Exhibit Number	:	
Commissioner	:	C.W. Wood
Adm. Law Judge	:	M.S. Wetzel
Witnesses	:	Various

CALIFORNIA PUBLIC UTILITIES COMMISSION

ORA
Office of Ratepayer Advocates

REPORT ON THE RESULTS OF OPERATIONS

FOR

SOUTHERN CALIFORNIA EDISON COMPANY'S

GENERAL RATE CASE

Test Year 2003

VOLUME 1

REDACTED – PUBLIC VERSION

Application No. 02-05-004

San Francisco, California
October 17, 2002

EXECUTIVE SUMMARY

Southern California Edison's (SCE) rates are among the highest in the nation. These high electric rates can have enormous economic impacts on the businesses and citizens of California. Any additional increase will only serve to further contribute to sustaining the high electric rates and the external, economic impacts of those high rates. The GRC proceeding addresses one component of SCE's rates (i.e. base rates) that comprises about 20 -- 25 percent of the total electric rate. However, this one component of rates is fully regulated by, and is completely within the purview of, the Commission. The Office of Ratepayer Advocates (ORA) has developed a series of proposals and recommendations which present the Commission with the opportunity to reduce SCE's electric rates by $171,954,000, rather than raise rates by $286,414,000 as requested by the company, while at the same time, maintaining or improving the quality of service to customers.

RATES

ORA has conducted an independent analysis of the request of the Southern California Edison Company (SCE) for a test year 2003 general rate increase of $286,414,000, as well as the company's post test year ratemaking proposal which includes an estimated rate decrease of $78,239,000 for 2004 and a rate increase of $115,899,000 for 2005. ORA recommends that the Commission reduce SCE's rates for 2003 by $171,954,000. With respect to post test year ratemaking, ORA recommends that rates be reduced by $108,000,000 in 2004 and increased by only $44,432,000 in 2005.

The difference between SCE's requested rate levels and ORA's recommendations are caused by differences in a number of cost of service elements including depreciation expense, capital additions, and a variety of expenses related to operating and maintaing SCE's retained generation facilities and its electric distribution operations.

CUSTOMER SERVICE

ORA recommends that the Commission adopt a series of service guarantees that would reimburse individual customers by crediting $50 to their bill if SCE fails to meet any of eight specific service related commitments (e.g., restoration of service, resolution of complaints and agreed to appointment times).

Regarding customer payment options, ORA recommends SCE implement changes needed to improve Authorized Payment Agency services, and to expand the Authorized Payment Agency network where needed. In addition, ORA recommends SCE undertake an education program to migrate customers away from in-person payments to lower cost payment options. Finally, ORA recommends that SCE evaluate the feasibility of replacing or supplementing Authorized Payment Agencies and Local Business Offices with unmanned payments processing stations.

ORA recommends that SCE's proposal to implement a late payment charge for residential customers be rejected by the Commission. Regarding other customer charges such as service establishment, ORA recommends that the Commission authorize lower increases than that requested by SCE.

EMPLOYEE SAFETY

Employee safety should be a top priority for the company. Under performance based ratemaking, SCE earned substantial rewards in reducing the OSHA reportable injury rate. SCE should be encouraged to maintain that reduced level. ORA recommends that a penalty only incentive mechanism be established for the employee safety measure. SCE would be liable for a maximum penalty of $5,000,000 for exceeding the employee safety benchmark based on the frequency of OSHA recordable injuries and illnesses.

ORA will issue additional testimony on December 6, 2002 that will address, among other things, electric system reliability, including SCE's proposed reliability performance incentive measures; SCE's distribution maintenance practices and. additional customer service related issues, including SCE's proposed customer satisfaction performance incentive measure

OFFICE OF RATEPAYER ADVOCATES
REPORT ON THE RESULTS OF OPERATIONS
FOR SOUTHERN CALIFORNIA EDISON COMPANY'S
TEST YEAR 2003 GENERAL RATE CASE

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CHAPTER 1

INTRODUCTION

I. SUMMARY

The Office of Ratepayer Advocates (ORA) prepared this report in response to Application 02-05-004, the request of Southern California Edison Company (SCE) for a test year 2003 General Rate Case (GRC). SCE requests that the California Public Utilities Commission (CPUC or Commission) authorize a base rate revenue level of $3,064,942,000 for the year 2003[1]. This represents an increase of $286,414,000 over estimated revenues generated by rates that otherwise would be in effect for that year. Rates will already include an approximate $64 million increase for 2003 related to SCE's current performance based ratemaking (PBR) mechanism. After conducting an independent analysis of the request, ORA recommends that the Commission authorize a base revenue level of $2,620,045,000 for the test year. Chapter 2 provides an overview of problems related to high electric rates in California. ORA's GRC proposals present the Commission with the opportunity to reduce SCE's electric rates by $171,954,000, rather than raise rates by $286,414,000 as requested by the company.

In addition to requesting an increase for the test year 2003 base revenue level, SCE proposes a post test year ratemaking mechanism to operate between test year 2003 and SCE's next GRC proceeding. Based on this proposal, SCE requests a revenue reduction of $78,239,000 for the year 2004. The reduction is a net result of cost increases over estimated test year 2003 levels offset by the effect of returning SCE's share of the San Onofre Nuclear Generating Station (SONGS) to traditional cost of service ratemaking in

[1] The test year GRC revenue and cost components are related to (1) SCE's non-fuel related operating costs for its retained generation which excludes consideration of fuel, purchased power costs, PROACT recovery and the SONGS ICIP, (2) non-ISO transmission, and (3) distribution. While SONGS 1 shutdown costs are being addressed in this GRC, the nuclear decommissioning costs for SONGS and PVNGS are addressed in separate triennial proceedings. With limited exceptions, public purpose program costs are also not part of this GRC. A complete list of total company and GRC related cost components are shown on Table V-8 of Exhibit SCE 8 (page 43).

2004. For the year 2005, SCE requests a revenue an increase of $115,889,000 over the 2004 level.

ORA instead recommends certain modifications to SCE's proposed post test year ratemaking mechanism which, when combined with recommendations for test year 2003, results in a rate decrease amounting to $108,815,000 in 2004 (over ORA's recommended test year 2003 levels) and a rate increase of $44,432,000 in 2005 (over ORA's recommended level for the year 2004).

A table summarizing the 2003 to 2005 rate changes recommended by ORA and those requested by SCE is contained at the end of this section. Appendix A identifies the differences between ORA and SCE regarding the various revenue and cost components, which are the basis for determining the rates in this case.

With regard to issues other than those related to the cost of service[2]:

1. ORA recommends that the Commission adopt a series of service guarantees that would reimburse individual customers by crediting $50 to their bill if SCE fails to meet any of eight specific service related commitments (e.g., restoration of service, resolution of complaints and agreed to appointment times). Reimbursements paid to individuals should be shareholder funded. (See Chapter 12)

2. Regarding customer payment options, ORA recommends SCE implement changes needed to improve Authorized Payment Agency services, and to expand the Authorized Payment Agency network where needed. In addition, ORA recommends SCE undertake an education program to migrate customers away from in-person payments to lower cost payment

[2] In the August 8, 2002 Assigned Commissioner's Ruling that established the scope, schedule and procedures for this proceeding, the Commission adopted a scope for this GRC that includes issue areas suggested in an Energy Division briefing paper. In addition to recommendations regarding the reasonableness of SCE's rate increase request, the topics of investment planning, safety and reliability, customer service and utility operations were identified for special consideration in this proceeding. ORA believes that its testimony at this time, in conjunction with supplemental testimony to be mailed on December 6, 2002, will address the full scope of issues identified for this proceeding.

options. Finally, ORA recommends that SCE evaluate the feasibility of replacing or supplementing Authorized Payment Agencies and Local Business Offices with unmanned payments processing stations. (See Chapter 13)

3. ORA recommends that the Commission reject SCE's proposal to implement a late payment charge for residential customers. Regarding other customer charges such as those for service establishment, ORA recommends that the Commission authorize lower increases than that requested by SCE. (See Chapter 10)

4. In response to SCE's proposal for incentives to maintain service quality, ORA recommends that a penalty only incentive be established for the employee safety measure. SCE would be liable for a maximum penalty of $5,000,000 for exceeding the employee safety benchmark based on the frequency of OSHA recordable injuries and illnesses. (See Chapter 14-D)

At this time, ORA's GRC showing consists of this Results of Operations Report and separate reports on the Results of Examination, Total Factor Productivity and Qualifications of Witnesses. ORA has begun a review of supplemental testimony filed by SCE on October 1, 2002 in the areas of investment planning and utility operations as directed in the Assigned Commissioner's Ruling of August 8, 2002 as well as the reasonableness of certain 1997 and 1998 capital additions for non-nuclear generating plant as directed in an administrative law judges ruling (A.99-04-024/A.02-05-004/I.02-06-002) dated September 9, 2002. ORA intends to respond to supplemental testimony on December 6, 2002 as scheduled in both rulings. At that time, ORA will also distribute additional testimony related to electric system reliability, customer service/consumer treatment and distribution maintenance practices, all of which were also addressed in SCE's October 1, 2002 filing.

