, SCE decided to shut down the two units rather than attempt to restart them after discovering that the design errors were so significant that there was no other feasible course of action.

Therefore, the SGRP and related High Pressure Turbine project (which was never put into service) should be treated in the same manner as an abandoned plant that was never put into service.

Commission policy in this regard is that:

Generally, utility shareholders must bear the full costs of abandoned projects.³

It is unfortunate that the Commission apparently has a set policy that if an asset is put into service and the utility decide to pull the plug for any reason after only a small fraction of the intended life of the investment, that the utility then assumes it can recover its entire investment plus a return on equity. This will encourage a rush to start plants, like San Onofre, which the utility may actually know is faulty, so they can run for a while, such that then they can claim that the entire investment should be returned. This is bad policy.

The useful life of the Steam Generators was supposed to be 40 years. They lasted for an average of about 18 months, thus providing about 3.75% of their intended life.

At present, the utility is trying to be compensated for every aspect of the SGRP despite the project being an utter failure. Assuming they may have known the faulty nature of the replacement steam generators, they may have made a calculated risk to install them anyway, run them for as long as they could, and when they failed, argue that they should not only get all the investment returned to them and their shareholders from the ratepayer, but all the other costs associated with rushing these defective SGs into server.

Even if SCE did not know of the failed design of the RSGs, they acted imprudently in their effort to "supercharge" the design so they would produce more steam and thus the HPT project would be viable. Therefore, the HPT project in CWIP should not be recovered from rate base.

³ See *Re Pacific Power and Light Company*, (1984), 15 CPUC 2d, 118, 119 (D.84-05-097).

1 be unaffected by the SONGS outages: the capital should remain in CWIP until the project is placed
2 into service, at which point it should be added to rate base where it should be eligible to earn SCE's
3 full authorized return.¹³

4 Different ratemaking treatment is warranted for capital in CWIP associated with
5 projects that were cancelled as a result of SCE's decision to retire SONGS. This capital should be
6 treated identically to the SONGS-related capital that is removed from rate base as a result of
7 SONGS' retirement. In other words, the capital should be amortized over a 5-year period and should
8 earn a debt-like return of 5.54%. These projects represent reasonable expenditures to support and
9 improve an asset that was in service for the benefit of customers. The associated capital
10 expenditures were reasonable investments when they were made and under traditional cost-of-
11 service principles their recovery should be permitted. As explained above, traditional cost-of-service
12 principles would dictate that capital investments in retired assets should be recovered by the utility
13 through rates. The CWIP associated with the cancelled SONGS projects is not "abandoned plant" as
14 previously discussed, but rather this investment is another category of SONGS costs that should be
15 recovered through rates. SONGS was an operating plant for many years, and projects needed to
16 support its anticipated future operation should be recoverable to the same extent as completed
17 projects. Had the costs of the cancelled projects been categorized as expense (rather than capital),
18 they would have been recovered as they were incurred. Accounting for such projects as capital
19 should not alter the eligibility of the costs to be recovered in rates.

20 **3. SCE Should Be Permitted To Recover Its SONGS-Related M&S Inventory**

21 In order to support normal operations, utilities must maintain an inventory of M&S.
22 Among other things, this inventory includes tools and components such as valves, switches, and
23 cables. Maintaining this inventory is critical for providing reliable electrical service, as the amount
24 of time required to procure such materials and supplies varies widely. For example, if SCE did not
25 have any valves on-hand, and instead procured new valves only when an old valve failed in service,
26 there would be constant gaps in service while SCE waited for the new valves. This is particularly
27 true for components that are unique to SONGS and must be fabricated accordingly.

¹³ If SCE has future capital expenditures and they are recorded in CWIP, SCE would treat them routinely, accrue Allowance for Funds Used During Construction (AFUDC), and close to rate base when they enter service. SCE would make an evidentiary showing in its GRC.

Now that the plant is moving toward decommissioning, the projects in CWIP should be moved to the decommissioning funds accounts.

Those projects are part of an abandoned plant, and should not provide any return on equity.

No return on equity should be provided.

Traditional cost of service principles do not apply to this unprecedented retirement of the plant an abandonment of the replacement steam generators due to faulty design errors.

This is in fact more like an abandoned plant than one that is being systematically retired.

