Application No.:	A.09-04-___
Exhibit No.:	Utilities-3
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SDG&E Witnesses:	Brian M. Nelson Randall G. Rose Michelle A. Somerville Michael L. DeMarco

Southern California Edison Company

(U 338-E)

San Diego Gas & Electric Company

(U 902-E)

TESTIMONY IN SUPPORT OF 2009 NUCLEAR DECOMMISSIONING COST TRIENNIAL JOINT APPLICATION

Before the

Public Utilities Commission of the State of California

Rosemead, California
April 3, 2009

Testimony In Support Of Nuclear Decommissioning Cost Triennial Joint Application

Table Of Contents

Testimony In Support Of Nuclear Decommissioning Cost Triennial Joint Application

Table Of Contents

Testimony In Support Of Nuclear Decommissioning Cost Triennial Joint Application

Table Of Contents

Testimony In Support Of Nuclear Decommissioning Cost Triennial Joint Application

Table Of Contents

I.

AMOUNT OF DECOMMISSIONING TRUST FUND CONTRIBUTIONS

A. Introduction

The purpose of this testimony is to develop updated contribution amounts to be made to nuclear decommissioning trust funds for San Onofre Nuclear Generating Station Units Nos. 2 and 3 (SONGS 2&3) and Palo Verde Nuclear Generating Station Unit Nos. 1, 2, and 3 (Palo Verde). These contributions are intended to provide financial assurance of the availability of funds for Southern California Edison Company's (SCE's) and San Diego Gas & Electric Company's (SDG&E's) share of costs required to decommission SCE's and SDG&E's nuclear power plants in the future.

In OII-86, Decision (D.) 87-05-062, the California Public Utilities Commission (Commission) adopted externally managed trust funds as the vehicles for accruing funds for the ultimate decommissioning of the nuclear power plants owned by California utilities. In response to D.87-05-062, SCE and SDG&E each established two master trust agreements for SCE's and SDG&E's respective shares of nuclear decommissioning costs. SCE and SDG&E each established one trust agreement as the vehicle to hold the decommissioning funds for contributions which qualify for an income tax deduction under Section 468A of the Internal Revenue Code (Qualified Trust).[1] SCE and SDG&E have also each established one nonqualified master trust agreement designed to hold the remaining decommissioning funds in trusts that cannot be held in Qualified Trusts. Within each master trust, SCE and SDG&E each established unit accounts to maintain separate trust accounts for each of its nuclear units. The Commission approved SCE's and SDG&E's trust agreements and, following Internal Revenue Service approval of SCE's and SDG&E's respective Schedule of Ruling Amounts, the trusts were initially funded in February 1988.

[1] 26 U.S.C. 468A.

B. Present Funding Levels For SONGS And Palo Verde

1. SCE

The current authorized annual contribution to SCE's SONGS 2&3 and Palo Verde nuclear decommissioning trust is $46.448 million.[2] The market value of SCE's nuclear decommissioning trust funds for SONGS 2&3 and Palo Verde is $2.275 billion as of January 31, 2009. This equates to a net liquidation value of $2.253 billion after adjusting the market value for estimated taxes that will be paid on net investment gains, when the securities are sold in the future. After accounting for these taxes, the remaining $2.253 billion will be available to fund decommissioning activities.

2. SDG&E

The current authorized annual contribution to SDG&E's SONGS Units 2 & 3 nuclear decommissioning trusts is $9.350 million[3]. The market value of SDG&E's nuclear decommissioning trust funds for SONGS Units 2 & 3 was $468.798 million as of January 31, 2009. This equates to a net liquidation value of $459.599 million after adjusting the market value for estimated taxes that will be paid on net investment gains when the securities are sold in the future. After accounting for these taxes, the remaining $459.599 million would be available to fund decommissioning activities.

C. Proposed Funding Levels For SONGS And Palo Verde

1. SCE

a) SONGS 1

SCE's SONGS 1 nuclear decommissioning trust funds, plus the expected tax benefits associated with SCE's Nonqualified Trusts for SONGS 1, contain sufficient monies to complete SCE's share of SONGS 1 decommissioning based on the updated SONGS 1 Cost Estimate of $147.5 million (80% share, 2008$) as provided in this Application for remaining decommissioning work.

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[2] Technically, the $46.448 million amount is the revenue requirement associated with the annual contribution. In D.07-01-003, the Commission approved an annual revenue requirement for SCE of $42.739 million. In D.06-11-025, the Commission approved an additional revenue requirement for SCE related to SCE's acquisition of the City of Anaheim's ownership interest in SONGS 2&3. The total annual revenue requirement of $46.448 million was established in Advice 2092-E, which became effective on January 11, 2007.

[3] In D.07-01-003, the Commission approved an annual contributions to the nuclear decommissioning trusts in the amount of $9.350 million for SDG&E's interest in SONGS Units 2 & 3.

Therefore, SCE proposes annual future contributions of zero during the next NDCTP cycle for SCE's portion of SONGS 1 decommissioning.

b) SONGS 2 & 3, Palo Verde 1, 2 & 3

SCE's proposed annual contribution is $66.430 million, beginning on January 1, 2011.[4] The current annual contribution set in D.07-01-003 and D.06-11-025 was based on SCE's trust fund balances as of May 31, 2006 and economic and financial projections that were available in March 2006. Other parts of this exhibit explain why the current annual contribution must be increased and why that increase is reasonable.

2. SDG&E

a) SONGS Unit 1

SDG&E's SONGS Unit 1 nuclear decommissioning trust funds, including the tax benefits associated with SDG&E's Nonqualified Trusts for SONGS Unit 1, are expected to provide sufficient funding to complete SDG&E's share of SONGS Unit 1 decommissioning based on the updated SONGS 1 Cost Estimate of $36.873 million (20 percent share, 2008$) as provided in this Application for remaining decommissioning work related to that unit. Therefore, SDG&E proposes annual future contributions of zero during the next NDCTP cycle for SDG&E's portion of SONGS Unit 1 decommissioning.

b) SONGS Units 2 & 3

SDG&E is requesting that the Commission approve annual contributions in the amount of $15.284 million to SDG&E's nuclear decommissioning trusts for its twenty percent (20%) ownership share of SONGS Units 2 & 3. This represents an increase of 63.4 percent above the contribution levels last authorized by the Commission. Given the trust accounts' balances as of January 31, 2009 and the expected returns presented within this Application, SDG&E believes the proposed level of annual contributions is necessary to support the full and reasonable costs of decommissioning SONGS Units 2 & 3.

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4 *See, infra,* Tables I-5 and I-6 for revenue requirement.

D. Why Proposed Funding Levels Have Increased

1. SCE

The following table summarizes the differences between the economic and financial assumptions that support SCE's present annual contribution and SCE's proposed annual contribution.

Table I-1
Economic and Financial Assumptions
2005 NDCTP Versus 2009 NDCTP

	2005 NDCTP (Authorized)	**2009 NDCTP**
SONGS 2&3 Cost (100%)	$3,131 million (2004 $)	$3,659 million (2008 $)
Palo Verde Cost (SCE Share, 15.8%)	$696 million (2004 $)	$709 million (2007 $)
Escalation		
Non-Burial Escalation:		
Labor	3.39%	3.13%
Material, Equipment, Other	2.00%	1.98%
Low Level Waste Burial		
Current Cost per Cubic Foot	$248 (2004$)	$62 (2008$, Class A Bulk LLRW)
Escalation Rate	7.5%	6.7%
Qualified Trusts Rate Of Return		
Stocks, Pre-Tax	8.49%	8.06%
Bonds, Pre-Tax (Municipal bonds)	5.05%	4.69%
Total, After-Tax		
Pre-Shutdown (60% stocks/40% bonds), SONGS 2&3/Palo Verde	5.76%/5.74%	5.30%/5.29%
Post-Shutdown (100% Bonds)	4.40%	4.13%
SONGS 2 & 3 Contribution Period	Through 2022	Through 2022
Palo Verde Contribution Period (SCE)	Through 2024-2027	Through 2024-2027

As can be seen in the table, costs for SONGS 2&3 and Palo Verde decommissioning are higher in this application than those assumed in 2005 NDCTP application, while escalation rate and return assumptions are lower.

Another factor affecting SCE's proposed contribution is the current level of SCE's trust fund balances. As noted above, SCE's current annual contribution is based on SCE's trust fund balances as of May 31, 2006. On that day, the Standard & Poor's (S&P) stock index closed at 1,270.09. Beginning in October 2007, equity markets in the United States and other countries experienced the worst bear market in over 70 years. On January 30, 2009, the S&P 500 stock index stood at 825.88, and it continued to fall in February 2009 and early March 2009. Indeed, the S&P 500 stock index has reached levels not seen since early 1997. Because of this poor equity market performance since October 2007, SCE's trust funds have been unable to match the long-run equity return projections approved by the Commission in D.07-01-003. Had SCE's trust funds achieved the earned returns that were approved by the Commission in D.07-01-003, their value on January 31, 2009 would have been over $700 million higher than the actual value on that date.

2. SDG&E

The funding levels presented in this application have increased compared to the last NDCTP filing due to changes in the cost estimate for decommissioning activities, lower than anticipated trust account balances, and changes in the forecasted trust returns based on economic and capital market conditions.

SDG&E has reviewed the cost estimates developed by ABZ, Incorporated, for SONGS Units 2 & 3. SDG&E concluded that ABZ, Incorporated, is a firm with appropriate expertise in the field of decommissioning nuclear power facilities and therefore accepts their estimates as being reasonable. The cost estimate increased by 16.9 percent in nominal terms and 6.3 percent in real terms relative to the study prepared by ABZ, Incorporated, for the 2005 NDCTP.

Adverse market conditions experienced since the last triennial proceeding have resulted in lower-than-anticipated nuclear decommissioning trust account balances as of January 31, 2009. For the three years ending December 31, 2008, the S&P 500 produced a cumulative return of negative 8.4 percent, versus an expected cumulative return of positive 26.5 percent.[5] Additionally, future return forecasts have been revised downward by Global Insight relative to their forecasts provided and used in the prior 2005 proceeding. Table I-2 summarizes the differences in return forecasts that contribute to the need for increased contributions.

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[5] Based on the 2005 NDCTP annual equity return estimate of 8.54 percent, compounded annually and adjusted for taxes on dividends.

Table I-2
Differences in Return Forecasts

Pre-Tax	**2005 NDCTP**	**2009 NDCTP**
S&P 500	8.54	8.13
10 Year Treasury	5.69	5.34
AAA Muni Bond	5.77	5.36
After-Tax (Qualified Trust)		
Pre-Shutdown (60% stocks/40% bonds	5.76	5.28
Post-Shutdown (100% bonds)	4.40	4.11

As a result, there exists a shortfall of trust assets based on current nuclear decommissioning cost estimates, current trust account balances, economic forecasts received from Global Insight, and current nuclear decommissioning trust contributions. The increase in contributions proposed by SDG&E will resolve this shortfall.

E. Why The Commission Should Adopt The Proposed Annual Contributions

1. SCE

The Commission should adopt SCE's proposed annual contribution because it is based on the latest available decommissioning cost estimates, the current value of SCE's trust fund balances, and reasonable projections of cost escalation and trust fund asset returns.

SCE's proposed contribution level is projected to achieve full funding of projected decommissioning costs by the expected end of plant operation for SONGS 2&3 in 2022 and Palo Verde 1, 2, and 3 in 2024, 2026 and 2027, respectively. This will ensure that on a forecast basis, (1) the beneficiaries of plant operation will fund nuclear plant decommissioning; and (2) future ratepayers will not bear a disproportionate share of these costs. Of course, no projection is perfect. There is always a risk that actual outcomes will be worse for ratepayers than projected outcomes. Because of this risk, it is prudent to make conservative assumptions regarding trust fund asset returns (adopting lower projected returns) and cost escalation (adopting higher projected escalation rates) and to adopt cost contingencies.

SCE's projected contribution is lower than some previous historical contribution levels, as can be seen in the following table.

Table I-3
Historical Trust Fund Contributions

CPUC Decision(s)	Annual Trust Fund Contribution ($ Millions)	Annual Revenue Requirement ($ Millions)
D.07-01-003 and D.06-11-025	45.904	46.488
D.03-10-015	31.530*	32.848
D.99-06-007 (Settlement)	24.488	25.000
D.96-01-011	99.822	104.426**
D.91-12-076	96.325	NA
D.87-05-062	97.104	NA

* This amount does not appear in the decision, but can be found in the spreadsheet that was used to estimate the annual trust fund contribution and revenue requirement.

** This amount appears in D.99-06-007, listed as the revenue requirement corresponding to the $99.822 million contribution.

From 1987 through 1999, SCE's annual trust fund contribution was nearly $100 million per year, and would exceed $100 million by a considerable amount if converted to 2009 dollars.[6] By this standard, SCE's proposed annual contribution is quite reasonable.