Table 1-A

Revenue Change Summary for 2003 - 2005

(Dollars in thousands)

.	ORA	SCE	SCE>ORA
Test Year 2003			
Present Rate Revenues[3]	$2,791,999	$2,778,528	$ (13,471)
Test Year Revenues	2,620,045	3,064,942	444,897
Increase (decrease)[4]	(171,954)	286,414	458,368
% Increase (decrease)	(6.2%)	10.6%	
Post Test Year 2004			
Present Rate Revenues[5]	$3,127,488	$3,580,453	$452,965
Post Test Year Revenues	3,018,673	3,502,214	483,541
Increase (decrease)	(108,815)	(78,239)	30,576
% Increase (decrease)	(3.5%)	(2.6%)	
Post Test Year 2005			
Present Rate Revenues	$3,088,119	$3,582,784	$494,655
Post Test Year Revenues	3,132,551	3,698,683	566,132
Increase (decrease)	44,432	115,899	71,467
% Increase (decrease)	1.4%	4.6%	

[3] Present rate revenues include an estimated increase of $64,633,000 for 2003 related to SCE's current distribution PBR mechanism that was authorized by D.02-04-055. The increase is scheduled for January 1, 2003. ORA used the same present rate assumptions as did SCE regarding PBR as well as URG. Differences in 2003 present rate revenue estimates are caused by differences in estimated sales for 2003.

[4] As part of a settlement between the Commission and SCE regarding litigation pending in federal court over the filed rate doctrine, settlement rates and a Procurement Related Obligations Account (PROACT) were established. The result is that SCE's electric rates will not change until the end of the rate repayment period. At that point, GRC related increases or decreases would be reflected in higher or lower rates. Until that time, they will affect the length of the repayment period.

[5] Present rates for 2004 include those associated with the SONGS ICIP since the ICIP will end 12/31/03 and SONGS will be included in GRC related base revenues for the years 2004 and 2005. SCE estimates that the 2004 present rate revenues associated with the non-fuel portion of the SONGS ICIP amount to $459,932,000.

II. BACKGROUND

SCE's last GRC was for test year 1995. Rates related to that filing became effective January 26, 1996 (D.96-01-011). SCE's request for the Commission to adopt a performance based ratemaking (PBR) mechanism was implemented by D.96-09-092. That decision authorized a PBR mechanism to begin in 1997 and continue through the year 2001. On July 17, 2000, SCE tendered a Notice of Intent (NOI) to file a general rate case application for test year 2002. In accordance with the Commission's Rate Case Plan, ORA issued its deficiency notice on August 11, 2000. SCE corrected the deficiencies and the Commission's Executive Director accepted the NOI for filing on September 13, 2000. By the rate case plan schedule, SCE's GRC application was due to be filed on November 13, 2000. SCE never filed that application. Apparently due to the impacts of the energy crisis that began during 2000, SCE decided not to file a GRC application. SCE pursued remedies to correct its financial problems and as a result of a pending agreement with the State of California, requested that it be allowed to file a test year 2003 GRC (motion filed by SCE on May 1, 2001) and that its PBR be extended until superseded by the test year 2003 GRC (Petition for modification of D.96-09-092, filed by SCE on May 14, 2001). On June 14, 2001, the Commission issued D.01-06-038, which extended SCE's PBR mechanism until superseded by its next GRC and D.01-06-039, which granted SCE's request to file a test year 2003 GRC. SCE was to tender the NOI no later than August 15, 2001. On April 25, 2002, the Commission issued D.02-04-055, which implemented certain changes to SCE's existing PBR mechanism.

On December 17, 2001, after several delays, SCE tendered a Notice of Intent (NOI) to file a general rate case application for test year 2003. ORA issued its deficiency notice on January 11, 2002. SCE corrected the deficiencies and the Commission's Executive Director accepted the NOI for filing on February 13, 2002. On May 3, 2002, filed the related application (A.02-05-004) to which ORA is now responding with the issuance of its reports. ORA is filing the majority of its testimony today as scheduled in the Assigned Commissioner's Ruling of August 8, 2002. In a separate motion, ORA is also requesting to be allowed to file additional testimony in the areas of consumer

treatment and distribution maintenance practices on December 6, 2002. That filing would then be concurrent with the issuance of ORA's supplemental testimony related to investment planning, utility operations and the reasonableness of certain 1997 and 1998 capital additions for non-nuclear generating plant[6].

III. ORA'S ANALYSIS

ORA's team for this case consists of 27 persons to handle the project management, legal and analytical responsibilities that are central to processing and analyzing an energy general rate case. This includes two consultants who have been retained to assist in the evaluation of SCE's consumer treatment and distribution maintenance practices. It also includes four ORA staff members who conducted an on-site audit of SCE's recorded operation and maintenance expenses, administrative and general expenses, plant in service and affiliate transactions (see ORA's Report on the Results of Examination). The numerous policy and cost issues raised in this proceeding are the responsibility of ORA staff with varying educational backgrounds in engineering, economics, policy and finance (see Qualifications of ORA Witnesses).

SCE's test year 2003 GRC application was accompanied by 32 volumes of testimony and three boxes of supporting workpapers. The company's response to ORA's master data request filled another four boxes. In the process of its investigation and analysis, ORA issued over 200 data requests in addition to numerous on-site and supplemental data requests by the auditors. As indicated above, the results of ORA's efforts are significant differences with SCE regarding base rate changes for the years 2003, 2004 and 2005. A summary of differences is included as Appendix A to this chapter.

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[6] The Assigned Commissioner's Ruling of August 8, 2002 provided a December 6, 2002 filing date for ORA and other parties to file testimony addressing SCE's October 1, 2002 supplemental testimony, which addresses certain issues related to investment planning and utility operations. In A.99-04-024/A.02-05-004/I.02-06-002, the September 9, 2002 Administrative Law Judge Ruing ruled that, in A.02-05-004, SCE's test year 2003 GRC proceeding, SCE should serve testimony regarding certain 1997 and 1998 capital additions related to non-nuclear generation plant, and ORA and other interveners could serve responsive testimony on December 6, 2002

At this time, ORA's GRC showing consists of the following testimony:

1. Report on the Results of Operations for Southern California Edison Company's General Rate Case
2. Report on the Results of Examination for Southern California Edison Company's General Rate Case
3. Report on Total Factor productivity for Southern California Edison Company's General Rate Case
4. Qualifications of Witnesses for Southern California Edison Company's General Rate Case

ORA will issue additional testimony on December 6, 2002 on the following subjects:

1. Customer Service/Consumer Treatment (including an analysis of SCE's proposed customer satisfaction incentive mechanism)
2. Electric System Reliability (including an analysis of SCE's proposed reliability incentive mechanism)
3. Distribution Maintenance Practices
4. Investment Planning (in response to SCE's October 1, 2002 supplemental testimony)
5. Utility Operations (in response to SCE's October 1, 2002 supplemental testimony)
6. Reasonableness of Certain 1997 and 1998 Capital Additions (in response to SCE's October 1, 2002 supplemental testimony)

APPENDIX A

SUMMARY OF DIFFERENCES BETWEEN ORA AND SCE

This appendix lists the major policy and dollar differences between ORA and SCE with respect to the various estimates of revenues, expenses and capital related costs.

1. Based on the most recent CPUC adopted methodology for allocating costs between the CPUC and FERC jurisdictions, ORA allocates more administrative and general expenses and more general and intangible plant to the FERC jurisdiction than did SCE. The resulting revenue requirement difference between the two methodologies results in an approximate $22,000,000 reduction to SCE's test year request.

2. ORA estimates higher sales to residential and commercial customers. In total, ORA's sales estimate exceeds SCE's estimate by 395 Gwh for the test year. The effect of the related increased sales revenues reduces SCE's proposed increase for test year 2003 by $13,471,000.

3. ORA estimates slightly lower labor and non-labor cost escalation, from base year 2000 to test year 2003, than did SCE. The effect of that difference is reflected in the differences for the various expense categories listed below.

4. For production expenses, other than SONGS, ORA adjustments of $1,552,000 for PVNGS, $9,211,000 related to coal facilities and $2,326,000 related to hydro facilities result in an approximate $13,090,000 reduction to SCE's test year request.

5. For production expenses related to SONGS, ORA adjustments result in an approximate $19,400,000 reduction to SCE's post test year 2004 request.

6. For transmission expenses, ORA adjustments to Accounts 568 and 571, due to differences in estimating methodologies, result in an approximate $900,000 reduction to SCE's test year request.

7. For distribution expenses, ORA adjustments to Accounts 582, 588, 591, 594 and 598, due to a combination of using more recent data and using historic averages instead of budgets, result in an approximate $6,600,000 reduction to SCE's test year request.

8. For customer accounts expenses, ORA adjustments result in an approximate $900,000 reduction to SCE's test year request. ORA also estimates a slightly lower uncollectibles rate of .311% when compared to SCE's estimate of .326%.

9. ORA recommends that SCE's proposal to institute a late payment charge for residential customers be rejected. ORA also recommends lesser increases for customer charges than that proposed by SCE.

10. ORA recommends that the Commission adopt a series of service guarantees that would reimburse individual customers by crediting $50 to their bill if SCE fails to meet any of eight specific service related commitments (e.g., restoration of service, resolution of complaints and agreed to appointment times). Reimbursements paid to individuals should be shareholder funded.

11. Regarding customer payment options, ORA recommends SCE implement changes needed to improve Authorized Payment Agency services, and to expand the Authorized Payment Agency network where needed. In addition, ORA recommends SCE undertake an education program to migrate customers away from in-person payments to lower cost payment options. Finally, ORA recommends that SCE evaluate the feasibility of replacing or supplementing Authorized Payment Agencies and Local Business Offices with unmanned payments processing stations.

12. For customer service and information expenses, ORA adjustments related to public goods charge funding and air conditioner cycling devices result in an approximate $5,100,000 reduction to SCE's test year request.

13. Regarding employee safety performance standards, ORA recommends that there be penalties only, in contrast to SCE's proposal for both rewards and penalties.