1 SCE earns its full authorized rate of return on the value of its M&S inventory, and
2 this value is not depreciated ratably over time. Rather, for purposes of establishing an authorized
3 revenue requirement, the Commission assumes the inventory is replenished when a component is
4 placed into service. When forecasting M&S inventory in normal circumstances, the estimate is
5 developed by examining the annual recorded inventory levels compared to the recorded annual
6 capital expenditures. The value of the M&S inventory is adjusted during each GRC to reflect the
7 actual value of the assets in inventory and forecast over the GRC cycle relying upon the ratio of
8 capital expenditures to annual M&S inventories. Once an asset is used, it is either added to rate base
9 or expensed, as appropriate.

10 Because certain operations (*i.e.*, maintaining used fuel cooling) are still ongoing at
11 SONGS, and because decommissioning activities will eventually begin, some portion of SCE's
12 SONGS-related M&S inventory will remain necessary for operations and decommissioning.
13 However, SCE is not yet in a position to know what portion of the inventory will be necessary to
14 support the used and useful rate base, what can be shifted to support other SCE operations, and what
15 can be salvaged or sold. The current M&S inventory did not become entirely obsolete as a result of
16 the permanent retirement of SONGS. Salvage of any M&S inventory should offset the cost of
17 amortization of net investment to benefit SCE customers.

18 Because of the retirement of SONGS Units 2 and 3 and the amortization of the
19 remaining net investment, SCE proposes to begin amortizing the M&S inventory in 2015. In other
20 words, M&S would continue as a fixed balance in rate base until 2015, and then the inventory would
21 be amortized over the same period as the "used and useful" rate base, with the revenue requirement
22 offset by any proceeds from salvage.

23 As time passes, the size of SONGS-related M&S inventory is expected to shrink as
24 fewer maintenance activities are performed on the site and fewer capital projects are needed to
25 support operations and decommissioning.

26 **4. SCE Should Be Permitted To Recover Its Remaining Nuclear Fuel Inventory**
27 **When SCE Learns What Portion Can Be Monetized Through Resale, and What**
28 **Portion Should Be Amortized.**

29 SCE's nuclear fuel inventory includes both "pre-core" and "in-core" fuel. The pre-
30 core fuel is at various stages in the supply chain prior to being loaded into the reactor, while in-core
31 fuel is at the SONGS site and was at one point in the reactor. SCE has notified suppliers to

M&S inventory that is no longer needed should be booked as a loss if it cannot be salvaged or sold.

When will SCE be "in a position to know" what portion of the inventory will be needed to support the decommissioning activities?

So SCE is not going to lift a finger to try to minimize the amount of M&S inventory, and they want to amortize the entire inventory starting in 2015.

1 terminate contracts and minimize costs to the extent the contracts permit. SCE will attempt to sell
2 fuel whenever it is appropriate to the extent allowed under the terms of SCE's contracts. Although
3 in-core nuclear fuel typically is thought to be unsalable, as it has been processed to make it unique to
4 the particular plant at which it is being used, SCE is consulting with various vendors and experts
5 regarding potential innovations which would allow the company to prepare certain in-core inventory
6 for sale. SCE is also seeking to minimize future obligations to purchase nuclear fuel, which may
7 result in cancellation charges, which should be recovered in rates as well.

8 SCE intends to try to resell its entire nuclear fuel inventory for two reasons. First, the
9 proceeds of any sale would be credited against SCE's nuclear fuel balance and would reduce costs to
10 SCE's customers. Second, selling nuclear fuel would significantly reduce future costs by alleviating
11 some of SCE's responsibilities to store this fuel.

12 SCE's investment in its nuclear fuel inventory was a necessary cost of providing
13 service to customers. The process of procuring nuclear fuel is unlike other forms of fuel
14 procurement. Because nuclear fuel must go through various stages of processing (e.g., mining,
15 enrichment, conversion, and fabrication) before it is ready to be inserted into the core, there is a long
16 lead-time for fuel procurement, and SCE was required to make outlays at various stages along the
17 way. These obligations were reasonable at the time they were made, which was before the outages.
18 Consistent with cost-of-service principles, the Commission should allow SCE to recover its original
19 investment in this inventory. The Commission should also allow SCE to recover any cancellation
20 charges that result from prudently-cancelled nuclear fuel contracts, as these costs are likewise
21 reasonable costs of providing service to customers.

22 However, because SCE does not yet know what portion of the fuel can be sold in the
23 resale market, SCE proposes to delay amortization of the inventory until an ultimate disposition of
24 the fuel is known. In the meantime, SCE proposes to continue recovering the fuel's carrying cost
25 through customer rates.

26 **E. The Amortization Of SONGS Net Plant Balance Should Commence June 1, 2013**

27 Leading up to SCE's announcement of the retirement of SONGS Units 2 & 3 on June 7,
28 2013, SCE reasonably expected that the plant would return to service. SCE's capital investments in
29 SONGS should therefore remain in rate base until the nearest month-end before this decision was
30 made, or June 1, 2013. From June 1, 2013, forward, capital investment associated with the portion
31 of SONGS that is no longer used and useful should be amortized over 5 years.