2. SDG&E

The Commission should adopt SDG&E's proposed level of annual contributions so as to reflect the latest available decommissioning cost estimates, the current value of SDG&E's trust fund balances, and reasonable projections of trust fund asset returns. SDG&E's proposed level of annual contributions is projected to achieve full funding of estimated decommissioning costs assumed for the year 2022 when the SONGS Units 2 and 3 operating licenses expire. Since the inception of the nuclear decommissioning trust, contribution amounts have changed in response to the latest available data and

[6] The most general measure of price inflation for the United States economy is the Gross Domestic Product Price Index. In 1987, this index stood at 73.204; in the fourth quarter of 2008, it reached 123.284, a 68 percent increase. If SCE's 1987 annual trust fund contribution had increased at the same rate, it would be $163.534 million today.

estimates. Contributions must be adjusted through time in order to keep the funded levels on track to meet the full costs of plant decommissioning. This avoids the long-term risk that insufficient funds will be collected to cover the reasonable costs of decommissioning the units. For these reasons, SDG&E is requesting an increase in contributions for each unit as listed in Table I-4:

Table I-4
SDG&E Annual Contributions

	Current Amount	Requested Amount		Increase
Unit 2	$5.290 million	$9.095 million		71.93%
Unit 3	$4.060 million	$6.189 million		52.44%

SDG&E also proposes that the Commission permit the updating of SDG&E's trust fund balances after the close of hearings in this application and, concomitantly, the updating of its required contribution levels so that the Commission will have the latest information available as it renders its decision in this matter.

F. <u>The Commission Should Include an Updating of Trust Fund Amounts in This Application</u>

1. <u>General Policy</u>

In Section I.D, SCE explained that one of the factors affecting SCE's proposed contribution is the current level of SCE's trust fund balances. With the recent gyrations in the financial markets, SCE's trust fund balances have been volatile.

SCE calculates its trust fund balances at the end of each month. SCE proposes that the Commission permit the updating of SCE's trust fund balances after the close of hearings in this Application and update its required contribution levels accordingly, so that the Commission can have the latest information available as it decides SCE's application. This is similar to the updating for interest rates that occurs in cost of capital applications.[7] Such an update will allow the Commission to take

[7] The Rate Case Plan provides for a late-filed exhibit at day 122 in annual cost of capital applications. D.89-01-040, Appendix C, 1989 Cal. PUC LEXIS 37, *88. In SCE's 2008 cost of capital application, A.07-05-003, this exhibit was filed on September 27, 2007.

account of unexpected changes in trust fund returns after the application is filed. The settlement agreement in SCE's last NDCTP application included a trust fund update.[8]

2. Tax Concerns

Another reason for the Commission to include updated trust fund amounts relates to the Internal Revenue Code and the limitation placed on taxpayer's ability to contribute and deduct amounts into Qualified Trusts for tax return purposes. Internal Revenue Code Section 468A(b), as amended by the Energy Policy Act of 2005, states that the deductible "amount which a taxpayer may pay into the Fund for any taxable year shall not exceed the ruling amount applicable to such taxable year." To receive the "ruling amount," a taxpayer must file a request with the National Office of the Internal Revenue Service, and receive a "Schedule of Ruling Amounts," which stipulates allowable annual amounts that may be contributed and deducted for tax return purposes. Thus, it is important that the annual contribution amounts authorized by the Commission are equal to or less than the Schedule of Ruling Amounts approved by the Internal Revenue Service. Otherwise, any portion of the Commission-approved annual contribution amount that exceeds the Internal Revenue Service-approved Schedule of Ruling Amounts cannot be contributed into the Qualified Trust nor deducted for tax return purposes.

As part of the ruling-request process, the Internal Revenue Service typically requires taxpayers to re-run the annual contribution requirement amount based on applicable Commission-approved factors and the most recent actual (not estimated) year-end Qualified Trust fund balance amounts. Thus, having the Commission approve annual contribution amounts based on updated trust fund balances that are consistent with fund balances as reflected in the ruling request would provide better symmetry between Commission-approved contribution amounts and IRS-approved contribution amounts, and would avoid the adverse situation of having IRS-approved contribution amounts that are less than the Commission-approved amounts (which would limit the ability to contribute and deduct the entire Commission-approved decommissioning amounts into Qualified Trusts).

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[8] D.07-01-003, Appendix B, Section 4.1.1.1. May 31, 2006 decommissioning trust fund liquidation values were specified. SCE's application was based on decommissioning trust fund liquidation values as of July 31, 2005.

G. Amount Necessary To Decommission

1. SCE

As discussed in Exhibit No. SCE-2, SCE developed nuclear decommissioning costs for SONGS 2&3 based on site-specific studies performed by ABZ, Inc.[9] As also discussed in Exhibit No. SCE-2, SCE developed nuclear decommissioning costs for Palo Verde based on site-specific studies performed by TLG.[10] The workpapers to Exhibit No. SCE-2 contain SCE's cost studies for SONGS 2&3 and Palo Verde. As discussed in Exhibit No. SCE-2, the decommissioning cost estimates include the most recent information regarding decommissioning activities as well as appropriate contingency. Exhibit No. SCE-1 contains an estimate of the cost of remaining work to decommission SONGS 1.

SCE's share of the cost of remaining work to decommission SONGS 1 is currently estimated to be $147.5 million (2008 dollars). SCE's share of the cost to decommission SONGS 2&3 is currently estimated to be $2,792.6 million (2008 dollars), and SCE's share of the cost to decommission Palo Verde is currently estimated to be $708.7 million (2007 dollars).

2. SDG&E

Based upon the latest cost estimates provided by ABZ, Incorporated, the cost to decommission SDG&E's twenty-percent (20%) share of SONGS Units 2 & 3 is currently estimated to be $731.758 million in 2008 dollars. The cost to decommission SDG&E's share of SONGS Units 2 & 3, escalated to 2022 dollars, is $1.184 billion. The net liquidation value[11] of SDG&E's nuclear decommissioning trust funds for SONGS Units 2 & 3 as of January 31, 2009, is $459.599 million. The goal of achieving $1.184 billion in trust assets can only be reached by making adequate annual contributions to trust principal and prudently managing the trust investments.

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[9] See Exhibit SCE-2, p. 5.

[10] See Exhibit SCE-2, p. 6.

[11] The net liquidation value of the trust assets is derived by adjusting the market value of assets in the trust to reflect estimated taxes that will be paid when the securities are sold in the future.

H. Funds Should Not Be Transferred From The SONGS 1 Decommissioning Trusts To The SONGS 2&3 Trusts At This Time

1. SCE

As noted above in section C.1.a, SCE proposes no contribution to the SONGS 1 decommissioning trusts during this NDCTP cycle. While the current funds remaining in the SONGS 1 trusts, when combined with retention of tax benefits associated with expenditures from the SONGS 1 non-qualified trust appear at this time to be sufficient to finance the remainder of SONGS 1 decommissioning activity, SONGS 1 decommissioning activity is not projected to be completed until the year 2053. In fact, according to current projections, more than one-third of the remaining SONGS 1 decommissioning cost in 2008 dollars is projected to be incurred in 2052 and 2053. This means that SONGS 1 decommissioning costs have a substantial "tail" that is subject to unforeseen changes that may result from changes in decommissioning regulations and practice in the intervening period. Thus, the final decommissioning cost of SONGS 1 is characterized by substantial uncertainty. For this reason, it is prudent to retain the current SONGS 1 trust fund balances and not transfer them at this time.

In addition, any transfer of funds from the SONGS 1 Qualified Trust for the purpose of decommissioning another unit would result in the disqualification of that trust for tax purposes. This is because funds that are in a Qualified Trust can be used only for three specific purposes: (1) satisfying the contributor's decommissioning liability associated with the related nuclear power plant, (2) paying administrative costs in connection with the operation of the fund, and (3) making investments. Disqualification of the Trust would cause SCE and SDG&E to recognize the entire value of the decommissioning trust in their taxable income, as well as prevent the future funding of decommissioning liability through a qualified trust for tax return purposes.

II.

FINANCIAL ASSUMPTIONS AND RATE OF RETURN

A. Introduction

To estimate the contributions needed to fully fund decommissioning of the SONGS 2&3 and Palo Verde nuclear units, annual escalation rates or annual escalation indexes are used to convert the decommissioning cost estimates in base year dollars to decommissioning cost estimates in future-year dollars. In this proceeding, the Utilities have calculated separate escalation rates for: (1) labor, (2) the combined category of material, equipment, and other, and (3) low level radioactive waste (LLRW) burial. These escalation rates are described in more detail below.

The Utilities based their projections for labor escalation, and for material, equipment, and other escalation, upon projections provided by the IHS Global Insight economic forecasting service. HIS Global Insight is a reliable, independent and accurate source for escalation forecasts and return forecasts. The Utilities subscribe to certain IHS Global Insight products and have used IHS Global Insight projections in numerous proceedings before the Commission. The particular IHS Global Insight projection used to develop this application was the December 2008 projection. This projection spans the period from 2009 through 2038.

1. Escalation

a) Labor Escalation

To project labor escalation, the Utilities used the IHS Global Insight projection of the Employment Cost Index for total compensation, private sector.[12] One important feature of the Employment Cost Index for this application is that it covers both direct compensation (wages and salaries) and the cost of employee benefits provided by employers. Other potential labor escalation indexes, such as the Consumer Price Index, do not share this important attribute. (The Consumer Price

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[12] This index is published by the Bureau of Labor Statistics, U.S. Department of Labor. The IHS Global Insight acronym for this index is JECIWSSP.

Index measures escalation of goods and services that consumers purchase directly, not the escalation in their compensation or income.)

b) Material, Equipment, And Other Escalation

To escalate costs from base-year dollars to future-year dollars for the categories of material, equipment, and other, the Utilities constructed an index that is a weighted average of Producer Price Indexes for fuels and related products and power (WPI05), metals and metal products (WPI10), construction machinery and equipment (WPU112), general purpose machinery and equipment (WPU114), and the chain-weighted price index for the Gross Domestic Product (GDP; the acronym for the associated price index is JPGDP).[13] The Utilities directly used WPI05, WPI10, and JPGDP projections by IHS Global Insight. To project values for WPU112 and WPU114, the Utilities constructed an econometric forecasting model that related the historical changes in WPU112 and WPU114 to JPGDP, the chain-weighted price index for the Gross Domestic Product. The Utilities then applied these historical relationships (WPU112 to JPGDP and WPU114 to JPGDP) to the IHS Global Insight projection of JPGDP to produce a projection of WPU112 and WPU114.

The Utilities calculated weighted averages of these indexes for SONGS 2&3 and the Palo Verde units. The weights were based upon an investigation of materials and equipment used by SCE in the decommissioning of SONGS 1. The following weights were used:

[13] IHS Global Insight's acronyms for these indexes begin with the letters "WPI", not "PPI". In the Bureau of Labor Statistics Internet web site, the historical values for these indexes begin with the letters "WPU."

Table II-5
Weights For Indexes In Material, Equipment, And Other Escalation Rates

Index	Description	Weight
WPI05	Producer price index, fuels and related products and power	0.5%
WPI10	Producer price index, metals and metal products	1.9%
WPU112	Producer price index, construction machinery and equipment	42.4%
WPU114	Producer price index, general purpose machinery and equipment	6.2%
JPGDP	Chain-weighted price index for Gross Domestic Product	49.1%

c) Burial Escalation

(1) SCE

SCE has examined historical trends in burial cost escalation factors published by the Nuclear Regulatory Commission (NRC) to project LLRW burial cost escalation.[14] The NRC report is written to be an "appropriate source of information for obtaining ... waste burial/disposition costs"[15] for use by nuclear power reactor licensees in providing to the NRC "reasonable assurance . . . that funds will be available for decommissioning."[16] Various revisions of this report provide historical burial cost escalation factors from 1986 through 2008 for burial sites in the states of Nevada, South Carolina, and Washington.[17]

SCE used the burial cost escalation factors to statistically estimate the range of annual burial cost escalation rates that occurred over the period from 1986 to 2008 for the three burial sites. For the South Carolina and Washington sites, two rates were calculated: one for direct burial, and another for disposition of waste by vendors. The statistical model was an exponential growth model.

The analysis produced five estimated annual burial escalation rates, ranging from a low rate of 0.2 percent to a high rate of 13.9 percent. The mean estimate was 6.7 percent

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14 Division of Policy and Rulemaking, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, "Report on Waste Burial Charges/Changes in Decommissioning Waste Disposal Costs at Low-Level Waste Burial Facilities", NUREG-1307, Revision 13, November 2008, plus older revisions.

15 *Id.*, Revision 13, Foreword.

16 10 C.F.R. 50.75(a).

17 NUREG-1307, Table 2.1.

and the median estimate was 8.4 percent. SCE proposes to use the mean estimate of 6.7 percent to estimate its future burial costs. Although SCE recognizes that none of the disposal sites referenced in the NRC reports are likely to be available when the SONGS 2&3 and Palo Verde units are assumed to be decommissioned, the escalation rates in the reports are the most representative of any burial escalation rate data available. SCE's burial escalation rate should be adopted to estimate SCE's LLRW burial costs.

(2) SDG&E

SDG&E has reviewed the methodology developed by SCE to escalate LLRW burial costs and accepts the results as being reasonable. As SCE indicates, there is no readily available source or site that could be used to develop a more precise and actual estimate of burial costs. Thus, the use of a proxy base cost and reasonable escalation rates based on historical data is required for the purposes of this proceeding.