14. ORA recommends that costs related to SCE's results sharing program be shared equally between the shareholders and ratepayers as opposed to SCE's proposal for 100% ratepayer funding of $80,884,000. ORA also estimates that the results sharing program payout will be $22,712,000 less than that estimated by SCE. The net effect reduces the need for SCE's proposed increase for test year 2003 by $51,798,000.

15. For pensions and benefits, ORA estimates that there is no need for pension contributions in 2003. This results in an approximate $23,600,000 reduction to SCE's test year request. Other pension and benefit adjustments reduce SCE's proposed increase by approximately $5,800,000.

16. Due to the fact that SCE overcollected for post-retirement benefits other than pensions during the years 20000 and 2001, ORA recommends that SCE be ordered to refund $117,000,000 to ratepayers. The refund can be effectuated as a credit to SCE's customers' bills.

17. For administrative and general expenses, in areas other than pensions & benefits and results sharing, ORA recommends adjustments amounting to $4,300,000 for financial organizations; $6,600,000 for legal and regulatory; $2,700,000 for shared services; $10,600,000 for information technology$2,900,000 for human resources; $6,500,000 for public affairs and corporate communication and $2,400,000 for QF and energy supply and management. These recommendations reduce the need for SCE's proposed increase for test year 2003 by approximately $36,000,000.

18. ORA estimates less labor expenses than did SCE. For that reason, ORA's estimate of payroll taxes is approximately $8,000,000 lower than SCE's estimate.

19. ORA incorporated recorded plant information for the year 2001. SCE's request is based on recorded plant data through the end of 2000. ORA's recommendation

also includes the effect of recent changes in federal tax law related to the depreciation of certain capital assets. The more recent information for plant and taxes incorporated in ORA's estimates reduces the need for SCE's proposed increase for test year 2003 by approximately $40,000,000.

20. ORA combined analyses of specific plant budget items and historic spending patterns to estimate plant additions for the years 2002 and 2003. ORA estimated gross plant additions amounting to $658,462,000 for 2002 and $731,013,000 for 2003. These estimates are lower than SCE's estimates by $221,722,000 for 2002 and $316,155,000 for 2003. The revenue requirement effect of these adjustments lowers the need for SCE's requested increase by approximately $90,000,000.

21. ORA adjustments to working capital reduce rate base by approximately $8,000,000 and thus reduce SCE's rate request by approximately $1,000,000..

22. For depreciation expense, ORA recommends that SCE should be required to use the current depreciation rates rather than the new rates that it proposes. The rates for cost of removal are excessive and the question of appropriate ratemaking for cost of removal should be explored by the Commission through the investigation (OII) process. Regarding the depreciable life of SONGS, ORA recommends that the remaining license life be used rather than the reduced life proposed by SCE. ORA also recommends that easements should not be amortized as proposed by SCE. Depreciation expense is also lower due to ORA's lower plant estimates. These adjustments reduce the need for SCE's proposed increase for test year 2003 by approximately $137,000,000.

23. ORA's estimates for post test year capital additions are based primarily on an analysis of recorded annual plant additions from 1992 through 2001 as well as 2002 and 2003 estimated additions. SCE's used its November 2001 capital budget which includes estimated 2004 and 2005 plant expenditures. ORA's estimates of capital additions were lower than SCE by $419,000,000 in 2004 and $238,000,000 in 2005. Also ORA's lower estimate of SONGS O&M, lower estimates of

operating expenses for test year 2003 and slightly lower escalation rate forecastss further reduce SCE's post test year requests. ORA's recommendation for post test year 2004 rates is $30,576,000 lower than SCE's request and for post test year 2005 is $71,467.000 lower.

CHAPTER 2

COMPARISON OF CALIFORNIA AND NATIONAL ELECTRIC RATES

I. INTRODUCTION

This chapter provides a comparison of California's electric rate for different customer classes with the national averages for the period 1970 through 2001. The data shows that California electric rates have increased significantly compared to national average electric rates. In particular, Southern California Edison's (SCE) rates are among the highest in the nation. These high electric rates can have enormous economic impacts on the businesses and citizens of California. Any additional increase will only serve to further contribute to sustaining the high electric rates and the external, economic impacts of those high rates. The GRC proceeding addresses one component of SCE's rates (i.e. base rates) that comprises about 20 - 25 percent of the total electric rate. However, this one component of rates is fully regulated by, and is completely within the purview of, the Commission. Therefore, it is imperative that the Commission closely scrutinizes the various functions that comprise the base rate component to assure that ratepayers are paying just and reasonable rates.

II. CALIFORNIA'S ELECTRIC RATES VS. NATIONAL ELECTRIC RATES

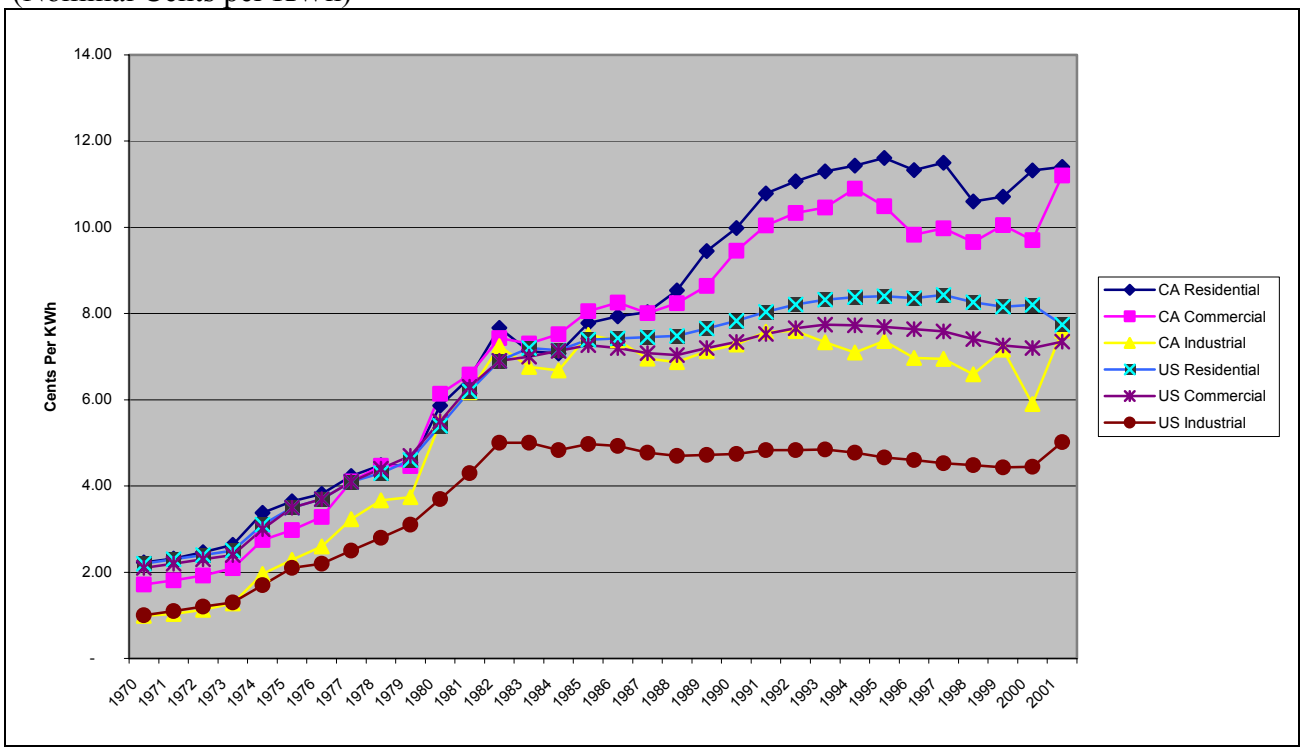
According to data collected by the CPUC Energy Division, California's average residential, commercial, and industrial electricity rates were, on average, at about the same level as that of the national average for the years 1970 through1984. However, between 1985 and 2001, there has been a significant increase in California's electricity prices for these three sectors.

According to data collected by the Energy Information Administration[7] of the Department of Energy and the CPUC Energy Division, between 1985 and 2001 the

[7] The Energy Information Administration is the principal energy statistical and analytical agency within the Department of Energy. EIA is charged with providing policy-neutral, objective, timely, and relevant data

national average residential electricity rate ranged between 7.39 and 8.43 cents per kilowatt while California's average residential rate jumped from 7.48 to 11.4 cents per kilowatt, or 35 percent higher than the highest national average electricity rate. The national average commercial rate ranged between 7.04 and 7.69 cents per kilowatt during this same period while California's rate escalated from 8.01 to 11.2 cents per kilowatt. California's highest commercial rate at 11.2 cents in 2001 is 3.46 cents, or 44 percent, higher than the highest national average commercial electricity rate (in 1993) of 7.74 cents per kilowatt. As for the industrial sector, the national average ranged between 4.43 and 5.02 cents per kilowatt between 1985 and 2001, while California's rate ranged between 6.88 and 7.60 cents per kilowatt. See Figure 1 below.

Figure 1.Comparison of California and US Electricity Rates1970-2001
(Nominal Cents per KWh)



Source: 1970-1989 CA's rates from the CPUC Energy Division, 1990-2001 CA's rates from Energy Administration: EIA-861, "Annual Electric Utility Report." US rates from http://www.eia.doe.gov/emeu/aer/txt/tab0815.htm Table 8.15 Retail Prices of Electricity Sold by Electric Utilities, 1960-2000.

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analysis and projections for use by the Department of Energy, other government agencies, the U.S. Congress and the public.