What obligations exist to purchase nuclear fuel?
Since this is like an "abandoned plant" shareholders should cover the
cancellation charges.

How much fuel is in the "nuclear fuel inventory?"

Nuclear fuel should be immediately removed from rates.

SCE knew that the plant could not reasonably return to service as soon as the
root-cause analysis showed that the RSGs were severely misdesigned. The
delay until June 1 is unbelievable. The utility is required to notify the
Commission when the plant is not being used for nine months. Any
amortization should start no later than that date.

No part of SONGS is used and useful. It is all "dead wood" which is moving
toward the decommissioning process. Therefore, all assets should be
converted to assets within the decommissioning fund.

1 Although section 455.5 of the Public Utilities Code allows the Commission to remove from
2 rate base the portion of a facility that is no longer "in service," this does not mandate or justify
3 removing SONGS from rate base from the dates the outages began or even from the day the
4 Commission's investigation in this proceeding began. Forced outages are an unavoidable, regular
5 occurrence at all types of power plants, and a utility's efforts to understand the causes of outages and
6 restore the plant to service is a normal cost-of-service activity.

7 The policy reflected in section 455.5 is that a plant should not remain in rates indefinitely
8 following an outage. The statute directs the Commission to examine the situation after nine months.
9 But the statute does not state that the Commission must remove an asset from rate base nine months
10 after an outage begins. It leaves that determination to the judgment of the Commission. Nor has the
11 Commission mandated that assets be removed from rate base nine months after an outage begins in
12 past cases under section 455.5.¹⁴ Instead, the proper standard for determining when the Commission
13 can order that an asset should be removed from rate base is a date after the Commission institutes an
14 OII and after it becomes clear that the asset will not return to service. Until that time, the utility
15 should recover the costs of its efforts to work toward a return to service. If the rule were otherwise,
16 and the asset removed from rate base automatically nine months after an outage, then it would
17 sanction a policy that could ultimately deprive customers of an operating asset returning to service at
18 cost-of-service pricing. This outcome would harm customers.

19 Until June of 2013, when SCE decided to permanently retire SONGS, the company diligently
20 sought to understand the causes of the undue tube wear in Units 2 and 3 and to return the plant to
21 operation. Because SCE reasonably expected the plant to return to service during this time period,
22 the portion of rate base that is attributable to the retired aspects of SONGS should remain in rate
23 base until May 31, 2013.

 To comply with the scoping memo issued on July 1, 2013, SCE has also prepared an
amortization schedule beginning effective November 1, 2012. This amortization schedule is
contained in Appendix A of this testimony.

¹⁴ D. 85-08-046, 18 CPUC 2d 592.

SCE likely knew that the replacement steam generators were faulty prior to installation. They gambled that they could get these dangerous SGs working long enough to qualify to allow the investment to be recovered, plus all the other costs related to shutdown.

Because of the unprecedented misdesign of these plants and that SCE likely knew they would not last, the SGRP should be deemed unreasonable and the plant abandoned when the old steam generators were removed.

We can't continue to allow these utilities to continue to make bad decisions and put the population at severe risk just because they know they will make more money if they can have a failed project than a good one.

The Commission should remove the plant from ratebase retroactive to the installation of the defective steam generators.

Absolutely not true. SCE knew that Unit 3 would not return to service in this timeframe, and after the root cause analysis showed that there was such severe problems in the design, any prudent manager would have concluded that the plant would not ever restart. The statements that it would restart were simply to allow this argument to be made for recovery from ratebase.

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III.

SONGS INVESTMENT SHOULD EARN A RETURN DURING THE AMORTIZATION PERIOD

A. General Principles

SCE's SONGS investment is financed by a combination of common equity, preferred equity, and long-term debt. This is true whether or not the Commission has determined that SONGS investment is used and useful and whether or not SONGS has been retired from service. Particularly with respect to preferred equity and long-term debt, these classes of SCE's financial liabilities are contractual obligations that SCE must honor regardless of the status of its assets for ratemaking purposes.

B. SONGS Investment Determined To Be Used And Useful Should Earn SCE's Authorized Rate of Return Until Retired

SONGS investment that is determined to continue to be used and useful by the Commission should continue to earn SCE's authorized rate of return until it is retired, as it is no different than any other rate base asset employed by SCE in the provision of service to its customers.