2. Rate of Return Estimates

a) SCE

Each Utility has established two master trusts: (1) one (Qualified Master Trust) that holds the decommissioning funds that result from contributions that qualify for an income tax deduction under Section 468A of the Internal Revenue Code, and (2) one (Nonqualified Master Trust) that holds the decommissioning funds that result from all other contributions (Nonqualified Trusts).[18] Each Utility has established unit accounts within each master trust, to maintain separate trust accounts for each of the SONGS units.[19] SCE has established unit accounts within each master trust, to maintain separate trust accounts for each of the Palo Verde units.

(1) Qualified Trust

Prior to January 1, 1993, the Qualified Trust investments were subject to certain restrictions, known as "Black Lung" restrictions. In October 1992, the Energy Policy Act of

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18 As discussed in Section I.J, the Energy Policy Act of 2005 included provisions that enable transfer of certain Nonqualified Trust assets to Qualified Trusts. The Nonqualified Master Trust may continue to be used for any asset not eligible for Qualified Trust treatment.

19 The Master Trust Agreement requires that trust investments for each trust be overseen by a five-member Committee. Two of members may be affiliated with the Utility. The other three cannot be affiliated with the utility. Their appointments are confirmed by the Commission.

1992 eliminated these restrictions and lowered the tax rate on trust earnings from the maximum corporate rate (then 34%) to 22% beginning in 1994, and to 20% beginning in 1996. Subsequent to the passage of the Energy Policy Act of 1992, Pacific Gas and Electric Company, SDG&E, and SCE all filed petitions for modification of D.87-05-062 in OII-86,[20] seeking relaxation of previous restrictions on the investments of the Qualified Trust.

In D.07-01-003, the Commission determined that up to 60% of the funds of a Qualified Trust may be invested in equities.[21] In D.95-07-055, the Commission determined that up to 20% of the funds of a Qualified Trust may be invested in international equities.[22] At least 50% of the equity portion of the funds of a Qualified Trust must be invested passively.[23] Up to 100% of the funds of a Qualified Trust may be invested in investment grade fixed-income securities.[24]

(2) Nonqualified Trust

D.95-07-055 also established investment restrictions for the Nonqualified Trust. These are identical to those of the Qualified Trust.[25]

(3) Global Insight Projections Related To Trust Returns

As in the case of escalation, SCE based its projections of future trust returns upon projections provided by the IHS Global Insight economic forecasting service in its December 2008 projection. The Global Insight projections are made on a pre-tax basis, and SCE adjusted them for applicable taxes. SCE has used this direct method historically in SCE's decommissioning contribution analyses.

(a) Equity Returns

SCE utilized IHS Global Insight variables for the Standard & Poor's (S&P) 500 Stock Price Index (SP500), and the dividend yield for the Standard & Poor's 500

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[20] These petitions were filed on May 18, 1993 (PG&E), May 21, 1993 (SCE), and August 18, 1993 (SDG&E).

[21] D.07-01-003, Appendix B, Section 4.1.1.2.1.

[22] D.95-07-055, Findings of Fact 7 and 8.

[23] A passive investment strategy is one that seeks to match the return of a benchmark index, such as the Standard & Poor's 500 index, by replicating the composition of the index. D.95-07-055, Findings of Fact 12 and 13.

[24] Investment grade securities are those rated BBB- or higher by Standard & Poor's or equal to or higher than the equivalent rating by other rating agencies. D.95-07-055, Finding of Fact 9.

[25] D.95-07-055, Conclusion of Law 2.

Stock Index (SP500YLD) to project future equity returns. From quarterly data, SCE calculated the annual price return based on the S&P price index values, then added the annual dividend yield to produce the total annual equity return for each year. Over the 30-year period from 2009 through 2038, the average annual pre-tax equity return equals 8.06%, composed of an average annual price increase of 6.34% and an annual dividend yield of 1.71%.

(b) Fixed-Income Returns

IHS Global Insight also provides projected returns on fixed income securities for three variables used in SCE's analysis: (1) the yield on three-month U.S. Treasury bills (RMTB3M), (2) the yield on ten-year constant maturity U.S. Treasury bonds (RMTCM10Y), and (3) Moody's average yield on AAA state and local government bonds (RMMUNIAAA). The projected return on three-month Treasury bills averages 4.36% per year over the period 2009-2038. The return for ten-year Treasury bonds is calculated assuming a one-year holding period. Over the period 2008-2038, the projected return on ten-year Treasury bonds averages 5.32% per year.

Moody's average yield on AAA state and local government bonds projected by IHS Global Insight is for bonds with a twenty-year maturity. As with ten-year Treasury bonds, the projected return for AAA state and local government bonds is calculated assuming a one-year holding period. Over the period 2009-2038, the projected return on AAA state and local government bonds averages 5.34%. However, the actual municipal bond strategy used in managing SCE's Nonqualified Trust is closer to a 10-year average maturity. Therefore, SCE lowered the annual projected return by 0.65% to reflect a return difference between 10 and 20 year maturity municipal bonds.[26] Applying this adjustment results in a 4.69% return used for municipal bond investments.

(4) Projected After-Tax Trust Fund Returns

Projected after-tax returns for the Qualified Trust and the Nonqualified Trust depend on: (1) the pre-tax returns discussed immediately above, (2) the tax rates applicable to the different financial instruments held by each Trust, (3) Trust management fees and (4) the projected

[26] This 0.65% negative adder was estimated by calculating the arithmetic average of the annual spread between the Moody's 20-year AAA municipal bond yield index and corresponding 10-year index over the period from 1986 through 2008.

investment strategy chosen by the Decommissioning Trust Investment Committee that each Trust is projected to pursue within the restrictions set by the Commission. The tax rates and the Trust investment strategies are summarized in the following table:

Table II-6
Tax Rates and Trust Investment Strategies

Characteristic	Qualified Trust	Nonqualified Trust
Federal tax rate	20.00%	35.00%
State tax rate	8.84%	8.84%
Trust management fees (pre-tax)	0.20% annually	0.20% annually
Equity portfolio turnover	20% annually	20% annually
Federal dividend exclusion	0%	70%
Equity investment percentage (before liquidation)	60%	60%
Equity investment liquidation	Beginning 4 years before unit shutdown	Beginning 4 years before unit shutdown
Fixed income asset	AAA municipal bonds	AAA municipal bonds

Based on the tax rates and Trust investment strategies shown in the table above, the following after-tax Trust fund returns were calculated in the table below:

Table II-7
After-Tax Trust Fund Returns Employed by SCE

	Qualified Trust	Nonqualified Trust
SONGS 2&3 (2009 through 2017)	5.29%	4.94% (SONGS 2 only)
SONGS 2&3 (2018/2019/2020/2021)	5.06%/4.83%/4.59%/4.36%	4.78%/4.63%/4.47%/4.32% (SONGS 2 only)
SONGS 2&3 (Post retirement)	4.13%	4.16% (SONGS 2 only)
Palo Verde (2009 through five years before shutdown)	5.30%	Not Applicable
Palo Verde (Four years before shutdown through one year before shutdown)	5.07%/4.83%/4.60%/4.36%	Not Applicable
Palo Verde (Post retirement)	4.13%	Not Applicable

b) SDG&E

SDG&E based its projections of future trust returns upon projections provided by Global Insight in the "Fourth Quarter 2008 – The 30-Year Focus" projection tables (see Appendix B).

The Global Insight projections, which span the period from 2009 through 2038, were made on a pre-tax basis. Global Insight's projected annual pre-tax return for the S&P 500 and 10-year Treasury Bonds average 8.13 percent and 5.34 percent, respectively. SDG&E adjusted these returns for applicable taxes and management fees to arrive at an after-tax, after-fee return. The Qualified Trust is subject to a twenty-percent (20%) federal tax rate, an 8.84 percent California state tax rate, and an estimated 0.2 percent allowance for investment management fees. SDG&E also estimates a relatively low portfolio turnover rate of twenty percent (20%) per annum, which allows for greater compound growth since taxation on gains is deferred. Applicable tax rates and investment assumptions are summarized in Table I-8. This same method has been used historically in SDG&E's decommissioning contribution analysis. Based on the Global Insight projections and the other investment assumptions, the projected overall after-tax, after-fee return prior to the commencement of decommissioning activities is 5.28 percent for the Qualified Trust and 5.20 percent for the Non-Qualified Trust (see Appendix C).

Table II-8
Annual Tax Rates and Investment Assumptions

Characteristic	**Qualified Trust**	**Non-Qualified Trust**
Federal Tax Rate	20.00%	35.00%
State Tax Rate	8.84%	8.84%
Trust Management Fees	0.20%	0.20%
Equity Portfolio Turnover	20%	20%
Equity Investment %	60%	60%

While SDG&E's proposed rates reflect the above equity return assumptions, these returns may not be achievable and actual returns may be significantly lower. As noted in Global Insight's forecasts, the abovementioned returns represent averages, subject to cyclical swings, and are provided alongside both optimistic and pessimistic scenarios. Throughout history, there have been extended periods where investment returns in the equity market have been very poor. During the ten-year period through December 31, 2008, the S&P 500 Index produced a loss of 1.4 percent. Appendix D shows that the rolling five-year return in the S&P 500 as of December 31, 2008, was a loss of 2.2

percent. Other periods are also shown in Appendix D where equity market returns were well below the current pre-tax forecast of 8.13 percent for extended periods of time. Additional data indicative of the probability of lower returns than suggested by historical averages are provided below.

(1) Equity Risk Premium

The "equity risk premium" is the excess return that equity markets provide above a "risk-free" rate of return. This excess return compensates investors for taking on the relatively higher risks in equity markets. The equity risk premium is widely used to forecast the growth of investment portfolios over the long term. Recent studies show that the relatively high equity risk premiums witnessed in the past may be unsustainable in the future, and may have occurred due to price-to-earnings ratio expansion, "survivorship" bias, or inaccurate estimation models. This means that overall equity returns may be significantly lower than expectations based off historical equity premiums. Taking Global Insight's thirty-year average pre-tax return forecast of 4.41 percent for Treasury bills (i.e., the risk-free rate) and 8.13 percent for equities, they imply a 3.72 percent forward equity premium, which is close to historical averages. This is higher than figures published by Jeremy Siegel, a professor at the Wharton School of Business, who states that that the equity risk premium is generally between two and three percent.[27] Many empirical studies also estimate the equity premium to be in the 2 percent to 2.5 percent range.

(2) Global Slowdown

Returns on equity investments are tied directly to overall business growth and the broad market economy as a whole. Beginning in 2007 and continuing through 2008, the U.S. stock market, typically a leading indicator of the broader economy, posted some of its greatest losses since the 1930s. Growth in GDP has slowed dramatically (see Appendix E) and unemployment rates continue to rise. Although history shows that equity markets maintain strong positive return biases over Treasury Bonds for the long term, they are also cyclical in nature. An extended and prolonged correction can cause flat or negative returns for several years and can undermine the historical averages

[27] Siegal, Jeremy, "Stocks for the Long Run", Fourth Edition, 2008.

for a substantial amount of time. Table II-9 illustrates several decades of lackluster equity performance throughout the last seventy-eight years.

Table II-9
Annual Return for S&P 500 Index

Time Period	Annual Return
1929-1939	-0.80%
1940-1949	9.20%
1950-1959	19.40%
1960-1969	7.80%
1970-1979	5.90%
1980-1989	17.50%
1990-1999	18.20%
2000-2008	-3.10%

Periods of Lackluster Equity Performance

These data again lead SDG&E to conclude that the 8.13 percent return for equities reflected in the annual contributions to the nuclear decommissioning trust accounts may prove optimistic during the forthcoming triennial rate period.

III.

CALCULATING DECOMMISSIONING CONTRIBUTIONS

A. Method for Calculating Decommissioning Contributions

1. Qualifying Percentage

In the 2005 NDCTP filing, all the authorized future contribution amounts were assumed to be placed into the Qualified Trust Funds due to the presumed enactment of the Energy Policy Act of 2005. However, as described in Chapter IV, California has not conformed its tax code with the federal law, and as a result, funds in the Non-Qualified trust have not been transferred to Qualified trust. Therefore, future contributions to the Non-Qualified trust are assumed to be resumed in this filing. The percentages between Qualified and Non-Qualified trust funds for each of the units are reflected in the following table[28]:

Table III-10
Percentages Between Qualified and Non-Qualified Trust Funds

Nuclear Unit	Qualified %	Non-Qualified %
SONGS 2	96.77%	3.23%
SONGS 3	100%	0%
PVNGS 1	100%	0%
PVNGS 2	100%	0%
PVNGS 3	100%	0%

2. Annual Contribution Amount

There are four key elements used in determining the annual contribution amount: (1) trust fund balance liquidation value, (2) current-dollar engineering cost studies, (3) escalation, and (4) after-tax rates of return. To determine the necessary contribution levels, annual escalation rates convert the decommissioning cost estimates from current dollars[29] to the dollars of the year when they will be actually incurred, and the future cost estimates will be treated as withdrawals from the trust fund balances. The estimated rate of return is used to calculate an expected growth in the decommissioning

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[28] The percentages are the same as those used in the 2002 NDCTP proceeding.

[29] See Exhibit No. SCE-2, pp. 8. The engineering cost studies provide the cost estimates in 2008 dollars for SONGS 2 & 3, and in 2007 dollars for Palo Verde 1, 2 and 3.

trust fund balances. The escalation rates and rate of return assumptions are discussed in Chapter II of this Volume.