California's high rates became more apparent between 1996 and 2001. During this period, California's biggest investor owned utilities[8] (IOUs) increased their prices significantly and California's electricity rates became one of the highest in the nation. While the national rate averaged at 8 cents per kilowatt for the residential sector during this period, California's average rate was between 10 and 11 cents per kilowatt, or 25 to 37 percent higher than the national average. As for the commercial sector, the national price stabilized at 7 cents per kilowatt while California's rate jumped from the already high 9 cents to 11 cents per kilowatt. In other words, California's commercial rate was 28 to 57 percent higher than the national commercial rate. The industrial sector's rate was not much better. While the national average stayed constant at 4 to 5 cents per kilowatt, California's rate was between 5 and 7 cents per kilowatt—or 40 to 50 percent higher than the national average. See Figure 2 below.

[8] Southern California Edison, Pacific Gas and Electric, and San Diego Gas and Electric.

Figure 2. Average Retail Electricity Prices (Cents/kilowatt-hour) 1996-2001

Utility	1996	1997	1998	1999	2000	2001
Residential						
SCE	12.76	12.76	11.60	11.60	11.60	13.29
PG&E	12.10	12.10	11.00	11.0	11.00	12.00
SDG&E	12.12	12.12	11.02	10.70	14.08	13.50
CA Avg.	11.33	11.50	10.60	10.71	10.40	11.40
National Avg.	8.36	8.43	8.26	8.16	8.20	8.47
Commercial						
SCE	9.46	9.45	10.60	10.60	10.60	17.04
PG&E	10.18	10.18	10.90	10.90	10.90	15.44
SDG&E	9.61	10.33	10.33	10.43	13.68	15.16
CA Avg.	9.78	9.78	9.78	9.78	9.70	11.20
National Avg.	7.64	7.59	7.41	7.26	7.20	7.35
Industrial						
SCE	8.05	8.05	8.05	8.05	8.10	12.13
PG&E	6.92	6.92	6.92	6.92	6.90	10.00
SDG&E	7.12	7.12	7.12	8.12	12.48	8.50
CA Avg.	6.93	6.93	6.93	6.93	5.90	7.60
National Avg.	4.60	4.53	4.53	4.43	4.45	5.02

Source: IOUs' rates from California Energy Commission. CA Average and National Average from Energy Information Administration/ Electric Power Monthly, April 2002, Table 53. Estimated U.S. Electric Utility Average Revenue per Kilowatt-hour to Ultimate Consumers by Sector, Census Division, and State.

III. SOUTHERN CALIFORNIA EDISON'S RATES

Figure 2 above also shows that SCE's rates were higher than California's average and much higher than national average rates for the residential, commercial and industrial sectors for the period 1996-2001. For the residential sector, SCE's rates were between 9 and 18 percent higher than the California average and 37 to 62 percent higher than the national average. SCE's residential rate was also slightly higher than PG&E's and SDG&E's rates during this period, with the exception of 2000 and 2001 when SDG&E's

rates were higher. For the commercial sector, SCE's rates were 11 to 54 percent higher than the California average and 28 to 142 percent higher than the national average. When compared to the other two IOUs, SCE's commercial rates was about the same as PG&E and SDG&E's rates with the exception of 2000 when SDG&E's rate was 3 cents higher and 2001 when SCE's rate was 2 cents higher. For the industrial sector, SCE's rates were 33 to 71 percent higher than the California average and 100 to 140 percent higher than the national average. SCE's industrial rates during this period remained 2 cents higher than PG&E's rates and were 1 to 4 cents higher than SDG&E's with the exception of 2000 when SDG&E's rate was 4 cents higher.

For the past 6 years (and even extending back to the mid 80's) it appears that the national average remained stable and constant at 8 cents/kWh for residential, 7cents/kWh for commercial, and 4 cents/kWh for industrial customers while California's rates have spiraled continually upward with no end in sight. In fact, the most recent data collected by EIA (2001) shows that California's big three IOUs' rates are the highest[9], when compared to all other IOUs serving more than 1 million customers, in the country. See Figure 3 below.

[9] The only exception was New York's IOU, Consolidated Edison Company-NY Inc. whose rate was 18 cents per kilowatt.

Figure 3. Annual Average Cost of Electricity (Cents/kWh)

For Residential Customers of Sample Utilities

January – December 2001

Source: Energy Information Administration, Form-826Util2001.

For the electronic copy of this report, Figure 3 is attached as a separate file

IV. HIGH UTILITY ELECTRICITY PRICES IN CALIFORNIA HARM CALIFORNIA'S ECONOMY

The price of utility energy is directly contained and reflected in most products and services sold in California. Electricity is used for manufacturing, marketing, and services. Electricity is a basic foundation of California industry and commerce.

High California utility electricity rates harm the California economy in at least two ways. First, high electricity rates harm electricity consumers. Consumers both pay more for the electricity than they otherwise should, or pay more for the products and services sold in California than they otherwise would. In either case, consumers have less disposable income to buy other products made or sold in California (computers, cars, wash machines, restaurant food, etc.).

Second, California businesses which use electricity in sales or manufacturing must account for their own electricity costs. They do so by passing on their higher costs, by relocating to states with lower cost electricity, or by accepting a lower return on their investment. All of these alternatives directly harm California's.

In August and September 2001, the California Manufacturers and Technology Association, an organization that represents more than 30,000 California manufacturers, processors and technology-based companies—a segment of California's economy that contributes more than $250 billion annually and employs more than 2 million Californians, produced and released three reports entitled "Energy Casualty Report" which featured actual correspondence from CMTA members and other manufacturers reflecting the impacts of electricity rate increase on their company's operations, profitability and expansion plans. The "casualties" catalogued by CMTA in its reports included companies that had to close facilities, lay off workers, cancel production or stop plans to expand, and business opportunities loss to other states due to high electricity prices. CMTA also monitored companies that were in danger of becoming a "casualty" as well.

CMTA reported 12 "casualties" and 22 "casualty watch" in Energy Casualty Report #1, published on August 1, 2001. Two weeks later, CMTA released the second report showing another 11 "casualties" and 20 "casualty watch." This report also

presented a headcount of the number of companies impacted by the most recent electricity rate increase. CMTA cited 10 companies with layoffs, 8 production and citing losses, 4 closures, and 4 hiring freezes. Manufacturers impacted during this period were also claiming that they had rate increases from 50 percent to 190 percent. On September 19, 2001, CMTA released Energy Casualty Report #3. This report shows 11 "casualties" and 10 "casualty watch" with rate increases among manufacturers ranging from 50 percent to 200 percent. There were 18 companies with layoffs, 10 production and citing losses, 5 hiring freezes, and 4 closures.

Earlier in the year the California Manufacturing and Technology Center (CMTC), a private, nonprofit organization established to improve the competitiveness of small manufactures in the five county L.A. area, Fresno and San Diego, conducted a survey on the impact of the energy crisis on the manufacturing industry in Southern California.[10] According to CMTC, fifty-one manufacturers responded to the survey. The manufacturers surveyed engaged in more than ten industries, and have an estimated total annual sale of more than 844 million dollars. They represent all sizes of manufacturers in number of employees, ranging from 1 to over 100. Most of the manufacturers who responded to the survey rely entirely on electricity for energy in their manufacturing operations, although some of them also rely on gas for operations.

According to CMTC, the survey results indicated that manufacturers were very concerned about the energy crisis. More importantly, they said that they would make various changes to their operations to respond to changes in energy price. Figure 4 below shows the reactions of these manufacturers when asked what changes they would make if energy costs increase dramatically. Most significantly, 47 percent said that they would increase customer prices, 27 percent said they would reduce operation hours and 25 percent said they would relocate.

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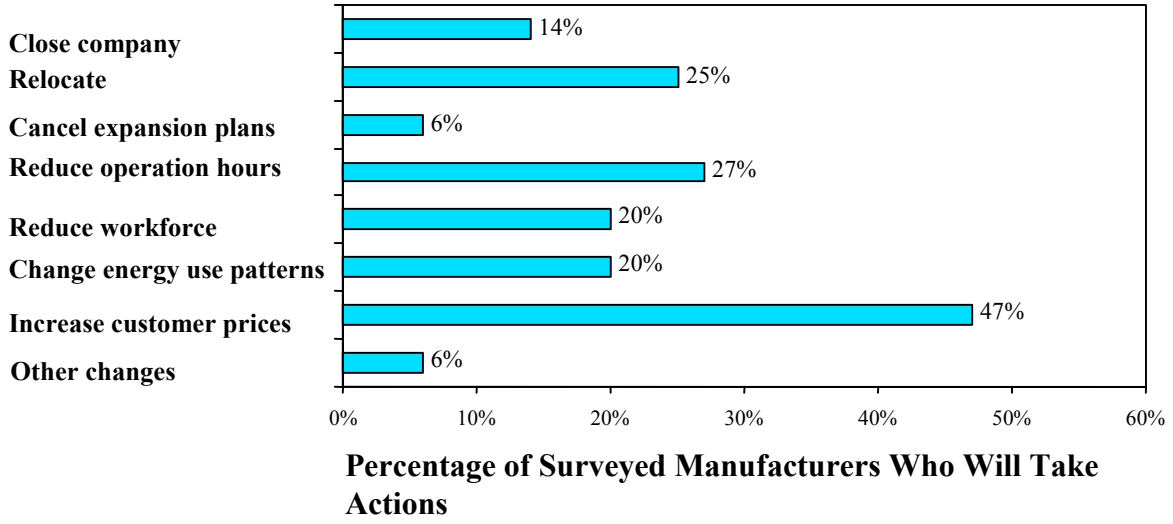
[10] Source: www.ocbc.org, CMTC Energy Crisis Survey—January 2001.