C. SONGS Investment In Retired Plant Should Earn A Reduced Rate Of Return

SCE recognizes that since SONGS 2 and 3 were retired effective June 7, 2013, a considerable portion of SCE's investment in SONGS 2 and 3 is no longer "used and useful" in the traditional sense, and is also no longer required to maintain the facility in a safe condition. It is reasonable for the Commission to reduce SCE's authorized return on retired SONGS investment to reflect the accelerated amortization of SCE's retired investment that SCE proposes in the next section of my testimony. SCE specifically proposes to use the SONGS 1 settlement rate of return method, which results in a rate of return of 5.54%.

The 5.54% rate of return is calculated as shown in the following Table III-1. In the SONGS 1 settlement, the rate of return was fixed at SCE's authorized cost of debt at that time, 8.98%.¹⁵

¹⁵ D.92-08-036, 45 CPUC 2d 274, 276. At that time, SCE's authorized cost of debt exceeded its authorized cost of preferred equity, which was 7.60%. (D.91-11-059, 42 CPUC 2d 105, 120).

The plant is not "used and useful" unless it is generating power.

**Table III-1
Calculation of Rate of Return**

Component	Capital Ratio in Authorized Capital Structure	Share of Fixed-Cost Financing	Cost Factor	Weighted Cost
Long-Term Debt	43.00%	82.69%	5.49%	4.54%
Preferred Equity	9.00%	17.31%	5.79%	1.00%
Total Rate of Return				5.54%

D. Amortization Period

SCE's investment in SONGS 2 and 3 currently has a nine-year service life for ratemaking purposes, consistent with the original license expiration in 2022. However, it will be beneficial to SCE's customers for the Commission to accelerate the amortization of SCE's investment in retired SONGS 2 and 3 plant so that the associated capital can be redeployed in other parts of SCE's business to provide service to SCE's customers. SCE proposes a five-year amortization period. SCE estimates that this period will accomplish the amortization of SCE's investment in SONGS retired plant without a rate increase above current rates for SCE's customers.

E. The Rate of Return For Nuclear Fuel

SCE is currently authorized to include the full cost of financing nuclear fuel inventories in rates, subject to the condition that such financing be only debt. For the past several years, SCE has financed nuclear fuel inventories using a combination of a five-year floating rate debt and short-term debt. In Mr. Worden's testimony above, SCE has proposed that SCE defer amortization of the fuel inventory until such time as the ultimate disposition of the inventory is known. The portion that SCE is unable to monetize would be amortized and collected from SCE customers. However, SCE would not need to seek cost recovery from its customers for the portion sold and monetized. SCE proposes that its authorized return for nuclear fuel inventory until such time as the disposition is known be the cost of five-year debt, fixed at the beginning on June 1, 2013.

Accelerated amortization is one incentive for utilities to make bad decisions, and then get their return faster. Since this shutdown was due to design errors and other mistakes inside SCE and its suppliers, the ratebase should not be asked to subsidize these errors. The RSGP and HPT projects and all costs related to determining the reason for failure should be booked as losses to shareholders.

However, since shareholders do not hold stock in this specific asset, they will likely see no loss, but reduced profits, and this is as it should be to discourage SCE management from making similar bad decisions in the future.

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IV.

REVENUE REQUIREMENT FOR SONGS INVESTMENT

The purpose of this chapter is to present SCE’s estimated SONGS 2&3-related revenue requirement through 2020 based on the investment amortization and rates of return on rate base proposals set forth above. In addition, SCE presents a ratemaking proposal that will ensure recovery of the remaining SONGS 2&3 revenue requirements authorized by the Commission based on the proposals in this proceeding, and upcoming GRCs.

Table IV-2 shows SCE’s estimated annual SONGS-related O&M, capital revenue requirement and fuel inventory carrying costs through 2020.

Table IV-2
SONGS 2&3 Revenue Requirement Retired Plant-
Five Year Amortization
(Smillions)

	2013			2014	2015	2016	2017	2018	2019	2020
	Jan-May 1/	Jun-Dec 1/	Total							
1. Capital Rev Requirements 2/										
2. Used and Useful 3/	17	82	99	117	129	122	115	127	120	114
3. Retired 4/	112	142	254	291	276	261	247	98	-	-
4. Subtotal	129	224	353	408	405	383	362	225	120	114
5. Used and Useful Rate Base 5/	406	425	425	421	371	313	256	189	113	38
6. Retired Rate Base 5/	727	733	733	647	471	304	140	20	-	-
7. O&M			318	126	91	94	96	20	20	20
8. Fuel Inventory Carrying Cost 6/	0	1	1	2	3	12	20	22	-	-
9. Average 24-month Savings 7/	-	-	(42)	42	-	-	-	-	-	-
10. Total	129	225	630	578	499	489	478	267	140	134

1/ Annual revenue requirements prorated by month, so January through May is 5/12ths of currently effective annual revenue requirement. June through December is prorated 7/12ths of a revised annual revenue requirement.