B. Recommended Contributions Levels Commencing January 1, 2011

1. SCE

The updated contributions analysis is based upon the updated cost studies described in Exhibit No. SCE-2, the trust fund balances as of January 31, 2009[30], and the estimated escalation rates and after-tax rates of return established in Chapter II.

Based on these parameters, the analysis shows that, SONGS 2 and 3 require an increase from the contributions that were authorized in the 2005 NDCTP in order to meet the future liabilities. This increase is primarily due to the actual trust fund performance, changes in estimated escalation rates, and after-tax rates of return from those authorized in the 2005 NDCTP, as described in Chapter II. However, given the updated decommissioning cost studies, the expected cost escalation rates and after-tax rates of return, the January 31, 2009 trust fund balances for Palo Verde 1-3 will be sufficient for the estimated future cost requirements without any additional contributions[31]. The total annual decommissioning fund contribution requirement for all units is $64.537 million (SCE share)[32], including Qualified Trust Funds for SONGS 2 & 3, and Non-Qualified Trust Funds for SONGS 2. Table III-11 below provides this estimate and the associated variables. Table III-12 below shows the estimated contributions and revenue requirements[33] for each unit starting from January 1, 2011.

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30 See workpapers supporting this testimony.

31 See Exhibit No. SCE-2, pp. 8. The cost estimates for Palo Verde 1-3 are $708.691 million in total (2007 dollars).

32 The contributions will continue through year 2022 for SONGS 2 & 3. The 2022 date for SONGS 2 & 3 is consistent with the construction recapture period that was added to the original period of the SONGS 2 & 3 NRC operating licenses.

33 The calculation of revenue requirements is based on the net-to-gross multipliers from SCE's 2009 General Rate Case. See workpapers supporting this testimony.

Table III-11
Proposed Nuclear Decommissioning Recovery SONGS 2&3 And Palo Verde (SCE Share, Including the Acquisition of Anaheim Share)
(Nominal $000, Unless otherwise stated)

Description	2005 NDCTP Authorized (Incl. Anaheim) (as of 5/31/06 Liquidation Values)	2009 NDCTP Estimated (Incl. Anaheim) (as of 1/31/09 Liquidation Values)
Estimated Costs (SCE share)	3,085,585 (2004 Dollars)	3,526,589 (2008 Dollars)[34]
Fund Liquidation Value	2,478,775	2,253,356
Annual Contribution	45,904	64,537
Annual Revenue Requirement	46,448[35]	66,430
Assumptions:		
After-Tax Rate of Return:		
Qualified	4.40% - 5.76%	4.13% - 5.30%
Nonqualified	4.54% - 5.25%	4.16% - 4.94%
Cost Escalation Rate	Varies	Varies

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Table III-12
Proposed Nuclear Decommissioning Contribution Amounts by Unit (SCE Share, Including the Acquisition of Anaheim Share)
(Nominal $000)

	SONGS 1		SONGS 2		SONGS 3	PVNGS 1	PVNGS 2	PVNGS 3	
	Qualified	Nonqual	Qualified	Nonqual	Qualified	Qualified	Qualified	Qualified	Total
Authorized									
Edison's Authorized Contribution Amount	-	-	18,687	-	12,759	5,067	5,663	3,728	45,904
Edison's Authorized Revenue Requirement	-	-	18,908	-	12,911	5,127	5,730	3,773	46,448
Proposed									
Edison's Updated Contribution Amount	-	-	35,637	1,478	27,421	-	-	-	64,537
Edison's Updated Revenue Requirement	-	-	36,050	2,641	27,739	-	-	-	66,430

34 The cost estimates in 2007 dollars for Palo Verde 1, 2 and 3 are escalated into 2008 dollars for the use of this table.

35 See Advice Letter 2092-E.

IV.

TAX TREATMENT OF TRUSTS

A. General Tax Rules

SCE and SDG&E maintain Qualified Trusts and Nonqualified Trusts to fund their future nuclear decommissioning obligations. A Qualified Trust is a trust that meets the requirements of Internal Revenue Code Section (IRC §) 468A. A Nonqualified Trust holds any portion of nuclear decommissioning funds that did not meet the requirements of IRC §468A, prior to amendments made by the Energy Policy Act of 2005. The nonqualified portion had typically represented the portion of the decommissioning obligation associated with a nuclear power plant that commenced commercial operations prior to the enactment of IRC §468A in 1984. The key advantages of utilizing a Qualified Trust include the ability of: (1) the utility to take a tax deduction on amounts contributed into the Qualified Trust, and (2) the Qualified Trust to pay federal income taxes at a rate of 20% (instead of the regular corporate tax rate of 35%) on recognized investment gains.

B. Energy Policy Act of 2005

The Energy Policy Act of 2005 amended IRC §468A to essentially expand the deductibility of contributions into Qualified Trusts by allowing all nuclear decommissioning liability to be funded through the use of Qualified Trusts, and allowing all or portions of amounts that were previously contributed into Nonqualified Trusts to be transferred into Qualified Trusts ("Pour-Over Provision"). SCE and SDG&E, in their previous NDCTP filing, requested and received approval from the Commission to amend their trust agreements for such fund transfers as provided for by amended §468A. The requests were contingent on seeking permission from the Internal Revenue Service for such transfer, and ensuring the appropriateness of comporting with amended §468A.

For state income tax purposes, California Corporation Tax Law §24690 refers specifically to federal IRC §468A and states that such federal provision "shall be applicable" for California tax purposes. However, California Corporation Tax Law does not automatically follow federal tax law when federal law changes. California Corporation Tax Law sections that follow federal IRC sections must be specifically updated to accept amendments to federal tax. Therefore, the California Legislature must affirmatively adopt the federal amendments to bring California Corporation Tax law into conformity with amendments to the federal IRC. As of the date of this filing, the California Legislature has not passed legislation to adopt the amendments to IRC §468A resulting from the 2005 Energy Policy Act. As a consequence, the favorable federal tax treatment, including the pour-over provision in amended IRC §468A that allows transfer of funds from a Non-Qualified Nuclear Decommissioning Trust to a Qualified Nuclear Decommissioning Trust, does not apply in California. As a result, SCE and SDG&E have not transferred funds from the Nonqualified Trusts to the Qualified Trusts because of concerns that making such transfers prior to enactment of legislation to bring California Corporation Tax Law §24690 into conformity with amended IRC §468A could have the unintended result of disqualifying the Qualified Trusts. Disqualification of the Qualified Trusts could cause SDG&E and SCE to include the entire value of the funds in those trusts in their California taxable income and prevent any future funding of decommissioning liability through a qualified trust for California tax purposes.

California tax law includes general conformity with federal tax laws enacted through January 1, 2005, which was before enactment of the federal Energy Policy Act of 2005. From a policy standpoint, conformity promotes accuracy in self-assessment of taxes, so most tax policy experts support general conformity. California is currently undergoing a complete re-evaluation of its tax and revenue policies under legislation signed by the Governor in 2008 that created the Commission on the 21st Century Economy. We expect to see the Commission recommend general conformity between California and federal tax law that would bring the favorable tax advantages of amended IRC §468A to California Tax Law §24690. SDG&E and SCE recommend that the Commission allow the utilities to continue to maintain Nonqualified Trusts as well as Qualified Trusts and defer ordering any transfer of funds from the Nonqualified Trusts until California conforms to federal tax law.

C. Information For Ruling Request Purposes

Contributions made into Qualified Trusts are deductible for tax return purposes only to the extent that such contributions are within amounts stipulated in Schedule of Ruling Amounts issued by the National Office of the Internal Revenue Service for each Qualified Trust. To receive a Schedule of Ruling Amounts, SCE and SDG&E must request a ruling from the National Office of the Internal

Revenue Service, and in order to obtain Schedule of Ruling Amounts, the Internal Revenue Service requires certain information from taxpayers. To facilitate this process, SCE requests that Appendix G, which contains tables showing the revenue requirement, assumptions, fund disbursements, and other information required by the Internal Revenue Service as adopted by the Commission, be part of the Commission's final decision in this application.[36]

D. SCE Complies with Compliance Order

As part of the settlement agreement in the prior Decision 07-01-003 dated January 11, 2007 for the NDCTP, SCE agreed to provide, as part of its tax testimony in the next NDCTP, a tax memorandum account that would track the time value of money associated with any estimated income tax payment amounts of its Qualified Nuclear Decommissioning Trusts (Trusts) that were above minimum estimated income tax payment amounts required to avoid underpayment penalties and interest imposed by the Internal Revenue Service (IRS). Additionally, SCE filed Advice Letter 2092-E on January 22, 2007 to establish the Nuclear Decommissioning Tax Memorandum Account (NDTMA) to be in compliance with Decision 07-01-003.

The NDTMA compares the quarterly estimated tax payments actually made during the taxable year (starting in 2007) with the minimum estimated income tax payments required to be paid each quarterly period to avoid underpayment penalties and interest imposed by the IRS. The minimum quarterly estimated income tax payment amount required to avoid underpayment penalties and interest can only be determined after the taxable year in which the estimated payments are required to be made. This is because the calculation must be based on the final and actual tax liability as reflected in the filed Trusts' tax returns. The differences between these two amounts and the resulting interest on such differences have been computed in compliance with Decision No. 07-01-003, as reflected in Appendix F. SCE's authorized contribution amount from the Trusts per the previous settlement agreement (Decision 07-01-003) was $42.239 million. The net difference NDTMA-imposed penalty calculation

[36] To facilitate obtaining the required Schedule of Ruling Amounts from the Internal Revenue Service, SDG&E also requests that appendices containing tables showing the revenue requirement, assumptions, fund disbursements, and other information required by the IRS as adopted by the Commission be part of the Commission's final decision in this application.

per the compliance filing is less than sixty-three thousand dollars which is less than .0015% of the contribution amount, clearly a de minimis amount.

E. SCE Compliance Order Should Be Closed For Future Proceedings

Going forward, SCE requests that the compliance order to prepare the NDTMA should be closed for future proceedings because the basic premise of the NDTMA to predict future movement of the stock market (and other financial investment instruments) and make estimated tax payments during the taxable year that match exactly (to the dollar) to the future actual final tax liability of the Trusts is wholly unreasonable and could distort otherwise reasonable and prudent investment strategy.

The reason the government requires taxpayers to make estimated tax payments is to ensure that taxpayers pay in during the course of the year the approximate amount of tax that will eventually be due for that year. The actual taxable income for the year is not known any sooner than the last day of the taxable year, which is after all of the estimated tax payments are required to be made. That is because the last estimate for the year is due on December 15; however, the year does not end until December 31. It is wholly unreasonable to expect SCE (or any taxpayer with financial investments) to exactly predict investment market movement and precisely (to the dollar) know its future actual taxable income in computing the estimated quarterly tax payments during the year.

An underpayment of quarterly estimated taxes to the government taxing authorities could result in an underpayment penalty and interest; an "overpayment" of quarterly estimated taxes under the compliance order to prepare the NDTMA yields an "overpayment liability penalty" to shareholders. Essentially, NDTMA requires an unreasonable and unnecessary punitive payment unless the Trusts make estimated tax payments during the taxable year that match exactly (to the dollar) to the unknown actual future tax liability that cannot be determined until after the taxable year and after the estimated payments are required to be paid. A taxpayer's primary objective in making estimated quarterly tax payments should be to avoid IRS-imposed penalties and interest, and should not be (nor is it required by the IRS) to match, dollar-to-dollar, the final actual future income tax liability.

The implications associated with preparing the NDTMA also results in unintended mixed signals to the Trust's investment managers that could distort otherwise reasonable and prudent investment strategies. For example, investment managers would have to “think twice” about divesting undesirable investments whose value may have dropped considerably in the final quarter of the tax year because the sale of such investments would reduce final income tax liability for the year and result in punitive “overpayment” implications from the NDTMA , even though the appropriate investment strategy would have been to divest the Trust of such undesirable investments. Finally, the CPUC compliance order is imposed only against SCE, and not to any of the other utility companies in California that also maintain similar nuclear decommissioning trusts. Therefore, SCE requests that the computation, payment, and recording in the NDTMA of interest on the net differences of estimated tax be limited to 2007 and 2008 only and the memorandum account be closed thereafter.

V.

RATEMAKING

A. SCE

1. SCE's Nuclear Decommissioning Adjustment Mechanism (NDAM)

This testimony describes the recovery of the authorized SONGS 2&3 and Palo Verde Nuclear Decommissioning Trust Fund Revenue Requirement. SCE's current rate structure is comprised of the following seven major rate components:

1. Distribution;
2. Transmission (includes all FERC jurisdictional cost and revenue components;
3. SCE Generation;
4. New System Generation Charge;
5. Nuclear Decommissioning;
6. Public Purpose Program; and
7. Department of Water Resources (DWR) Power Charge and Bond Charge

The Nuclear Decommissioning rate is set to recover costs of: (1) authorized SONGS 2&3 and Palo Verde Nuclear Decommissioning Trust Fund Revenue Requirement; and (2) authorized spent nuclear fuel storage fees. To ensure that all customers that have received the benefits of SONGS 2&3 and Palo Verde operations are equitably burdened with the costs to decommission those facilities, SCE is requesting to update its SONGS 2&3 and Palo Verde Nuclear Decommissioning Trust Fund Revenue Requirement, commencing January 1, 2011, to $66.4 million, an increase of $20.0 million. The annual Energy Resource Recovery Account (ERRA) reasonableness proceeding considers the on-going cost recovery of spent nuclear fuel storage fees.