Figure 4. Reactions of Manufacturers to Energy Costs Increase

Source: CMTC Energy Crisis Survey—January 2001



CMCT further reported that when asked what energy price level would cause them to make these changes, 59 percent of them said they would make the changes if energy price increases by 10 percent. Thirty-three percent said they would make the changes if energy price increases by 20 percent, only 8 percent said they would make the changes only if energy price increases by 30 percent.

Business Week Online produced an article on April 30, 2001, which noted that companies such as Grundfos Pumps Corporation in Fresno, Intel Corporation, Gap Inc., and E Trade Group Inc. were either relocating to other states or halting business expansion in California due to electricity problems such as blackouts and rate increase.[11] Craig Barrett, CEO of Intel Corporation, California's second largest employer, said "not a chance" that his company would approve any Silicon Valley expansion[12.] "Other states such as Arizona, New Mexico, and Texas are exploiting California's energy woes by

[11] Source: www.businessweek.com, *Business Week Online,* April 30, 2001, cover story.

stepping up business-recruitment efforts that had slowed during California's go-go years of the late 1990's. Tennessee mailed flashlights to California executives."

While the electricity crisis appears to be dormant presently, California's economic damage is far from over, especially if energy costs continue to rise. More businesses will fail or leave California unless electricity prices are rapidly reduced to more competitive levels. According to the Business Council of New York State, Inc., in a published paper entitled, The Power to Grow[13], not only New York would continue to lose jobs directly as a result of high energy costs, but "States with above-average energy costs lost manufacturing jobs at a faster rate than other states…" The paper also noted that, "Between 1993 and 1998, the 16 states with above average industrial electric rates lost 2 percent of their manufacturing jobs; the 34 states with below-average industrial rates averaged a 10 percent increase in manufacturing and a 39 percent increase in manufacturing output."

The results of high electricity prices include, but not limited to: 1) less disposable income available for consumer to purchase products or services in the general economy; 2) lower net profits for businesses to invest back into their own products and services; 3) union and non-union jobs and income loss to lower cost electricity states; and, 4) lower tax revenues available for the entire state's economic benefit and general well-being.

The flight from California of many businesses and the negative effects on California consumers are legitimate issues for this Commission to consider in its electricity pricing decisions. The bottom line is that high California electricity rates are damaging to California.

V. HIGH ELECTRICITY RATES OF EDISON AND OTHER CALIFORNIA UTILITIES HARM CALIFORNIA UTILITIES

High California utility rates are the worst single enemy of California utilities. Utilities ultimately cannot survive as regulated utilities by selling electricity at rates for

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[12] Source: www.bcnys.org, The Business Council of New York State, Inc., Press release, Wednesday, October 17, 2001.

[13] Ibid.

higher than current market price to produce electricity and for higher than the national average. This Commission must find a way to reduce utility rates if it wishes to promote the long-term survival of regulated utilities in anything close to their current form and function.

Edison and other California utilities price their electricity as though electricity users possess no options to leave their system at any price. But electricity users have sufficient options to leave utilities, and may do so under the high rate pressure placed on them by California utilities. Utilities constantly harp on the danger of various kinds of bypass. They routinely do so, for example, in their cost of capital proceedings. Ironically, what the California utilities seek in the cost of capital proceedings is to raise rates, and therefore to increase the very bypass threats they identify. Many forms of utility electric "bypass" now exist. The threat and reality of each form of bypass is directly increased by higher utility electric rates. Customers with high utility rates may consider and implement self-generation (which there are many different kinds currently available), leaving the state, conservation, direct access, or a host of other options. Municipal utility formation and sales can provide an attractive alternative to state regulated utility electricity.

The whole notion of California electric deregulation initially occurred because of high California electricity rates. The service interruptions and high prices of poorly conceived and implemented deregulation were themselves the direct result of high-regulated utility prices. If California electricity rates remain substantially higher than in the rest of the nation, California utilities will come under increasing bypass pressure and adversely impact remaining customers without options.

Even residential ratepayers may increasingly exercise some utility bypass options (conservation, some self-generation, etc.) that they currently possess. To the extent utility residential customers are captive customers, high utility rates are especially burdensome and unfair to them.

VI. HIGH CALIFORNIA RATES WERE NOT AND ARE NOT INEVITABLE

California electricity rates are not inevitably high. Each of the many elements of high rates, formed over many years, results from a human decision or decisions. In fact, a number of factors in California favor low electricity rates.

California possesses rich natural resources for generating and importing electricity at reasonable rates. Unlike many other states, California possesses significant hydroelectric facilities. Unlike many other states, California is nearby other states (Washington and Oregon) with surplus electricity to sell. California possesses its own oil and gas, and has good access to natural gas in Canada and the American Southwest.

California utilities have access to some of the most well trained and educated, and most productive, workers and employees in the world. If employee talent in California were harnessed to moderate rather than increase rates, then this would certainly result in lower electricity rates for Californians.

ORA does not deny there may be disadvantages to California utilities, which tend to increase rates. But for years utilities have touted such disadvantages, and have been silent about the significant advantages California utilities enjoy. ORA requests the Commission, in this proceeding and others, to reject any insinuations that high California utility rates are inevitable.

VII. CONCLUSION: THE COMMISSION CAN REDUCE THE HIGH RATES

If California rates are not inevitably high, then why are they high? ORA has not studied this question in depth, but has some experience and insight that it wishes to share with the Commission.

California electric rates are high because over a period of years the California utilities and the Commission have simply not recognized the upward spiral of California electric rates. The Commission need to look at all rate case increase requests with skepticism, and to recognize in each case that high electricity rates are counterproductive to the economy and to the utilities. Unless the Commission develops such a mindset, California utility rates will remain among the highest in the nation and will continue to increase further.

A regulated utility will continue to expand its services, personnel, rates, and revenues until and unless it is halted from outside. It is simply a natural inclination to expand and charge more. If California regulated utilities reduce rates, the impetus must come from this Commission. Utilities must begin reducing rates now, not after it becomes too late and the utilities are serving a shrinking customer base and mainly captive

residential utility customers. The Commission must state its expectations clearly and soon.

In general rate cases in particular, California utilities have successfully threatened this Commission with employee layoffs or potential lower service quality if their rate demands are not met. ORA requests the Commission in the future to reject such demands in its decisions on rate. Instead, utilities must be encouraged to operate more efficiently and aggressively seek methods to effectively control and manage their costs.

This GRC presents the Commission with the immediate opportunity to assure that the electric distribution and retained generation component of utility rates are set at a fair and reasonable level. The Commission can reduce California's high electric rates.

CHAPTER 3

SUMMARY OF EARNINGS

I. INTRODUCTION

Summary of earnings tables are displayed in this chapter. The revenue requirements are calculated by a computer model developed by SCE and is referred to as the results of operation model (RO). Data is provided by the various witnesses and is entered in the RO model to calculate the Results of operations.

II. SUMMARY

The results of operation are summarized in five tables shown at the end of this chapter. Table 3-1 contains ORA's recommended CPUC revenue requirements at present and proposed rates. Table 3-2 displays the comparison of ORA and SCE CPUC revenue requirements at present rates. Table 3-3 displays the comparison ORA and SCE CPUC revenue requirements at proposed rates. Table 3-4 shows ORA's recommended revenue requirements at proposed rates detailing revenues for total company, the ISO/FERC, SONGS 2 and 3 return credit, and CPUC. Table 3-5 shows SCE's requested revenue requirements at proposed rates detailing revenues for total company, the ISO/FERC, SONGS 2 and 3 return credit, and CPUC.

III. DISCUSSION

SCE and its consultants developed the RO model and used it to develop the results of operation contained in the NOI. ORA tested the RO and it appears that it reflects the appropriate method of determining the summary of earning. The model was modified slightly to correct some glitches and minor omissions. SCE used the new version for its application. SCE modified the RO later to reflect the recorded 2001 plant data and the changes in tax laws. SCE continued to modify the RO to remove some glitches and to reduce the run time and also to reflect some changes requested by ORA.

ORA used the latest version 5.1 to calculate the results of operation contained in its showing. The various witnesses provided the input data for the RO model. Discussions and analyses of the input data are contained in various chapters of ORA's report. ORA made some minor modifications to version 5.1 to accommodate some witnesses' request so that the RO could reflect their recommendations.

The values shown in the following tables were extracted from two RO versions. Numbers shown in the SCE columns were extracted from the RO version 2.0 that was filed with SCE's application in May 2002. Numbers displayed in the ORA columns were extracted from an ORA scenario adapted from the RO version 5.1 provided by SCE on September 20, 2002.

For the electronic copy of this report, Tables 3-1 through 3-5 are included in a separate file

CHAPTER 4

JURISDICTONAL ALLOCATION

I. INTRODUCTION

SCE's showing for this GRC consists of total company costs and revenues for test year 2003 and post test years 2004 and 2005. Those revenues and costs are split into CPUC and FERC jurisdictional components in order to determine the revenue requirement and revenue increases for each two jurisdictions. The FERC has jurisdiction over the ISO controlled portion of SCE's transmission system. The CPUC has jurisdiction over the remaining generation, non-ISO transmission and distribution functions related to this GRC. ORA and SCE propose different jurisdictional allocation methodologies.

II. SUMMARY

For this GRC, ORA recommends that the multi-factor cost allocation methodology adopted in CPUC Decision No. 97-08-056 be used as the basis for allocating costs between the CPUC and FERC jurisdictions. The methodology is used to assign joint cost and allocate common costs associated with administrative and general (A&G) expenses and general & intangible (G&I) plant. SCE has based its assignment of these costs on an allocation methodology used by FERC. Based on ORA's test year 2003 estimates, use of the multi-factor methodology results in approximately $22 million more being allocated to the FERC jurisdiction and an equal, lesser amount being allocated to the CPUC jurisdiction. The effect is approximately the same for each of the two post test years, 2004 and 2005.