2/ Includes depreciation, return on rate base, property and income taxes.

3/ Used and Useful plant is amortized over the license life (i.e. 2022), including materials and supplies (with a delayed start date for M&S amortization of January 1, 2015) through 2017 at full rate of return. After 2017, the remaining plant (i.e. rate base) earns a reduced rate of return and is amortized over three years.

4/ Retired amounts Includes Steam Generator Replacement, Removal, and Disposal and assumes a reduced rate of return. The five year amortization is June 2013 through May 2018.

5/ Rate base amounts in the January through May 2013 column reflect the ending balance as of May 31, 2013. Rate base amounts in the total column for 2013 reflect the weighted average rate base at December 31, 2013.

6/ Carrying cost using short-term borrowing rate applied to the average SONGS fuel inventory balance. See Chapter III for more detail.

7/ Average savings incurred from January 1, 2013 through December 31, 2014 - See explanation in Chapter 1.

Fuel Inventory Carrying Cost	960		1,658	2,893	11,473	19,285	21,523	-	-
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1 **A. Capital Revenue Requirements**

2 As discussed in the previous chapters, SCE is proposing to recover its remaining investment
3 in SONGS, including the RSG investment. The unamortized investment has been categorized into a
4 “used and useful” category and a “retired” category. Based on the investment amortization and rates
5 of return on rate base (i.e., revenue requirement “parameters”) proposals supported in the previous

1 chapters, the associated revenue requirements for each of those two categories are shown on Line
2 Nos. 2 and 3 in Table IV-2 above.

3 The capital revenue requirements include the recovery of the investment (*i.e.*, amortization of
4 remaining investment), a return on the investment, and property and income taxes. The revenue
5 requirement shown on Line No. 2, associated with the used and useful investment, including M&S,
6 continues to initially be amortized over the license life, or through 2022.¹⁶ However, beginning in
7 2018, the remaining investment as of December 31, 2017 is amortized over three years such that the
8 remaining investment is recovered by December 31, 2020. SCE is also proposing to initially use its
9 currently-authorized full rate of return (*i.e.*, 7.90%) to calculate the return on rate base. Beginning in
10 2018 when the shorter three-year amortization begins, SCE is proposing to use a reduced rate of
11 return of 5.54% because SCE's expectation is by that date most of SONGS' assets would be retired.
12 By 2018, the used and useful category of investment converts to retired investment, and therefore
13 SCE has proposed a shorter amortization and reduced rate of return. As of December 31, 2020 this
14 investment will be fully recovered.

15 The revenue requirement for the investment that is retired as of May 31, 2013 shown on Line
16 No. 3 of Table IV-2, assumes a five-year amortization, from June 2013 through May 2018. This
17 category of investment includes the RSG investment. The "retired" revenue requirement is
18 calculated using a rate of return of 5.54% throughout the five-year amortization period. As of May
19 31, 2018, this investment will be fully recovered.

20 **B. Ratemaking for Recovery of SONGS-Related Capital Investment**

21 SCE requests to recover its remaining SONGS investment based on the parameters (*i.e.*,
22 amortization and rates of return) adopted in this phase of the proceeding. Currently, the SONGS-
23 related capital revenue requirement is being recovered in two ways. First the non-RSG revenue
24 requirement is authorized in SCE's GRC, most recently authorized subject to refund in SCE's 2012
25 GRC.¹⁷ The Commission has established the Base Revenue Requirement Balancing Account
26 (BRRBA) as the ratemaking mechanism to ensure that SCE recovers no more and no less than its
27 authorized revenue requirement. In D.05-12-040 the Commission established the ratemaking for

¹⁶ Amortization of Materials and Supplies does not begin until January 1, 2015.

¹⁷ D.12-11-051.

1 recovery of the RSG investment.¹⁸ Specifically, SCE recovers its actual RSG-related revenue
2 requirement through the BRRBA as well, after first being recorded in separate RSG-related
3 balancing accounts. In summary, the non-RSG related revenue requirement has been authorized in
4 GRCs and the actual SGR-related revenue requirement is recovered, subject to an after-the-fact
5 reasonableness review that will take place in Phase 3 of this proceeding.