The Commission established the NDAM[37] in D.99-10-057 to ensure that SCE recovers no more and no less than its authorized Nuclear Decommissioning Trust Revenue Requirement and to track actual costs for Department of Energy (DOE) Decontamination and Decommissioning

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[37] The NDAM currently compares NDAM revenue and the authorized Nuclear Decommissioning Trust and actual fees and spent fuel costs. SCE is no longer incurring DOE D&D fees.

(D&D) fees and spent fuel. SCE will update its Nuclear Decommissioning Trust Revenue Requirement in the NDAM on January 1, 2011 to reflect the Commission-adopted revenue requirement in this proceeding. In its annual ERRA August proceeding, SCE will forecast the December 31 balance to be recovered in the NDAM, either overcollected or undercollected, plus an amount for Franchise Fees and Uncollectibles (FF&U). The NDAM over/under collection will either be returned to, or recovered from, SCE's retail electric customers in Nuclear Decommissioning rate levels.[38] After a Commission decision is issued in this proceeding, SCE will include the Nuclear Decommissioning Trust Fund Revenue Requirement change in rate levels in the 2011 ERRA forecast rate consolidation.

2. Elimination of Nuclear Decommissioning Tax Memorandum Account (NDTMA)

The Commission in D.07-01-003 approved the Joint Settlement in A.05-11-008, Joint Application of SCE and SDG&E for the Nuclear Decommissioning Cost Triennial Proceeding (NDCTP). On January 22, 2007, SCE filed Advice 2092-E to implement the Joint Settlement and to establish the NDTMA. On February 16, 2007, the Energy Division approved Advice 2092-E. Decision No. 07-01-003 directed SCE to provide, as part of its tax testimony in the next NDCTP, a memorandum account that would track, among other things, the time value of money associated with any net overpayment of estimated income tax payments of its qualified Nuclear Decommissioning Trusts. For the reasons discussed in Chapter IV of Utilities-3, SCE is proposing to eliminate the NDTMA. SCE requests that once the Commission has issued a final decision in this NDCTP, no additional entries will be tracked in the NDTMA for 2009, and the balance as of December 31, 2009 in the NDTMA will be transferred to the NDAM.[39] SCE will include the 2008 time value of money associated with any net overpayment of estimated income tax payments in the NDTMA for review in the April 1st ERRA reasonableness proceeding.

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[38] In addition, SCE sets forth the operation of the NDAM for Commission review for each calendar year in the ERRA reasonableness proceedings submitted to the Commission on April 1st of each year.

[39] The balance at December 31, 2009 will consist of any 2007 ($62,000) and any 2008 time value of money associated with any net overpayment of estimated income tax payments plus interest.

B. SDG&E

SDG&E is requesting that the Commission approve an annual contribution to its nuclear decommissioning trust funds for SONGS Units 2 & 3 in the amount of $15.284 million, commencing May 1, 2010. On an annualized basis, the change in the level of contributions to SDG&E's SONGS Units 2 & 3 nuclear decommissioning trust represents an increase of $5.804 million in rates compared to the currently authorized annual revenue requirement of $9.480 million.

SDG&E is also currently authorized to recover $0.959 million[40] of other SONGS 2 & 3 costs, inclusive of an allowance for franchise fees and uncollectibles, through the nuclear decommissioning rate. This includes costs associated with spent nuclear fuel storage.[41] SDG&E is not requesting a change to this constituent of the Nuclear Decommissioning Adjustment Mechanism (NDAM) revenue requirement as these costs and their recovery are authorized in SDG&E's general rate case proceeding. For the purposes of establishing SDG&E's total NDAM revenue requirement, however, SDG&E is including the $15.284 million in annual revenue requirements, plus the $0.959 million of other non-trust SONGS expenses, resulting in a total proposed annual nuclear decommissioning revenue requirement of $16.243 million. This represents a change in annual revenue requirements of $5.804 million, which is entirely due to the change in the proposed trust contribution and the associated allowance for franchise fees and uncollectibles.

SDG&E proposes to defer the impact of the increase in the nuclear decommissioning revenue requirement to customer rates in 2010.[42] Instead, SDG&E will utilize the expected overcollection in its NDAM balancing account to offset the revenue requirement increase for 2010 partially and address any resulting net balance in the NDAM balancing account as part of SDG&E's annual electric regulatory account update advice filing filed in October of each year for rates effective January 1 of the following

[40] This figure is shown in 2008$ and is subject to escalation to the rate year in which it is collected as authorized in Commission Decision 09-03-025, SCE's 2009 General Rate Case. This figure also reflects the application of the factor for franchise fees and uncollectibles as authorized in SDG&E's last general rate case proceeding. (See Commission Decision 08-07-046.)

[41] The current non-trust nuclear decommissioning revenue requirement was established in SDG&E's 2008 General Rate Case (see Commission Decision 08-07-046).

[42] In the event the Commission authorizes an increase in the level of annual contributions to SDG&E's nuclear decommissioning trusts but does not permit SDG&E to defer any changes in rates to those years beyond 2010, an appropriate allowance for franchise fees and uncollectibles should be added to the annual revenue requirement approved for and billed in 2010.

year. The forecasted balance in the account as of December 31, 2009, is an overcollection of approximately $2.336 million.

In the interest of minimizing customer impacts from this annual revenue requirement increase, SDG&E intends to utilize overcollections in other balancing accounts (e.g., the Transition Cost Balancing Account) or offset any nuclear-decommissioning revenue changes with revenues from other regulatory accounts. Beginning in 2010,[43] SDG&E will address the disposition of the NDAM rate and balancing account balances in its annual electric regulatory account update advice filing submitted in October of each year for rates effective January 1 of the following year.

[43] The first advice filing implementing this proposal will be filed in October 2010 for rates effective January 1, 2011.

VI.

MATTERS ADDRESSED UNDER DIRECTION OF COMMISSION DECISION NO. 07-01-003

A. SCE

In the immediately previous proceeding related to the funding of SDG&E's Nuclear Decommissioning Trust Funds (see Joint Application of SCE and SDG&E, docketed as Commission Application No. 05-11-008), the Commission directed SDG&E, SCE and Pacific Gas and Electric (PG&E) to address, as part of their next application, three matters affecting the cost estimates for the decommissioning of the nuclear generation facilities they own. (See Decision No. 07-01-003, Ordering Paragraphs Nos.6, 7 and 8.) Specifically, the utilities were to describe: (1) their efforts associated with retaining and utilizing qualified and experienced personnel to perform decommissioning activities, (2) the manner in which they forecasted storage costs for low-level radioactive wastes, and (3) the manner in which they determined an appropriate contingency factor to be included in setting the funding levels necessary to support decommissioning activities fully. SCE discusses each of these three items in its testimony in Exhibit SCE-1 Section II.D, Exhibit SCE-1 Section IV.A.2, and Exhibit SCE-1 Section IV.A.3, respectively.

B. SDG&E

With respect to the three matters raised by the Commission, SDG&E is in a unique position relative to SCE and PG&E. SCE is the majority owner and exclusive operating and decommissioning agent for the SONGS units. As a result, SDG&E has a subordinate role relative to SCE with respect to the operation and decommissioning of the SONGS units. To be certain, SDG&E actively monitors and confers with SCE regarding the operation of the SONGS units, paying particular attention to the aspects and implications of those decisions that directly or indirectly affect SDG&E's interests as a minority owner and/or the interests of SDG&E's retail electric customers. With respect to the three matters raised by the Commission, SDG&E intends to conduct itself in accordance with this traditional role and posture.

Essentially, SDG&E will rely on SCE as the decommissioning agent for the SONGS units to lead the efforts in securing the services of qualified and experienced personnel to perform decommissioning activities at the SONGS site, in making the original forecasts of the costs of storing low-level radioactive wastes generated at the SONGS site, and in determining the appropriate contingency factor that should be reflected in estimating the costs for decommissioning activities for the SONGS units. At this time, SDG&E does not plan on performing any of these activities independently from the efforts being led by SCE; this avoids the need for SDG&E to incur duplicative costs and wasted effort were it to follow a different approach. Relying on SCE in these instances is reasonable and prudent on SDG&E's part, not only because of the relative ownership positions held in the SONGS units as between the two companies, but in light of the broader experience SCE gains from its additional ownership position in the Palo Verde Nuclear Generating Station.

Notwithstanding this deference to SCE's leadership role, SDG&E fully intends to be consulted with respect to these matters, and was in fact consulted with respect to these matters as they are reflected in this application. Following our review of the estimate of the costs of plant decommissioning provided by ABZ as well as SCE's efforts, analysis and conclusions, SDG&E provided SCE with its advice and consent as appropriate and concurs in the analysis and conclusions presented to the Commission in this joint application with respect to the three issues described in the Commission's previous orders.

Appendix A

SOUTHERN CALIFORNIA EDISON COMPANY

QUALIFICATIONS AND PREPARED TESTIMONY

OF DR. PAUL T. HUNT, JR.

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

A. My name is Paul T. Hunt, Jr., 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 the Manager of Regulatory Finance and Economics, supervising the Regulatory Finance Division of the Treasurer's Department. My present responsibility is to apply economic, financial, and statistical analysis to regulatory issues and for internal corporate purposes.

Q. Briefly describe your educational and professional background.

A. I received a Bachelor of Arts degree in Economics from Pomona College in 1975, a Master of Arts degree in Economics from Stanford University in 1976, and a Doctor of Philosophy degree from Stanford University in 1981. I joined the Southern California Edison Company as an Associate Economist in the Treasurer's Department in July 1980. I was promoted to Economist in 1982 and Senior Economist in 1984. In 1989, I transferred to the Regulatory Policy and Affairs Department as a Regulatory Economics Consultant. I returned to the Treasurer's Department in 1996 as a Senior Economist. In 1997, I was promoted to Project Manager. I was promoted to my present position in 2000.

I have testified before the California Public Utilities Commission and the Federal Energy Regulatory Commission.

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

A. The purpose of my testimony in this proceeding is to sponsor portions of Exhibit Utilities-3, as identified in the Table of Contents thereto.

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

A. Yes, it was.

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

A. Yes, I do.

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

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.

SOUTHERN CALIFORNIA EDISON COMPANY

QUALIFICATIONS AND PREPARED TESTIMONY

OF YELENA SCHIMINSKE

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

A. My name is Yelena Schiminske, 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 a Manager Project/Product 2 in the Regulatory Finance and Economics Group, Treasurer's Department. My present responsibilities include applying economic and financial analysis to regulatory issues for internal corporate purposes.

Q. Briefly describe your educational and professional background.

A. I received a Bachelor degree in Management from College of Trade, Minsk, Belarus in 1991; a Master of Science degree in Economics from Belarussian Economic University, Minsk, Belarus in 1997; a Bachelor of Arts degree in Business Administration from Southwest Baptist University, Bolivar, Missouri in 1997; a Master of Science degree in Financial Engineering from Claremont Graduate University in 2006.

I joined the Southern California Edison Company as a Power System Operations Specialist in the ES&M Department in March 1999. In April 2005 I joined Risk Control Department in Risk Analytics Group. In September 2006 I transferred to the Treasurer's Department as a Financial Analyst.

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

A. The purpose of my testimony in this proceeding is to sponsor portions of Exhibit No. Utilitites-3, as identified in the Table of Contents thereto.

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

A. Yes, it was.

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

A. Yes, I do.

SOUTHERN CALIFORNIA EDISON COMPANY

QUALIFICATIONS AND PREPARED TESTIMONY

OF JUN HAN

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

A. My name is Jun Han, 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 a Financial Analyst in the Capital Recovery department of the Controller's Organization. I'm responsible for various financial analysis regarding regulatory issues associated with depreciation and including the calculation and analysis of the decommissioning contribution amounts presented in this proceeding.

Q. Briefly describe your educational and professional background.

A. I received my Bachelor of Engineering degree in Mechanical Engineering from Xi'an Jiaotong University in China in 2003 and research-orientated Master of Philosophy degree from Hong Kong Polytechnic University in 2005. In 2008, I graduated from the University of Southern California with a Master of Science degree in Mathematical Finance. I successfully passed the Chartered Financial Analyst (CFA) Level 1 exam and am currently a CFA Level 2 candidate. I joined Southern California Edison as a Financial Analyst in Capital Recovery & Valuation Department in 2007.

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

A. The purpose of my testimony in this proceeding is to sponsor the portions of Exhibit Utilitites-3, as identified in the Table of Contents above.

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

A. Yes, it was.

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

A. Yes, I do.

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

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.

SOUTHERN CALIFORNIA EDISON COMPANY

QUALIFICATIONS AND PREPARED TESTIMONY OF

ALFRED L. LOPEZ

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

A. My name is Alfred L. Lopez, 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 a manager in the Tax Department. My primary responsibilities include tax research and planning, and tax-related matters before regulatory commissions.