Table 4-1

Allocation of Test Year 2003 Revenue Requirement

(Dollars in thousands)

	SCE	ORA	SCE > ORA
Total Company	$3,324,951	$2,873,942	$451,009
FERC Jurisdictional	260,009	253,897	6,112
CPUC Jurisdictional	3,064,942	2,620,045	217,400

Table 4-1 shows that ORA has actually allocated $6,112,000 less to the FERC jurisdiction than has SCE. ORA recommends that a larger percentage of A&G expenses and capital costs related to G&I plant should be allocated to the FERC jurisdiction. However, since ORA's revenue requirement is substantially lower than that of SCE, ORA's calculated dollar allocation to FERC is less than that estimated by SCE. If ORA had used SCE's allocation percentages for A&G and G&I, ORA's recommendation for the amount to be allocated to the FERC jurisdiction would have been only $231,603,000. Therefore, the issue of the proper allocation methodology to be used in this GRC does affect the CPUC jurisdictional revenue requirement by approximately $22 million. The actual amount will depend on what total company revenue requirement is ultimately adopted

As discussed below, this particular jurisdictional allocation issue is the subject of SCE Application No. 01-02-030, wherein the company requests CPUC jurisdictional recovery of allocated costs not recovered at the FERC. In that proceeding, ORA recommended that the request be denied. While a CPUC decision in this case has not yet been issued, ORA recommends that when it is issued, the principles should be used as the basis for allocating A&G and G&I costs for this GRC.

III. BACKGROUND

In response to A.96-07-009, SCE's request for a non-generation PBR mechanism, and A.96-12-019, the rate setting proceeding that dealt with the unbundling of SCE's rates, the Commission issued D.97-08-056 which adopted a methodology for allocating administrative & general expenses and general & intangible plant costs. The methodology

involved a detailed study to determine causation of joint costs and, based on the results of that study, directly assigned those costs to the appropriate function (generation, transmission and distribution). Common costs that could not be directly assigned were then allocated to each of the functions based on three factors – labor expense, operation & maintenance expense and plant additions. The adopted methodology, commonly referred to as the "multi-factor cost allocation methodology", was developed by SCE in consultation with ORA.

In its test year 1998 rate case filing at the FERC (ER97-2355-000), SCE used the multi-factor methodology in its analysis to separate the FERC jurisdictional costs. In that proceeding, FERC disregarded the detailed cost causation study and multi-factor allocations and instead allocated the majority of A&G and G&I costs based only on a labor factor.

In anticipation that certain costs might fall through a crack between the FERC and CPUC allocation methodologies, the Commission issued Resolution E-3544 (July 23, 1998). That resolution established the Transmission Revenue Requirement Reclassification Memorandum Account (TRRRMA). The establishment of that account afforded the utility the opportunity to recover certain costs in the CPUC jurisdiction if those costs were found to be non-transmission related by the FERC. SCE filed A.01-02-030 on that basis. However, in the Findings of Resolution E-3544, the Commission stated that:

> 5. Establishment of a TRRRMA does not allow for automatic recovery of costs booked into that account. Cost recovery and ratemaking issues associated with the amounts entered into that account will be considered in future proceedings.
> …
> 7. In order to provide the opportunity for the utilities to make a showing that the costs which are deemed non-transmission related by FERC may be reasonable distribution costs, the utilities should be allowed to establish a TRRRMA with the sole purpose of tracking such costs for future review.

In its testimony in A.01-02-030, ORA recommended that SCE's request to recover the allocated costs not incorporated by FERC should be denied. SCE failed to meet its

burden of showing that the TRRRMA costs it seeks to recover through distribution rates are both reasonable and are actually distribution related. It is ORA's position that the multi-factor cost allocation methodology more accurately allocates costs to appropriate jurisdictions. In its TRRRMA testimony, ORA noted that SCE had filed a Conditional Request for Rehearing before the FERC on the disputed TRRRMA costs. SCE requested from FERC the difference between the revenue requirements deemed reasonable at FERC and the costs SCE identified as transmission-related. If the Commission were to deny SCE's TRRRMA request, the company would have that opportunity to seek recovery of the disputed costs at FERC.

A Commission decision in A.01-02-030 is still pending. SCE filed that application on February 28, 2001. ORA testimony recommending that the request be denied was distributed on September 7, 2001. It was agreed that no hearings were necessary and briefs were filed on September 28, 2001.

Since this issue is already before the Commission, ORA recommends that the principles adopted in the decision in A.01-02-030 be applied as the basis for determining the appropriate jurisdictional allocation methodology for the test year 2003 GRC. In the meantime, the last Commission adopted methodology, the multi-factor, should be the basis for determining CPUC related revenue requirements.

IV. USE OF THE MULTI-FACTOR IN THE TEST YEAR 2003 GRC

SCE's jurisdictional allocation methodology is explained in Exhibit SCE-8, Chapter III, starting on page 13. Briefly, SCE's test year 2002 FERC filing was based on FERC allocation procedures (i.e., the multi-factor was not used). Total 2002 company costs were allocated between the FERC and CPUC jurisdictions on that basis. Percentages for various cost categories were calculated and subsequently applied to the total company cost estimates for the test year 2003 CPUC GRC.

In ORA Data Requests 125 and 135, ORA requested that SCE recalculate the jurisdictional allocation based on the multi-factor methodology. In response, SCE stated

that it had not developed multi-factors for this proceeding and has not conducted the essential special study to identify and allocate joint costs. After discussions with SCE, it became clear to ORA that it would be difficult for SCE to redo the allocation study as requested and it would be difficult to persuade the company to do that work.

ORA does not have the data nor the resources to develop an independent multi-factor allocation study for this GRC. However, ORA's position is that the multi-factor methodology should be used for the allocation of costs to the CPUC jurisdiction until the Commission decides to supersede it with another allocation methodology. In order to reflect the effect of the multi-factor methodology in this rate case, ORA recommends that the effect of using the multi-factor in SCE's test year 1998 FERC filing should be applied to the test year 2003 FERC filing. That can be accomplished as described in the following paragraph.

In the test year 1998 case, $550,794,000 in A&G expenses and $1,777,671,000 in G&I plant were allocated between the FERC and CPUC jurisdictions. The revenue requirement effect of using the multi-factor methodology rather than the FERC method was $6,080,000 for A&G expenses and $17,956,000 for costs related to G&I plant[14]. In the test year 2002 FERC case, allocable A&G is estimated by SCE to be $578,395,000 and allocable G&I plant is estimated to be $2,151,048. ORA estimated the revenue requirement effect for 2002 by applying the ratio of (1998 effect/1998 cost) times (2002 cost) for both A&G expense and G&I plant. This resulted in a multi-factor methodology revenue requirement adjustment of $6,385,000 for A&G and $21,727,000 for G&I when the multi-factor methodology is applied to SCE's test year 2002 FERC filing. ORA then used the same methodology as SCE in developing the 2002 cost percentages and applying those percentages to 2003 total company costs. Due to specific adjustments proposed by SCE in the test year 2003 allocation procedure and the fact that ORA has lower costs to be allocated in test year 2003, ORA's test year 2003 adjustment due to the use of the multi-factor is approximately $20 million as opposed to the $24 million effect for the 1998 FERC test year filing and the estimated $28 million effect for the 2002 FERC test year.

[14] The 1998 revenue requirement effects are determined from information SCE entered into the TRRRMA.

Since the cost percentages developed for 2003 are also used for post test years 2004 and 2005, a similar revenue requirement effect of approximately $20 million for each of those years results from ORA's proposal for approximating the effect of the multi-factor methodology.

V. CONCLUSIONS

The multi-factor cost allocation methodology that has been adopted by the CPUC should be used for allocating SCE's costs between the CPUC and FERC jurisdictions until the CPUC decides otherwise. If the matter in A.01-02-030 remains unresolved or is resolved in favor of ORA, for the purposes of this GRC, ORA's proposal for approximating the effect of using the multi-factor cost allocation methodology should be adopted. SCE should then be ordered to conduct a complete multi-factor allocation study for its next GRC filing.

CHAPTER 5

SALES, CUSTOMERS, AND PRESENT RATE REVENUES

I. INTRODUCTION

This chapter contains the Office of Ratepayer Advocates' (ORA) analysis and recommendation for sales, customers and present rate revenues. ORA and Southern California Edison (SCE) use econometric models to forecast electric sales and customer growth for residential, commercial, industrial, and other public authority classes of service.

Part II summarizes the difference between ORA's and SCE's sales and customer forecasts. Electric sales model assumptions are discussed in Part III. Part IV provides ORA's analysis of SCE's customer forecast and Part V presents ORA's present revenue rates.

II. SUMMARY

ORA exceeds SCE's total retail sales forecast by 0.4%. Table 1 compares ORA and SCE's sales forecasts for 2003.

Table 1

Sales Forecasts 2003

Sales GWh	**ORA**	**SCE**
Residential	26,193	25,350
Commercial	35,887	34,560
Industrial	11,563	12,030
OPA	5,152	6,460
Agricultural	1,000	1,000
Total Retail	**79, 795**	**79,400**

III. ELECTRIC SALES

ORA and SCE use econometric models to forecast electric sales for residential, commercial, industrial, and other public authority classes of services. The econometric models developed in this chapter establish a relationship between electric consumption, electric prices, conservation, and economic/demographic conditions in SCE's service area. Economic and demographic conditions in SCE's service area include personal income, population, and employment.