6 SCE is proposing to continue to use the BRRBA as the ratemaking mechanism to ensure
7 SCE recovers the SONGS-related revenue requirements, including the RSG-related investment,
8 calculated based on the parameters adopted in this phase of the OII. Upon a final Commission
9 decision in this phase of the OII, SCE proposes to make correcting entries to the BRRBA to reflect
10 the change in the SONGS-related revenue requirement such that in 2013 the revenue requirements
11 recorded in the BRRBA reflect the newly-adopted SONGS-related revenue requirement parameters
12 (*i.e.*, amortization and rates of return on rate base). Differences between the revised “authorized”
13 revenue requirements and the previously-recorded revenue requirements will be recorded in the
14 BRRBA. Any under- or over-collection (*i.e.*, differences between what has been reflected in
15 customer rates and the recorded revenue requirements) will be reflected in the next rate change
16 where the balance recorded in the BRRBA is reflected in rates. If a final Commission decision is not
17 issued this year, SCE will make two correcting entries in the BRRBA: first, an entry as discussed
18 above to correct the 2013 revenue requirements; and a second correcting entry to true-up the 2014
19 revenue requirements.

20 SCE will be filing its 2015 GRC in the fourth quarter of this year. Upon a final Commission
21 decision in this phase of OII, SCE will update its 2015 GRC revenue requirement to reflect the
22 SONGS-related revenue requirement parameters adopted herein.¹⁹ Therefore, beginning in 2015
23 SCE’s GRC revenue requirement will be calculated consistent with the parameters adopted in this
24 proceeding. SCE will continue to use the BRRBA to ensure that it recovers no more and no less
25 than its SONGS-related revenue requirements.

26 SCE proposes to file an advice letter on November 1st of each year to support the SONGS-
27 related revenue requirement calculated consistent with the parameters authorized in this phase of the

¹⁸ See SCE-5 and SCE-6 for details on the SGR ratemaking.

¹⁹ SCE will also incorporate the adopted SONGS-related revenue requirement parameters in SCE’s 2018 GRC.

1 OII for the subsequent year.²⁰ The revenue requirements contained in these advice letters will also
2 be the revenue requirements included in rates for the subsequent year.

3 **C. O&M**

4 Although SCE is not requesting recovery of O&M expenses in this phase of this proceeding,
5 SCE is presenting an estimate of the O&M that is expected to be incurred through 2020. As shown
6 on Line No. 5 of Table IV-2, the O&M expenses will decrease significantly very quickly.²¹ As
7 discussed in more detail in the previous chapters, it is SCE's expectation that much of this O&M will
8 be able to be funded through the Nuclear Decommissioning Trust (ND Trust) and will not have to be
9 recovered from current customers.

10 SCE has a proposal pending in this proceeding to use O&M savings (*i.e.*, actual O&M
11 expenses below the O&M provisionally authorized in the 2012 GRC) to offset the existing and
12 continuing undercollection in SCE's ERRA balancing account (which tracks the costs of fuel and
13 purchased power).²² SCE also anticipates requesting the Commission's interim authority to begin to
14 access a portion of funds from the ND Trust. At that time, SCE will also be requesting to establish a
15 new two-way balancing account that will be used to track actual SONGS O&M expenses in excess
16 of amounts available to be funded from the ND Trust. Any O&M not recovered from the trust will
17 be compared with the O&M funding provisionally authorized in SCE's GRC. It should be noted that
18 SCE plans to first determine if future O&M expenses can be recovered from the ND Trust, and only
19 the remaining recorded O&M expenses not eligible for recovery from the trust should be recovered
20 from current SCE customers.

21 **D. Fuel Inventory Carrying Costs**

22 As discussed in Chapters II and III above, SCE is requesting to recover the actual fuel
23 carrying cost of the SONGS-related fuel inventory balance calculated based on the company's short-
24 term borrowing rate. SCE has estimated the fuel inventory carrying costs on Line No. 6 of Table IV-

²⁰ This is consistent with the process for implementing the SGR revenue requirement today, and the GRC attrition year revenue requirements.

²¹ The O&M amounts show in Table IV-2 are estimates. SCE will be filing its 2015 GRC in the fourth quarter of this year and will have better estimates of the SONGS-related O&M for 2015 through 2017 at that time. In addition, access to the ND Trust could cause these estimates to change.

²² See exhibit SCE-36.

1 2.²³ SCE requests to modify Preliminary Statement, Part YY, BRRBA to allow for the monthly fuel
2 carrying cost entry.

3 **E. Elimination of Existing Ratemaking Accounts**

4 If the Commission adopts SCE's ratemaking proposal in this phase of the proceeding, SCE
5 requests to eliminate both the SONGS Memorandum Account (SONGSMA) and the SONGS Outage
6 Memorandum Account (SONGSOMA).