Q. Briefly describe your educational and professional background.

A. I am a Certified Public Accountant. I hold a Bachelor of Science degree in Business, with an emphasis in Accounting from California State University, Los Angeles, and a Masters of Science degree in Taxation from Golden Gate University. I have been employed in the Edison Tax Department for 20 years. Prior to joining Edison, I worked in the tax group of a public accounting firm and other large corporations.

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

A. The purpose of my testimony in this proceeding is to sponsor the portions of Exhibit Utilitites-3, as identified in the Table of Contents above.

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

A. Yes, it was.

SOUTHERN CALIFORNIA EDISON COMPANY

QUALIFICATIONS AND PREPARED TESTIMONY

OF MICHAEL J. PARISE

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

A. My name is Michael J. Parise, 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 a Financial Analyst in the Revenue and Tariffs Division of the Regulatory Policy & Affairs Department. My present responsibilities include developing, implementing and supporting SCE's revenue requirements and ratemaking, with emphasis in General Rate Case Phase 1 proceedings.

Q. Briefly describe your educational and professional background.

A. I am a graduate of Monmouth University, where I received a Bachelor of Science degree in Business Administration with an Accounting concentration. I have been employed by Southern California Edison Company since 1997. I began my career at SCE as a Business Analyst in the Customer Service Business Unit with responsibility for internal controls covering administration of various California Public Utilities Commission (CPUC) mandated Demand Side Management and Public Goods Charge programs. I joined the Regulatory Policy & Affairs Department in a Financial Analyst role in 1999. I have been responsible for Federal Energy Regulatory Commission (FERC) Tariffs and Compliance functions and CPUC Revenue Requirements and Forecasting. I have not previously testified before the CPUC.

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

A. The purpose of my testimony in this proceeding is to sponsor the portions of Exhibit No. Utilities-3, as identified in the Table of Contents thereto.

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

A. Yes, it was.

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

A. Yes, I do.

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

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.

SOUTHERN CALIFORNIA EDISON COMPANY

QUALIFICATIONS AND PREPARED TESTIMONY

QUALIFICATIONS OF JORGE A. MORALES

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

A. My name is Jorge A. Morales and my business address is 5000 South Pacific Coast Highway, San Clemente, California 92674-0128.

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

A. I am the Manager of Projects at the San Onofre Nuclear Generating Station. In this position, I am responsible for managing all capital projects at SONGS. In addition, I am responsible for managing the SONGS Unit 1 Decommissioning Project, the Dry Cask Spent Fuel Storage Project, and the Decommissioning Cost Estimates for SONGS 1, 2, & 3, and Palo Verde.

Q. Briefly describe your educational and professional background.

A. I am a Licensed Professional Engineer in the State of California. I received my Bachelor of Science degree in Mechanical Engineering from the University of Puerto Rico in 1972. I worked as a Manufacturing Engineer with Emerson Electric through 1974. I received a Masters degree in Business Administration from the University of California, Irvine in 1980, and have over 30 years of experience in the power industry in engineering, construction, and maintenance of fossil fired and nuclear power plants

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

A. The purpose of my testimony in this proceeding is to sponsor the non-Policy testimony in Exhibit Utilities-3, as identified in the Table of Contents.

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

A. Yes, it was.

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

A. Yes, I do.

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

A. Yes, it does.

Q. Does this conclude your qualifications and prepared testimony?

A. Yes, it does.

SAN DIEGO GAS & ELECTRIC COMPANY

QUALIFICATIONS OF MICHAEL L. DE MARCO

Q1. Please state your name, occupation and business address.

A1. My name is Michael L. De Marco, and I am employed by San Diego Gas & Electric Company (SDG&E) as Team Leader of the Nuclear Section in the Electric Project Development & Business Planning Department. My business address is 5000 Pacific Coast Highway, San Clemente, California 92672.

Q2. Briefly describe your areas of responsibility.

A2. My current responsibilities include representing SDG&E's ownership interests at SONGS. I assumed my current position in May 2007.

Q3. Please describe your educational and professional background.

A3. Prior to working for SDG&E, I worked for Southern California Edison. Previous positions relevant to my testimony include: Nuclear Plant Operator, SONGS (1989 – 2001), Technical Specialist, Nuclear Rate Regulation (2002 – 2003), Senior Financial Analyst, Energy Supply and Management (2003 – 2006), and Senior Project Manager, Power Procurement (2006 – 2007).

I received a Bachelor of Science degree in Workforce Education from Southern Illinois University at Carbondale in 1998 and a Master of Business Administration degree from the University of California, Irvine in 2001. I am a registered Project Management Professional with the Project Management Institute.

Q4. Have you previously testified before this Commission as an expert witness?

A4. No, I have not.

SAN DIEGO GAS & ELECTRIC COMPANY

QUALIFICATIONS OF MICHELLE A. SOMERVILLE

Q1. Please state your name, occupation and business address.

A1. My name is Michelle A. Somerville. I am employed by San Diego Gas & Electric Company (SDG&E), as a Regulatory Accounts Manager in the Tariffs and Regulatory Accounts Department. My business address is 8330 Century Park Court, San Diego, California 92123.

Q2. Briefly describe your areas of responsibility.

A2. My current responsibilities include managing the process for the development, implementation, and analysis of regulatory balancing and memorandum accounts. I assumed my current position in June 2007.

Q3. Please describe your educational and professional background.

A3. I received a Bachelors in Business Administration degree with an emphasis in accounting as well as a Masters in Professional Accounting from the University of Texas at Austin in 1992. I have been a Certified Public Accountant (CPA), licensed in the State of Texas, since 1994.

I have been employed with SDG&E and Sempra Energy since 2000. In addition to my current position in Regulatory Affairs, I served as the Capital Asset Management Supervisor from March 2005 to May 2007 where I supervised the process of recording and accounting for capital costs throughout the life of the asset including construction in process, asset identification, depreciation, and removal/retirement. I have also held senior analyst positions in the Business Planning Department at SDG&E (November 2002 – February 2004) and Internal Audit Department at Sempra Energy's corporate offices (April 2000 – November 2002).

Q4. Have you previously testified before this Commission as an expert witness?

A4. Yes, I have.

SAN DIEGO GAS & ELECTRIC COMPANY
QUALIFICATIONS AND PREPARED TESTIMONY
OF BRIAN M. NELSON

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

A. My name is Brian M. Nelson. I am employed by Sempra Energy as Senior Financial Analyst in the Pension & Trust Investments department. My business address is 101 Ash Street, San Diego, California 92101.

Q. Briefly describe your present responsibilities.

A. I am responsible for the investment management aspects of Sempra Energy's Nuclear Decommissioning Trusts and Employee 401(k) Savings Plans. In this role, I study and recommend strategic long-term asset allocation policy and specific investment strategies on the various asset pools listed above to our management.

Q. Briefly describe your educational and professional background.

A. I received a Bachelor of Science degree in Industrial and Systems Engineering from The Georgia Institute of Technology in 2002. Prior to joining Sempra Energy, I worked for a logistics company in Atlanta as Logistics Engineer and Financial Analyst. Upon joining Sempra Energy in 2005, I took the position of Financial Systems Administrator in the Corporate Planning department. In 2007, I became Senior Financial Analyst in the Pension & Trust Investments department. In the spring of 2008, I began the Masters of Business Administration program at San Diego State University and am currently enrolled in the program.

SAN DIEGO GAS & ELECTRIC COMPANY

QUALIFICATIONS OF RANDALL G. ROSE

Q1. Please state your name, occupation and business address.

A1. My name is Randall G. Rose. I am employed by Sempra Energy as a Tax Director for Sempra Energy utilities. My business address is 101 Ash Street, HQ-07, San Diego, California 92101.

Q2. Briefly describe your areas of responsibility.

A2. My current responsibilities include managing federal and state income tax compliance, reviewing tax accounting for the utilities, and preparing income tax calculations for regulatory filings.

Q3. Please describe your educational and professional background.

A3. I received a Bachelor's degree in Business Administration with an emphasis in Accounting from San Diego State University. I am a Certified Public Accountant (CPA), licensed in the State of California.

I have been employed by SDG&E and Sempra Energy since 1994. In addition to my current position as Director of Income Tax, I have served as Director of Tax Accounting and Regulatory Taxes, Manager of State Income Taxes, and Manager of Property and Sales Tax for SDG&E and Sempra Energy.

Prior to joining SDG&E, I served as a senior tax advisor to the elected member of the California State Board of Equalization from the 3rd District. In that function, I advised the board member on tax appeals cases and utility ad valorem tax assessments that came before the State Board of Equalization for administrative ruling.

Q4. Have you previously testified before this Commission as an expert witness?

A4. Yes, I have.

Appendix B

Appendix B

SOURCE: Global Insight Forecast
From 'The U.S. Economy - The 30-Year Focus', Fourth Quarter 2008

	S&P500 Price Return	S&P500 Dividend Yield	S&P500 Total Return	AAA Muni Bonds Yield	3 Mo T-Bill Yield	10 Yr T-Note Yield
2009	13.09%	2.64%	15.73%	4.32%	1.10%	3.69%
2010	11.98%	2.43%	14.41%	4.74%	2.87%	4.39%
2011	13.17%	2.24%	15.40%	5.42%	4.58%	5.44%
2012	10.55%	2.11%	12.66%	5.42%	4.59%	5.44%
2013	7.90%	2.04%	9.93%	5.42%	4.59%	5.44%
2014	7.41%	1.97%	9.38%	5.42%	4.59%	5.44%
2015	9.65%	1.88%	11.53%	5.42%	4.59%	5.44%
2016	8.28%	1.80%	10.08%	5.42%	4.59%	5.44%
2017	6.12%	1.76%	7.88%	5.42%	4.59%	5.44%
2018	5.11%	1.74%	6.84%	5.42%	4.59%	5.44%
2019	4.86%	1.72%	6.57%	5.42%	4.59%	5.44%
2020	4.98%	1.70%	6.68%	5.42%	4.59%	5.44%
2021	5.27%	1.66%	6.93%	5.42%	4.59%	5.44%
2022	5.04%	1.64%	6.67%	5.42%	4.59%	5.44%
2023	4.48%	1.62%	6.10%	5.42%	4.59%	5.44%
2024	4.86%	1.60%	6.46%	5.42%	4.59%	5.44%
2025	5.12%	1.58%	6.70%	5.42%	4.59%	5.44%
2026	5.51%	1.54%	7.05%	5.42%	4.59%	5.44%
2027	4.97%	1.52%	6.49%	5.42%	4.59%	5.44%
2028	4.80%	1.50%	6.30%	5.42%	4.59%	5.44%
2029	4.70%	1.48%	6.18%	5.42%	4.59%	5.44%
2030	4.63%	1.46%	6.09%	5.42%	4.59%	5.44%
2031	5.09%	1.44%	6.53%	5.42%	4.59%	5.44%
2032	4.82%	1.42%	6.24%	5.42%	4.59%	5.44%
2033	4.57%	1.40%	5.97%	5.42%	4.59%	5.44%
2034	4.79%	1.38%	6.18%	5.42%	4.59%	5.44%
2035	4.78%	1.36%	6.14%	5.42%	4.59%	5.44%
2036	4.96%	1.34%	6.31%	5.42%	4.59%	5.44%
2037	4.88%	1.33%	6.21%	5.42%	4.59%	5.44%
1 **AVG. RETURN (2009-2037)**	**6.43%**	**1.70%**	**8.13%**	**5.36%**	**4.41%**	**5.34%**

1

Appendix C

Appendix C

QUALIFIED TRUST

	Pre-Tax Return	Tax Rate	After-Tax Return
S&P500 PRICE RETURN	6.43%		
S&P 500 DIV. YIELD	1.70%		
S&P 500 TOTAL RETURN-SONGS 2&3*	8.13%	23.5%	6.22%
AAA MUNI YIELD	5.36%	7.07%	4.98%
3-MONTH T-BILLS	4.41%	20.00%	3.53%
10 YEAR TREASURY YIELD	5.34%	20.00%	4.27%

Portfolio Combination (Equities/10-Yr Treasury Bonds)

% Equities	Ratio	After Tax ROR	ROR Net of Fees**
0%	0:100	4.27%	4.11%
10%	10:90	4.47%	4.31%
20%	20:80	4.66%	4.50%
30%	30:70	4.86%	4.70%
40%	40:60	5.05%	4.89%
50%	50:50	5.25%	5.09%
60%	60:40	5.44%	5.28%
70%	70:30	5.63%	5.48%
80%	80:20	5.83%	5.67%
90%	90:10	6.02%	5.87%
100%	100:0	6.22%	6.06%

TAX RATES:

FEDERAL	20.00%
STATE	8.84%
COMBINED	27.07%
STATE	7.07%
(ADJUSTED FOR BENEFIT OF DEDUCTION FOR FEDERAL TAX LIABILITY)	

SAN ONOFRE 2&3:

Pre-Retirement Use (2009 - 2021): 5.28% -- 4.31%
Post-Retirement Use (2022 - 2047): 4.11% -- 3.53%

*S&P 500 After Tax Return Calculated as Follows:
Dividends taxed at combined rate, capital gains tax on price return and reinvested dividends
Assumed portfolio turnover of 20% annually
** Fees are assumed at 20 basis points before taxes