A. RESIDENTIAL SALES

SCE models residential sales per household as a function of real average electric price, conservation, real personal income, cooling degree days, heating degree days, seasonal dummy variables, delayed billing variables, and adjusts for serial correlation. Similarly, ORA models sales/household as a function of real average electric price, conservation, real personal income, cooling degree days, heating degree days, seasonal dummy variables, delayed billing variables, and adjusts for serial correlation. SCE's monthly model is estimated from January 1983 until April 2001 while ORA model extends the estimation period through December 2001. Residential sales per household is multiplied by number of households to derive residential sales.

B. COMMERCIAL SALES

SCE models commercial sales per commercial square-foot as a function of real average electric price, employment, cooling degree days, seasonal dummy variables, and delayed billing variables, and a time trend. Similarly, ORA models commercial sales per commercial square-foot as a function of real average electric price, employment, cooling degree days, seasonal dummy variables, and delayed billing variables, and a time trend. SCE's monthly model is estimated from January 1983 until April 2001 while ORA's model extends the estimation period through December 2001. Commercial sales per commercial square-foot is multiplied by commercial square feet to derive commercial sales.

C. INDUSTRIAL SALES

SCE models industrial sales per manufacturing square-foot as a function of real average electric price, employment, conservation, wage and salary in manufacturing sector, cooling degree days, seasonal dummy variables, and delayed billing variables, a time trend, and adjusts for serial correlation. Similarly, ORA models industrial sales per industrial square-foot as a function of real average electric price, employment, conservation, wage and salary in manufacturing sector, cooling degree days, seasonal dummy variables, and delayed billing variables, a time trend, and adjusts for serial correlation. SCE's monthly model is estimated from January 1983 until April 2001 while ORA's model extends the estimation period through December of 2001. Industrial sales per manufacturing square feet are multiplied by manufacturing square-foot to derive industrial sales.

D. OTHER PUBLIC AUTHORITY SALES

SCE models electricity sales for other public authority (OPA) as a function of real average electric price, conservation, wage and salary in the government sector, cooling degree days, seasonal dummy variables, and delayed billing variables, and adjusts for serial correlation. Similarly, ORA models public authority electric sales as a function of real average electric price, employment, cooling degree-days, seasonal dummy variables, and delayed billing variables, a time trend, and adjust for serial correlation. SCE's monthly model is estimated from January of 1983 until April 2001 while ORA's model extends the estimation period through December 2001.

E. AGRICULTURAL SALES

SCE and ORA both forecasted electric sales to agriculture to be constant for the forecasted period at 1,000 GWh.

IV. CUSTOMER ANALYSIS

SCE forecasted residential customer additions by determining the number of building permits for its service area and subtracting residential demolitions. The other independent variable in the residential model was a moving average serial correlation correction. The commercial customer forecasts were based on residential construction and new commercial floor space.

Industrial, OPA, and Agricultural new customer additions were based on recent historical trends.

ORA reviewed SCE's customer forecast methodology and finds the methodology reasonable. ORA examined SCE's forecasts against historical trends and found the forecasts to be in line with the historical trends. Using the UCLA Anderson Forecast 2003 3rd Quarter figures from 1981 until 2001 the average population growth was 1.90% compared to the average increase of 1.98% for SCE service area for the same time period. "Population growth will average 1.5% per year from 2001-2020….." In 2000 and 2001 population increased nearly 2% annually.

Year	Residential	Agriculture	Commercial	Industrial	Public Authority	Total Customers
1997	3,752,209	24526	399,263	28,602	47,654	4,252,254
1998	3,791,163	24395	409,089	27,348	48,099	4,300,094
1999	3,843,923	24454	420,370	25,867	47,593	4,362,207
2000	3,884,982	24234	433,855	24,955	47,527	4,415,553
2001	3,931,414	23573	450,102	21,765	47,143	4,474,005

V. PRESENT RATE REVENUES

Present revenue rates were determined by inputting the total sales and customers of all five-customer classes and running the Results of Operations. ORA forecasted higher sales than SCE resulting in retail at present rates to be greater than SCE's retail revenue at present rates. SCE estimates retail revenues at present rates $2,778,528,000 for 2003 and ORA estimates retail revenues at present rates to be $2,791,999 for 2003. ORA's

estimate is approximately $13,471 million higher. The entire difference is exclusively a result of ORA's higher sales forecast.

VI. CONCLUSIONS

ORA's econometric models predict higher sales forecast for SCE's service area primarily due to more recent recorded information. ORA accepts the customer levels SCE predicts; the customer forecasts are in line with historical trends. Based on ORA's higher sales forecasts, ORA predicts revenue rates at present value to be $13,471,000 higher than SCE's forecast.

CHAPTER 6

LABOR AND NON-LABOR ESCALATION

I. INTRODUCTION

This chapter provides the Office of Ratepayer Advocates' (ORA) analyses and recommendations for Southern California Edison's (SCE) labor and non-labor escalation rates for various Operations and Maintenance (O&M) and Administrative and General (A&G) related expenses for 2001, 2002, and 2003 results of operations. ORA uses the same methodology for the 2004 and 2005 post ratemaking years and those forecasts are provided in this chapter as well. Estimates for labor and non-labor escalation rates were calculated for expenses for the following functional categories: steam, nuclear, hydroelectric, other power production, transmission, distribution, customer accounts, customer service and information, and administrative and general.

II. SUMMARY

Table 1 presents ORA's labor escalation for 2001 and 2002. Table 2 compares ORA's and SCE's labor escalation rates for the test year 2003. Table 3 presents ORA's labor escalation rates for the post-rate making years 2004 and 2005. Table 4 presents ORA's non-labor escalation for 2001 and 2002. Table 5 compares ORA's and SCE's non-labor escalation for the test year 2003. Table 6 presents non-labor escalation rates for the post rate-making years 2004 and 2005.

The difference between ORA and SCE's escalation rates are the result of ORA using more recent historical information.

Table 1

ORA Labor Escalation 2001 and 2002

Index	2001	2002
Steam Index	103.96	107.95
% Change[15]	3.96	3.84
Nuclear Index	103.96	107.95
% Change	3.96	3.84
Hydro Index	103.96	107.95
% Change	3.96	3.84
Other Power Production Index	103.96	107.95
% Change	3.96	3.84
Transmission Index	103.96	107.95
% Change	3.96	3.84
Distribution Index	103.96	107.95
% Change	3.96	3.84
Customer Accounts Index	103.96	107.95
% Change	3.96	3.84
Customer Service and Information Index	103.96	107.95
% Change	3.96	3.84
Administrative and General Index	103.96	107.95
% Change	3.96	3.84

[15] % Change is the change from previous year index to current year index in all tables.

Table 2
Comparison between ORA and SCE
2003 Labor Escalation

Index	ORA	SCE	SCE-ORA
Steam Index	111.51	112.31	.71
% Change	3.29	4.04	
Nuclear Index	111.51	112.31	.71
% Change	3.29	4.04	
Hydro Index	111.51	112.31	.71
% Change	3.29	4.04	
Other Power Production Index	111.51	112.31	.71
% Change	3.29	4.04	
Transmission Index	111.51	112.31	.71
% Change	3.29	4.04	
Distribution Index	111.51	112.31	.71
% Change	3.29	4.04	
Customer Accounts Index	111.51	112.31	.71
% Change	3.29	4.04	
Customer Service and Information Index	111.51	112.31	.71
% Change	3.29	4.04	
Administrative and General Index	111.51	112.31	.71
% Change	3.29	4.04	

Table 3
ORA Labor Escalation 2004 and 2005

Index	2004	2005
Steam Index	115.60	119.67
% Change	3.67	3.78
Nuclear Index	115.60	119.67
% Change	3.67	3.78
Hydro Index	115.60	119.67
% Change	3.67	3.78
Other Power Production Index	115.60	119.67
% Change	3.67	3.78
Transmission Index	115.60	119.67
% Change	3.67	3.78
Distribution Index	115.60	119.67
% Change	3.67	3.78
Customer Accounts Index	115.60	119.67
% Change	3.67	3.78
Customer Service and Information Index	115.60	119.67
% Change	3.67	3.78
Administrative and General Index	115.60	119.67
% Change	3.67	3.78

Table 4

ORA Non-labor Escalation 2001 and 2002

Index	2001	2002
Steam Index	101.92	103.54
Change	1.92	1.59
Nuclear Index	101.35	102.73
% Change	1.36	1.35
Hydro Index	100.93	101.57
% Change	.92	.64
Other Power Production Index	99.89	100.78
% Change	-.11	.89
Transmission Index	101.21	102.74
% Change	1.21	1.50
Distribution Index	102.06	103.59
% Change	2.06	1.50
Customer Accounts Index	107.08	109.06
% Change	7.07	1.85
Customer Service and Information Index	101.97	102.43
% Change	1.97	.44
Administrative and General Index	103.49	107.10
% Change	3.49	3.49

Table 5
Comparison ORA and SCE
Non-labor Escalation 2003

Index	ORA	SCE	SCE-ORA
Steam Index	106.20	106.90	.65
% Change	2.56	2.67	
Nuclear Index	105.32	106.80	1.39
% Change	2.52	2.73	
Hydro Index	104.19	105.74	1.47
% Change	2.58	2.59	
Other Power Production Index	103.39	105.46	1.96
% Change	2.59	2.73	
Transmission Index	105.63	106.70	1.00
% Change	2.81	2.91	
Distribution Index	106.34	106.98	0.60
% Change	2.65	2.78	
Customer Accounts Index	111.70	106.74	-4.65
% Change	2.42	2.65	
Customer Service and Information Index	103.80	105.58	1.69
% Change	1.34	2.26	
Administrative and General Index	111.02	111.08	0.05
% Change	3.66	3.65	

Table 6
ORA Non-Labor Escalation

Index	2004	2005
Steam Index	109.18	111.91
% Change	2.81	2.51
Nuclear Index	108.41	111.09
% Change	2.52	2.94
Hydro Index	107.01	109.65
% Change	2.71	2.46
Other Power Production Index	106.07	108.28
% Change	2.59	2.09
Transmission Index	108.69	111.47
% Change	2.90	2.56
Distribution Index	109.40	112.35
% Change	2.89	2.69
Customer Accounts Index	115.37	118.84
% Change	3.29	3.01
Customer Service and Information Index	107.15	109.93
% Change	3.22	2.59
Administrative and General Index	115.25	119.40
% Change	3.81	3.6

III. LABOR ESCALATION

ORA constructed weighted average forecasts for 2001, 2002, and 2003 using forecasted labor escalation rates provided by DRI-WEFA. The weights were based on the shares of represented and non-represented employees in total wages and salaries paid in

1999 and 2000. The percentage of each class was multiplied by the corresponding DRI-WEFA escalation factor.