7 Pursuant to D.12-11-051, SCE established Preliminary Statement, Part N.55, SONGSMA, to
8 track SONGS expenses starting on January 1, 2012. The purpose of the SONGSMA is to track, at
9 the 100% level, post-2011 SONGS Units 2&3-related direct capital expenditures, O&M expenses,
10 costs savings from scheduled personnel reductions, and maintenance and refueling outage
11 expenses until the units are restarted. Because SCE has decided to retire SONGS, it is now clear that
12 the units are not going to be restarted. However, if the Commission adopts the ratemaking proposals
13 presented herein, and resolves the issues in Phase 1 of this proceeding, the SONGSMA can be
14 eliminated.

15 On November 1, 2012, the Commission issued this OII to, among other things, consolidate
16 and consider issues raised by the extended outages of SONGS Units 2&3. As part of the
17 investigation, the Commission required SCE to establish a memorandum account to track all
18 SONGS-related costs incurred on an after January 1, 2012 (*i.e.* the SONGSOMA). Similar to the
19 SONGSMA, the SONGSOMA is no longer necessary because the proposed ratemaking requested
20 herein and the ratemaking that will be established for the SONGS-related O&M and for the recovery
21 of SCE's remaining SONGS-related investment will accomplish the intended goals of both
22 balancing accounts. Accordingly, SCE requests to eliminate both the SONGSMA and the
23 SONGSOMA.

²³ Although the Fuel Inventory Carrying cost shown on Table IV-2 for 2013 shows "zero", the amount is just less than one million so, it rounds to zero. The actual amount is estimated to be \$0.4 million.

November 1, 2012 SONGS 2&3

Millions of Dollars

5 Year Amortization - Reduced Rate of Return 5.54% on Retired and RSG plant

	Nov - Dec									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Used & Useful	4	108	111	123	119	115	126	120	114	
Retired Plant	15	203	157	152	120	108				
SGRP										
Replacement	16	137	131	125	118	94				
Removal & Disposal	(2)	19	20	19	18	14				
	14	156	151	144	136	108				
Total Rev Req	32	467	419	419	375	330	126	120	114	
O&M		318	126	91	94	96	20	20	20	
Total	32	785	545	510	469	426	146	140	134	

Notes:

1. Used and useful plant is at full rate of return and amortized over the license life, including materials & supplies through 2017. Materials & supplies are included in rate base and amortization begins January 2015. After 2017, the plant is earning a reduced rate of return where equity return is equal to the weighted average of long term debt & preferred equity rates and being amortized

2. Retired plant and SGRP are at a reduced rate of return where equity return is equal to the weighted average of long term debt & preferred equity rates and are amortized over five years. Nuclear fuel is earning short term debt rate with no amortization.

1 A. The purpose of my testimony in this proceeding is to sponsor portions of Exhibit SCE-40,
2 entitled *SONGS OII Phase II Testimony Providing Ratemaking Proposal*, as identified in the
3 Table of Contents thereto.

4 Q. Was this material prepared by you or under your supervision?

5 A. Yes, it was.

6 Q. Insofar as this material is factual in nature, do you believe it to be correct?

7 A. Yes, I do.

8 Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best
9 judgment?

10 A. Yes, it does.

11 Q. Does this conclude your qualifications and prepared testimony?

12 A. Yes, it does.

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1 **SOUTHERN CALIFORNIA EDISON COMPANY**
2 **QUALIFICATIONS AND PREPARED TESTIMONY**
3 **OF DOUGLAS A. SNOW**

4 Q. Please state your name and business address for the record.

5 A. My name is Douglas A. Snow, and my business address is 8631 Rush Street, Rosemead,
6 California 91770.

7 Q. Briefly describe your present responsibilities at the Southern California Edison Company (SCE).

8 A. I am the Director of CPUC Revenue Requirements and Tariffs in SCE's Regulatory Operations
9 Department. As such, I am responsible for the recovery of SCE's authorized revenue
10 requirements and oversee the operation of various balancing and memorandum accounts,
11 including the recovery of the balances in those accounts, and I am responsible for managing the
12 implementation of SCE's tariffs and advice letters.