NONQUALIFIED TRUST

	Pre-Tax Return	Tax Rate	After-Tax Return
S&P500 PRICE RETURN	6.43%		
S&P 500 DIV. YIELD	1.70%		
S&P 500 TOTAL RETURN-SONGS 2&3*	8.13%	30.25%	5.67%
AAA MUNI YIELD	5.36%	8.84%	4.89%
3-MONTH T-BILLS	4.41%	35.00%	2.87%
10 YEAR TREASURY YIELD	5.34%	35.00%	3.47%

TAX RATES:

FEDERAL	35.00%
STATE***	8.84%
COMBINED	40.75%

(ADJUSTED FOR BENEFIT OF
DEDUCTION FOR FEDERAL TAX LIABILITY)

*S&P 500 After Tax Return Calculated as Follows:
Dividends taxed at combined rate adjusted for 70% federal dividend exclusion (18.14% effective tax rate), capital gains tax on price return and reinvested dividends assumes portfolio turnover of 20% per year
** Fees are assumed at 20 basis points before taxes
***SDG&E apportioned state tax rate

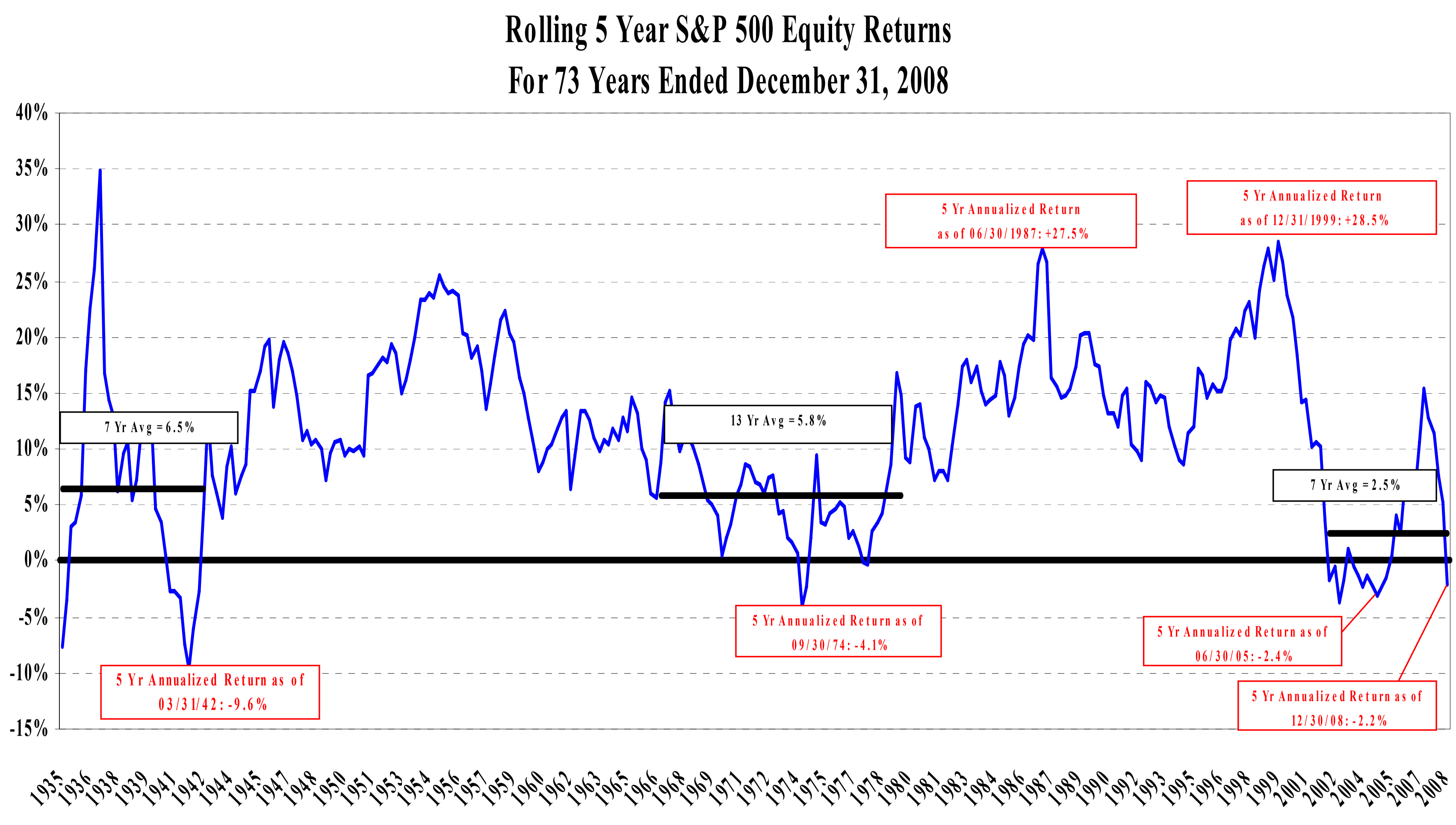
Portfolio Combination (Equities/AAA Municipals)

% Equities	Ratio	After Tax ROR	ROR Net of Fees**
0%	0:100	4.89%	4.70%
10%	10:90	4.96%	4.79%
20%	20:80	5.04%	4.87%
30%	30:70	5.12%	4.95%
40%	40:60	5.20%	5.03%
50%	50:50	5.28%	5.12%
60%	60:40	5.35%	5.20%
70%	70:30	5.43%	5.28%
80%	80:20	5.51%	5.36%
90%	90:10	5.59%	5.45%
100%	100:0	5.67%	5.53%

SAN ONOFRE 2&3:			
Pre-Retirement Use (2009 - 2021):	**5.20%**	--	**4.79%**
Post-Retirement Use (2022 - 2047):	**4.70%**	--	**2.87%**

Appendix D

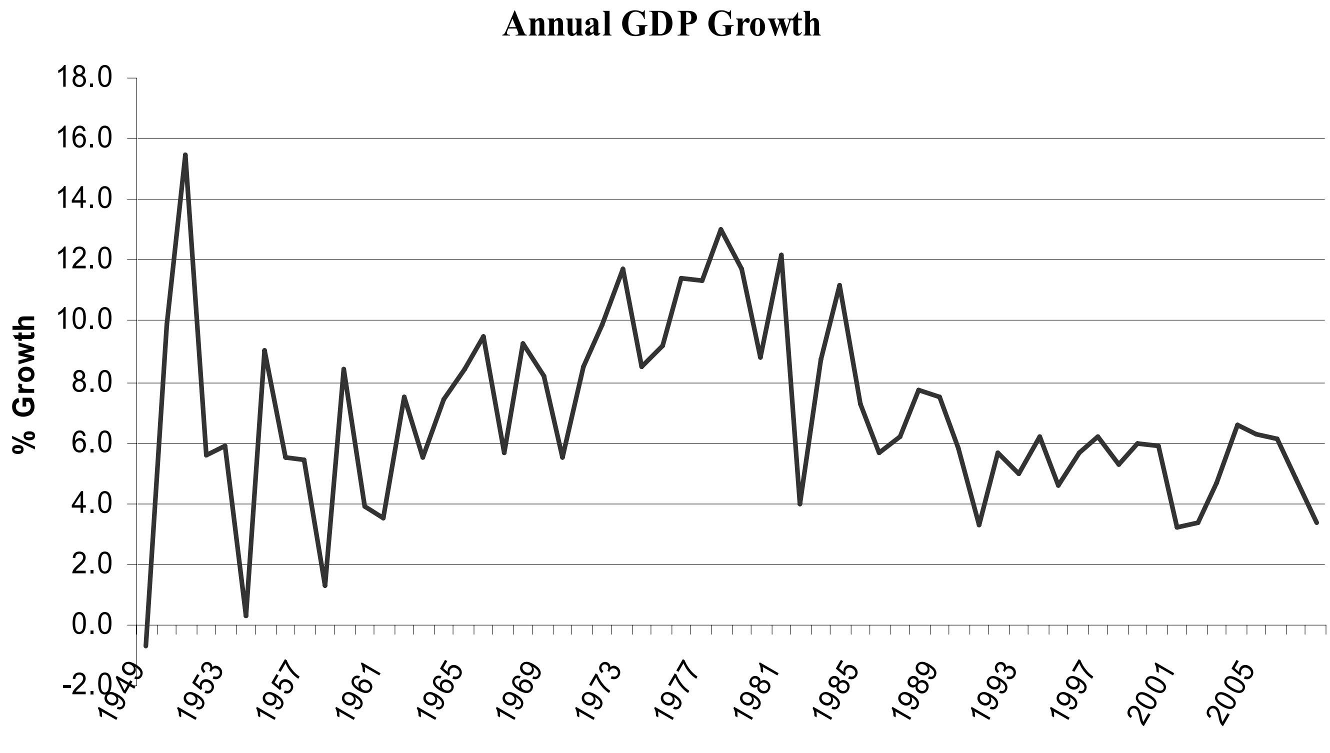
Appendix D



Rolling 5 Year S&P 500 Equity Returns
For 73 Years Ended December 31, 2008
40%
35%
30%
25%
20%
15%
10%
5%
0%
-5%
-10%
-15%
7 Yr Avg = 6.5%
13 Yr Avg = 5.8%
7 Yr Avg = 2.5%
5 Yr Annualized Return as of 03/31/42: -9.6%
5 Yr Annualized Return as of 09/30/74: -4.1%
5 Yr Annualized Return as of 06/30/1987: +27.5%
5 Yr Annualized Return as of 12/31/1999: +28.5%
5 Yr Annualized Return as of 06/30/05: -2.4%
5 Yr Annualized Return as of 12/30/08: -2.2%
1935 1936 1938 1939 1941 1942 1944 1945 1947 1948 1950 1951 1953 1954 1956 1957 1959 1960 1962 1963 1965 1966 1968 1969 1971 1972 1974 1975 1977 1978 1980 1981 1983 1984 1986 1987 1989 1990 1992 1993 1995 1996 1998 1999 2001 2002 2004 2005 2007 2008

Appendix E

Appendix E



Annual GDP Growth
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
-2.0
% Growth
1949
1953
1957
1961
1965
1969
1973
1977
1981
1985
1989
1993
1997
2001
2005

1

Appendix F

	FEDERAL	CALIFORNIA	TOTAL
SONGS I	3,954	2,277	**6,231**
SONGS II	22,458	7,122	**29,580**
SONGS III	6,903	7,425	**14,329**
PVNGS I	2,090	1,826	**3,916**
PVNGS II	2,122	1,853	**3,976**
PVNGS III	2,369	2,015	**4,384**
TOTAL	**39,897**	**22,518**	**62,416**

SCE QUALIFIED NUCLEAR DECOMM TRUSTS
TAX COMPLIANCE FILING/CALCULATION
TAX YEAR 2007

SONGS I - FEDERAL

Payment	Date Paid	Required Amount	Actual Payment Amount	Net Payment Over/(Under) Difference	Net Payment Over/(Under) Cumulative	Time Period	Total # of Days	Daily Rate of Return	Total Interest Due
1st QTR Est Tax	04/15/07	288,971	363,446	74,475	74,475	April 15th to June 14th	61	0.016%	727
2nd QTR Est Tax	06/15/07	288,971	309,000	20,029	94,504	June 15th to September 14th	92	0.016%	1,391
3rd QTR Est Tax	09/15/07	288,971	314,500	25,529	120,033	September 15th to December 14th	91	0.016%	1,748
4th QTR Est Tax	12/15/07	288,971	175,000	(113,971)	6,062	December 15th to March 15th	91	0.016%	88
		1,155,884	**1,161,946**	**6,062**					**3,954**

SONGS I - CALIFORNIA

Payment	Date Paid	Required Amount	Actual Payment Amount	Net Payment Over/(Under) Difference	Net Payment Over/(Under) Cumulative	Time Period	Total # of Days	Daily Rate of Return	Total Interest Due
1st QTR Est Tax	04/15/07	124,361	169,181	44,820	44,820	April 15th to June 14th	61	0.016%	437
2nd QTR Est Tax	06/15/07	124,360	129,000	4,640	49,460	June 15th to September 14th	92	0.016%	728
3rd QTR Est Tax	09/15/07	124,361	140,000	15,639	65,099	September 15th to December 14th	91	0.016%	948
4th QTR Est Tax	12/15/07	124,360	70,500	(53,860)	11,239	December 15th to March 15th	91	0.016%	164
		497,442	**508,681**	**11,239**					**2,277**

Required Amount	Actual Payment Amount	Net Payment Over/(Under) Difference	Net Payment Over/(Under) Cumulative	Time Period	Total # of Days	Daily Rate of Return	Total Interest Due
2,188,253	1,961,661	(226,592)	(226,592)	April 15th to June 14th	61	0.016%	(2,212)
2,188,253	2,562,500	374,247	147,655	June 15th to September 14th	92	0.016%	2,173
2,188,253	3,760,000	1,571,747	1,719,402	September 15th to December 14th	91	0.016%	25,034
2,188,253	294,500	(1,893,753)	(174,351)	December 15th to March 15th	91	0.016%	(2,539)
8,753,012	**8,578,661**	**(174,351)**					**22,458**

Required Amount	Actual Payment Amount	Net Payment Over/(Under) Difference	Net Payment Over/(Under) Cumulative	Time Period	Total # of Days	Daily Rate of Return	Total Interest Due
942,080	914,244	(27,836)	(27,836)	April 15th to June 14th	61	0.016%	(272)
942,080	1,088,500	146,420	118,584	June 15th to September 14th	92	0.016%	1,746
942,079	1,228,500	286,421	405,005	September 15th to December 14th	91	0.016%	5,897
942,080	520,000	(422,080)	(17,075)	December 15th to March 15th	91	0.016%	(249)
3,768,319	**3,751,244**	**(17,075)**					**7,122**

Required Amount	Actual Payment Amount	Net Payment Over/(Under) Difference	Net Payment Over/(Under) Cumulative	Time Period	Total # of Days	Daily Rate of Return	Total Interest Due
2,702,876	2,156,836	(546,040)	(546,040)	April 15th to June 14th	61	0.016%	(5,329)
2,702,876	3,434,500	731,624	185,584	June 15th to September 14th	92	0.016%	2,732
2,702,876	3,391,000	688,124	873,707	September 15th to December 14th	91	0.016%	12,721
2,702,876	1,608,000	(1,094,876)	(221,169)	December 15th to March 15th	91	0.016%	(3,220)
10,811,505	**10,590,336**	**(221,169)**					**6,903**

Required Amount	Actual Payment Amount	Net Payment Over/(Under) Difference	Net Payment Over/(Under) Cumulative	Time Period	Total # of Days	Daily Rate of Return	Total Interest Due
1,163,641	999,131	(164,510)	(164,510)	April 15th to June 14th	61	0.016%	(1,606)
1,163,641	1,477,000	313,359	148,849	June 15th to September 14th	92	0.016%	2,191
1,163,640	1,508,500	344,860	493,709	September 15th to December 14th	91	0.016%	7,188
1,163,641	646,000	(517,641)	(23,932)	December 15th to March 15th	91	0.016%	(348)
4,654,563	**4,630,631**	**(23,932)**					**7,425**

Required Amount	Actual Payment Amount	Net Payment Over/(Under) Difference	Net Payment Over/(Under) Cumulative	Time Period	Total # of Days	Daily Rate of Return	Total Interest Due
540,006	480,390	(59,616)	(59,616)	April 15th to June 14th	61	0.016%	(582)
540,006	637,000	96,995	37,379	June 15th to September 14th	92	0.016%	550
540,006	687,500	147,495	184,874	September 15th to December 14th	91	0.016%	2,692
540,006	316,000	(224,006)	(39,132)	December 15th to March 15th	91	0.016%	(570)
2,160,022	**2,120,890**	**(39,132)**					**2,090**

Required Amount	Actual Payment Amount	Net Payment Over/(Under) Difference	Net Payment Over/(Under) Cumulative	Time Period	Total # of Days	Daily Rate of Return	Total Interest Due
232,475	224,285	(8,190)	(8,190)	April 15th to June 14th	61	0.016%	(80)
232,475	270,500	38,025	29,835	June 15th to September 14th	92	0.016%	439
232,475	306,000	73,525	103,360	September 15th to December 14th	91	0.016%	1,505
232,475	126,500	(105,975)	(2,615)	December 15th to March 15th	91	0.016%	(38)
929,900	**927,285**	**(2,615)**					**1,826**

Required Amount	Actual Payment Amount	Net Payment Over/(Under) Difference	Net Payment Over/(Under) Cumulative	Time Period	Total # of Days	Daily Rate of Return	Total Interest Due
549,689	487,428	(62,261)	(62,261)	April 15th to June 14th	61	0.016%	(608)
549,689	649,500	99,811	37,550	June 15th to September 14th	92	0.016%	553
549,689	701,500	151,811	189,360	September 15th to December 14th	91	0.016%	2,757
549,689	320,500	(229,189)	(39,829)	December 15th to March 15th	91	0.016%	(580)
2,198,757	**2,158,928**	**(39,829)**					**2,122**

Required Amount	Actual Payment Amount	Net Payment Over/(Under) Difference	Net Payment Over/(Under) Cumulative	Time Period	Total # of Days	Daily Rate of Return	Total Interest Due
236,644	227,060	(9,584)	(9,584)	April 15th to June 14th	61	0.016%	(94)
236,644	276,500	39,856	30,272	June 15th to September 14th	92	0.016%	446
236,644	312,000	75,356	105,628	September 15th to December 14th	91	0.016%	1,538
236,643	128,500	(108,143)	(2,515)	December 15th to March 15th	91	0.016%	(37)
946,575	**944,060**	**(2,515)**					**1,853**

Required Amount	Actual Payment Amount	Net Payment Over/(Under) Difference	Net Payment Over/(Under) Cumulative	Time Period	Total # of Days	Daily Rate of Return	Total Interest Due
582,854	521,246	(61,608)	(61,608)	April 15th to June 14th	61	0.016%	(601)
582,854	687,500	104,647	43,039	June 15th to September 14th	92	0.016%	634
582,854	741,500	158,647	201,686	September 15th to December 14th	91	0.016%	2,937
582,854	340,000	(242,854)	(41,168)	December 15th to March 15th	91	0.016%	(599)
2,331,414	**2,290,246**	**(41,168)**					**2,369**

Required Amount	Actual Payment Amount	Net Payment Over/(Under) Difference	Net Payment Over/(Under) Cumulative	Time Period	Total # of Days	Daily Rate of Return	Total Interest Due
250,918	243,016	(7,902)	(7,902)	April 15th to June 14th	61	0.016%	(77)
250,918	292,000	41,083	33,181	June 15th to September 14th	92	0.016%	488
250,918	330,000	79,083	112,264	September 15th to December 14th	91	0.016%	1,635
250,918	136,500	(114,418)	(2,154)	December 15th to March 15th	91	0.016%	(31)
1,003,670	**1,001,516**	**(2,154)**					**2,015**

Required Amount	Actual Payment Amount	Net Payment Over/(Under) Difference	Net Payment Over/(Under) Cumulative	Time Period	Total # of Days	Daily Rate of Return	Total Interest Due
6,852,649	5,971,007	(881,642)	(881,642)	April 15th to June 14th	61	0.016%	(8,605)
6,852,649	8,280,000	1,427,352	545,710	June 15th to September 14th	92	0.016%	8,033
6,852,649	9,596,000	2,743,352	3,289,062	September 15th to December 14th	91	0.016%	47,889
6,852,649	3,054,000	(3,798,649)	(509,587)	December 15th to March 15th	91	0.016%	(7,420)
27,410,594	**26,901,007**	**(509,587)**					**39,897**

Required Amount	Actual Payment Amount	Net Payment Over/(Under) Difference	Net Payment Over/(Under) Cumulative	Time Period	Total # of Days	Daily Rate of Return	Total Interest Due
2,950,119	2,776,917	(173,202)	(173,202)	April 15th to June 14th	61	0.016%	(1,690)
2,950,118	3,533,500	583,383	410,181	June 15th to September 14th	92	0.016%	6,038
2,950,117	3,825,000	874,884	1,285,065	September 15th to December 14th	91	0.016%	18,711
2,950,117	1,628,000	(1,322,117)	(37,052)	December 15th to March 15th	91	0.016%	(539)
11,800,469	**11,763,417**	**(37,052)**					**22,518**

62,416

Appendix G

1. The Company has included in its cost of service, annual decommissioning costs for its Nuclear Generating Stations in the amount of:

Line No.	Unit	Qualified ($000)	Nonqualified ($000)	Total ($000)	For Years
1	SONGS 1	-	-	-	2011 - 2014
2	SONGS 2	35,637	1,478	37,115	2011 - 2022
3	SONGS 3	27,421	-	27,421	2011 - 2022
4	PVNGS 1	-	-	-	2011 - 2024
5	PVNGS 2	-	-	-	2011 - 2025
6	PVNGS 3	-	-	-	2011 - 2027
7	Total	63,058	1,478	64,537	

2. All units, except for SONGS 1, shall be decommissioned using the prompt removal and dismantlement method. Decommissioning of SONGS 1 began in 1999.

3. Based on SCE's site-specific decommissioning cost estimate for SONGS 2 & 3 prepared by ABZ, Inc. and revisions made to Arizona Public Service Company's site specific decommissioning cost study for PVNGS by TLG, SCE's share of the total current estimated cost of decommissioning is

Line No.	Unit		Cost ($000)
1	SONGS 1	(in 2008$)	147,491
2	SONGS 2	(in 2008$)	1,366,400
3	SONGS 3	(in 2008$)	1,426,122
4	PVNGS 1	(in 2007$)	221,117
5	PVNGS 2	(in 2007$)	233,362
6	PVNGS 3	(in 2007$)	254,212

4. For SONGS 2 & 3, the after-tax rate of return assumed to be earned on deposits in a qualified decommissioning reserve fund is 5.29% during operation and 4.13% post operation, compounded annually. Similarly, for Palo Verde units, the after-tax rate of return assumed to be earned on deposits in a qualified decommissioning reserve fund is

5.30% during operation and 4.13% post operation. Provided below is a breakdown of the projected after-tax trust fund returns:

Table VI-13
After-Tax Trust Fund Returns Employed by SCE

	Qualified Trust	**Nonqualified Trust**
SONGS 2&3 (2009 through 2017)	5.29%	4.94% (SONGS 2 only)
SONGS 2&3 (2018/2019/2020/2021)	5.06%/4.83%/4.59%/4.36%	4.78%/4.63%/4.47%/4.32% (SONGS 2 only)
SONGS 2&3 (Post retirement)	4.13%	4.16% (SONGS 2 only)
Palo Verde (2009 through five years before shutdown)	5.30%	Not Applicable
Palo Verde (Four years before shutdown through one year before shutdown)	5.07%/4.83%/4.60%/4.36%	Not Applicable
Palo Verde (Post retirement)	4.13%	Not Applicable

5. Using an escalation factor based on the most recent DRI forecasts in the record, using weighted averages and no separate contingency factor and an after-tax rate of return provided above, SCE's share of the total future estimated cost of decommissioning in retirement year dollars is:

Line No.	Unit	Cost ($000)
1	SONGS 1	
2	SONGS 2	2,177,373
3	SONGS 3	2,277,797
4	PVNGS 1	400,255
5	PVNGS 2	444,548
6	PVNGS 3	519,028

6. Decommissioning costs collected from ratepayers shall be deposited by the Company in an external trust fund at least as frequently as every quarter.

7. The units will no longer be included in the Company's rate base when retired and decommissioning of the units are estimated to be substantially completed as follows:

Line No.	Unit	Retirement	Decom Completed
1	SONGS 1	Sep. 1992	2053

2	SONGS 2	Oct. 2022	2052
3	SONGS 3	Oct. 2023	2053
4	PVNGS 1	Dec. 2024	2053
5	PVNGS 2	Dec. 2025	2053
6	PVNGS 3	Mar. 2027	2053

8. The decommissioning costs for the units are expected to be incurred as follows (in thousands of nominal dollars):

SOUTHERN CALIFORNIA EDISON COMPANY

Decommissioning costs for the units are expected to be incurred as follows (In thousands of nominal dollars):

Amounts provided are SCE's share in the cash expenditures from the current decommissioning filing for 2009.

Line No.	Year	SONGS 2	SOGNS 3	PVNGS 1	PVNGS 2	PVNGS 3
1	2018	0	0	0	0	0
2	2019	0	0	0	0	0
3	2020	2,004	124	122	0	0
4	2021	2,187	740	209	0	0
5	2022	99,264	17,353	209	0	0
6	2023	108,105	100,450	1,137	0	0
7	2024	86,537	97,257	1,798	0	0
8	2025	85,377	85,394	10,789	42	42
9	2026	85,377	85,394	29,438	35,341	1,413
10	2027	85,377	85,394	38,542	39,900	5,941
11	2028	85,377	85,394	32,073	40,840	41,213
12	2029	85,377	85,394	23,397	21,108	41,748
13	2030	85,377	85,394	23,573	21,284	35,443
14	2031	85,377	85,394	17,139	20,860	25,937
15	2032	85,377	85,394	2,477	14,312	26,233
16	2033	85,377	85,394	2,325	2,331	25,197
17	2034	58,305	82,401	6,567	6,489	13,808
18	2035	55,443	65,231	8,388	8,234	11,504
19	2036	55,247	65,231	7,253	7,093	10,537
20	2037	7,242	50,416	9,342	9,188	8,858
21	2038	7,242	6,897	259	259	259

22	2039	7,242	6,897	259	259	259
23	2040	7,242	6,897	259	259	259
24	2041	7,242	6,897	259	259	259
25	2042	7,242	6,897	259	259	259
26	2043	7,242	6,897	259	259	259
27	2044	7,242	6,897	259	259	259
28	2045	7,242	6,897	259	259	259
29	2046	7,242	6,897	259	259	259
30	2047	7,242	6,897	259	259	259
31	2048	7,242	6,897	259	259	259
32	2049	7,242	6,897	259	259	259
33	2050	7,242	6,897	259	259	259
34	2051	8,767	9,998	259	259	259
35	2052	20,760	41,219	1,379	1,379	1,379
36	2053	0	37,505	1,332	1,332	1,332
37	2054	0	0	0	0	0