13 Q. Briefly describe your educational and professional background.

14 A. I graduated from Texas A&M University in May of 1982 with a Bachelor of Science Degree in
15 Industrial Engineering. In June of 1982, I went to work for Southwestern Public Service
16 Company (SPS) in west Texas. While there, I was a supervisory engineer, responsible for
17 revenue requirement calculations and rate design for both retail and resale customers. I filed
18 testimony on behalf of SPS before the Texas Public Utility Commission and the Federal Energy
19 Regulatory Commission. In November of 1993, I began to work for the Southern California
20 Edison Company as a financial analyst in the FERC Pricing section in the RP&A Department.
21 While working in the FERC section, I was responsible for the rate design for SCE's requirements
22 sales for resale, Wheeling Access Charges, and wholesale Distribution Access Charges. In
23 March 1998, I became a supervisor in the Revenue Requirements division of RP&A, responsible
24 for supervising a group of analysts that oversee the forecasting and recording entries associated
25 with all Commission regulatory mechanisms. In December 2001, I was promoted to the position
26 of manager in the Revenue Requirements division of RP&A. In August 2006, I was promoted to
27 Manager of CPUC Revenue Requirements, and in March 2013, I became the Director of CPUC

1 Revenue Requirements and Tariffs taking on the additional responsibilities for managing SCE's
2 tariffs. I have previously testified before the California Public Utilities Commission.

3 Q. What is the purpose of your testimony in this proceeding?

4 A. The purpose of my testimony in this proceeding is to sponsor portions of Exhibit SCE-40,
5 entitled *SONGS OII Phase II Testimony Providing Ratemaking Proposal*, as identified in the
6 Table of Contents thereto.

7 Q. Was this material prepared by you or under your supervision?

8 A. Yes, it was.

9 Q. Insofar as this material is factual in nature, do you believe it to be correct?

10 A. Yes, I do.

11 Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best
12 judgment?

13 A. Yes, it does.

14 Q. Does this conclude your qualifications and prepared testimony?

15 A. Yes, it does.

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**SOUTHERN CALIFORNIA EDISON COMPANY
QUALIFICATIONS AND PREPARED TESTIMONY
OF RUSSELL G. WORDEN**

Q. Please state your name and business address for the record.

A. My name is Russell G. Worden, and my business address is 2244 Walnut Grove Avenue, Rosemead, California 91770.

Q. Briefly describe your present responsibilities at the Southern California Edison Company.

A. I am presently a Director of Regulatory Affairs in Edison's External Relations Department and the case manager for SCE in the current Commission investigation of the outages at the San Onofre Nuclear Generating Station (SONGS), investigation (I.) 12-10-013. My responsibilities have previously included management of SCE's 2003, 2006, 2009 and 2012 general rate cases. I was responsible for negotiating the phase of Edison's Test Year 1995 General Rate Case Settlement relating to the rate recovery of SONGS Units 2&3. Also, I was responsible for negotiating the settlement that modified Edison's ratemaking for the Palo Verde Nuclear Generating Station.

Q. Briefly describe your educational and professional background.

A. I received an Associate of Arts degree from Cabrillo College, in Aptos, California in 1974. I graduated from San Francisco State University in 1977 with a Bachelor of Arts degree in Political Science, cum laude. After college, I joined the Washington, D.C. staff of U.S. Senator Richard Stone (D-FL) where I served as a Legislative Aide until December 1980. From January 1981 until March 1985, I served as a Legislative Assistant to then Congressman Ron Wyden (D-OR). In March 1985, I joined the Washington, D.C. office of Southern California Edison as a Governmental Affairs Assistant, and in May 1988, I transferred to Edison's Revenue Requirements Department. I transferred to my current position in August 2012.

Q. What is the purpose of your testimony in this proceeding?

1 A. The purpose of my testimony in this proceeding is to sponsor portions of Exhibit SCE-40,
2 entitled *SONGS OII Phase II Testimony Providing Ratemaking Proposal*, as identified in the
3 Table of Contents thereto.

4 Q. Was this material prepared by you or under your supervision?

5 A. Yes, it was.

6 Q. Insofar as this material is factual in nature, do you believe it to be correct?

7 A. Yes, I do.

8 Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best
9 judgment?

10 A. Yes, it does.

11 Q. Does this conclude your qualifications and prepared testimony?

12 A. Yes, it does.

1 A. The purpose of my testimony in this proceeding is to sponsor portions of Exhibit SCE-40,
2 entitled *SONGS OII Phase II Testimony Providing Ratemaking Proposal*, as identified in the
3 Table of Contents thereto.

4 Q. Was this material prepared by you or under your supervision?

5 A. Yes, it was.

6 Q. Insofar as this material is factual in nature, do you believe it to be correct?

7 A. Yes, I do.

8 Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best
9 judgment?

10 A. Yes, it does.

11 Q. Does this conclude your qualifications and prepared testimony?

12 A. Yes, it does.