The differences in ORA's and SCE's forecast are due to ORA using more current information provided by DRI-WEFA. ORA used the Second-Quarter 2002, "The Power Planner." ORA's 2001 information is recorded information rather than the forecasted information SCE used in its analysis. The forecasted escalation rates also changed as the U.S. economy changed between 2001 and 2002.

IV. NON-LABOR ESCALATION

ORA used the same methodology SCE used except ORA updated the indexes provided by DRI-WEFA in order to capture updated historical and forecasted information that reflect current conditions of the economy and non-labor escalation.

V. CONCLUSIONS

ORA recommends using the ORA's escalation rates shown in Table 1 through Table 6. These rates are more accurate since they reflect more current escalation forecasts.

CHAPTER 7-A

GENERATION EXPENSES

I. INTRODUCTION/SUMMARY

This chapter addresses SCE's estimates of Operation and Maintenance (O&M) expenses for nuclear, coal, hydroelectric and other generation and it presents ORA's analysis, findings, and recommendations.

ORA's analysis and review of SCE's request included, but was not limited to review of the following: SCE's testimony, supporting workpapers, compliance with Commission decisions and an examination of other data received through interviews and data requests.

Table A -1 and Table A – 2 show a comparison between SCE's filing and ORA's recommendations. ORA accepts most of SCE's estimates for the Test Year 2003, which were developed through conventional "cost-of-service" ratemaking. In some instances the methodology used was changed and non-recurring expenses have been removed, as well as some historical and future adjustments.

Table A-1

Total O&M

(Constant 2000$ x 1000)

SCE	ORA	SCE exceeds ORA	
		Amount	Percentage
$279,290	$250,012	$29,278	12%

A breakdown of total O&M expenses are as follows:

Table A-2

Breakdown of Total O&M

(Constant 2000$ x 1000)

Generation	SCE	ORA
Nuclear	196,186	177,374
Coal	53,815	45,459
Hydroelectric	27,771	25,661
Other	1,518	1,518
Totals	279,290	250,012

There have been several accounting changes adopted by the utility affecting numerous O&M FERC accounts. ORA reviewed these accounting changes as part of this forecast on the basis of the data provided in the workpapers.

ORA's total generation O&M estimate is $ and specific expenditure removals are summarized as follows in Table A-3:

TABLE A-3

EXPENDITURES REMOVED
2003 GENERAL RATE CASE
(CONSTANT 2000$ X 1000)

Nuclear			
	SONGS 2&3	17,404	
	SONGS 1 Shutdown	0	
	Palo Verde	1,408	
	Total Nuclear		18,812
Coal			
	Mohave	5,972	
	Four Corners	2,384	
	Total Coal		8,356
Hydro			2,110
Other			0
Total			$ 29,278

CHAPTER 7-B

NUCLEAR

I. SONGS 2&3

San Onofre Nuclear Generating Station Unit Nos. 2&3 (SONGS 2&3) are located in Southern California. Its operating agent is Southern California Edison (SCE) and as a co-owner holds a 75.05% share in the plant.

In this General Rate Case, SCE proposes for SONGS 2&3 to change existing incentive-based ratemaking with conventional "cost-of-service" ratemaking. The current ratemaking mechanism, the Incremental Cost Incentive Pricing (ICIP), ends on December 31, 2003 for SONGS 2&3 and a return to conventional cost-of service ratemaking is proposed in 2004.[16] ORA has based its estimates on this premise.

Furthermore, SCE requests that a flexible outage schedule mechanism be established for Post Test Year Ratemaking (PTYR), similar to that adopted and affirmed in SCE's last three General Rate Cases, because SCE finds it difficult to predict outages for SONGS 2&3.[17] This filing would be in the form of advice letters. ORA concurs with this approach. However, upon review of several FERC Accounts, ORA found that not all of the amount associated with outage costs have been removed and rectified the totals in the relevant accounts.

In the proposed Post Test Year Ratemaking (PTYR) Advice Letter, SCE also suggests the inclusion of "adjustments to expenses to reflect the reallocation of SONGS Common expenses associated with the termination of SONGS 1 Shutdown O&M expense following the removal of the used fuel from SONGS 1 used fuel pool."[18] ORA has no objection to this inclusion.

There are eleven (11) functional groups outlined in SCE's application: Operations, Maintenance, Engineering, Site Projects, RadChemical Control, Regulatory Affairs,

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[16] Exhibit No: SCE-3, Vol. 1 - Policy, Overview, Nuclear, page 2
[17] Exhibit No: SCE-3, Vol. 2, Chapters IX-XVIII, pages 90-95.
[18] Exhibit No: SCE-3, Vol. 2, Chapters IX-XVIII, pages 103.

Security, Training, Nuclear Support, Corporate Support and Participants. There is one or more FERC Accounts within each functional group. Each FERC Account is subdivided in *labor* and *non-labor* amounts. The *non-labor* amount includes materials, consumables, fees and licenses, employee expenses, as well as "contracted labor" and vendor services, which contain a labor element.[19]

Historical Adjustments

SCE used various adjustments aimed at normalizing the historical period (1996-2000). The nature and impact of these adjustments differed in various extents.

There were several adjustments used to reconcile costs under new organizational changes: for example, the Site Projects functional group assuming responsibilities and costs in 1999, which were recorded in 1996-1998 in other functional accounts. Since there was no net effect of these changes to total expenses, ORA accepted these changes.

The following are the historical adjustments for SONGS 2&3:

Adjustment # 1:Remapping of Electric Power Research Institute (EPRI) Expenses

SCE contends that from 1996 to 1998 costs associated with SONGS 2&3 participation in the Electrical Power Research Institute (EPRI) were charged to the Engineering functional group.[20] However, in 1999 those costs and responsibilities were shifted to the Site Projects functional group.[21] This adjustment removes these costs from Engineering to the Site Projects functional group in order to normalize costs in the recorded period: resulting in a net change to total recorded at zero (0).[22]

ORA noted a discrepancy and SCE acknowledged that "the removal of these expenses from Engineering 517 and 524 should have totaled $2,504K and instead total $2,330K, a discrepancy of $174K. The $174K portion of the adjustment was inadvertently missed. SCE used the 5-Year Averaging method to forecast the TY2003

[19] DR-ORA-090, question #1.
[20] Workpapers SCE-3, Vol. 2, Chapter IV, page 1.
[21] Workpapers SCE-3, Vol. 2, Chapter IV, page 1.
[22] Workpapers SCE-3, Vol. 2, Chapter IV, page 1.

values for Engineering 517 and 524. Accordingly, the test year forecast is $35K lower than it should be."[23]

Adjustment # 2: Remapping of Preservation Expenditures

Similar to Adjustment # 1, the responsibilities and costs associated with support to the preservation of plant structures were shifted to the Site Projects functional group in 1999.[24] In this adjustment SCE reassigns expenditures, which were recorded in 1996 through 1998 from the Maintenance functional group to the Site Projects functional group.[25] The net effect of this change was nil.[26]

ORA confirms that the offsets, and the net effect, were appropriately recorded in the workpapers in the relevant FERC Accounts of the Maintenance and Site Project functional groups. ORA accepts this adjustment.

Adjustment # 3: Remapping of Control Room Remodel Project

As in Adjustments # 1 and 2, in 1999 costs and responsibilities associated with the remodeling of the SONGS 2&3 Control room were reassigned to the Site Projects functional group.[27] As a result costs incurred in this area in 1996-1998 had to be shifted from the recorded Nuclear Support functional group to the Site Projects functional group.[28] There was no net change of total recorded costs.[29]

The workpapers indicate that the adjustment was recorded as mentioned. ORA accepts this adjustment.

Adjustment # 4: Remapping of Boric Acid Project

Again, SCE shifted responsibilities and costs from the Engineering functional group and the Site Projects functional group in 1999.[30] This adjustment is meant to reflect

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[23] DR-ORA-011, question # 1.
[24] Workpapers SCE-3, Vol. 2, Chapter IV, page 7.
[25] Workpapers SCE-3, Vol. 2, Chapter IV, page 7.
[26] Workpapers SCE-3, Vol. 2, Chapter IV, page 7.
[27] Workpapers SCE-3, Vol. 2, Chapter IV, page 9.
[28] Workpapers SCE-3, Vol. 2, Chapter IV, page 9.
[29] Workpapers SCE-3, Vol. 2, Chapter IV, page 9.
[30] Workpapers SCE-3, Vol. 2, Chapter IV, page 13.

this change in the historical period for the costs of the Boric Acid Project in 1997-1998; and there was no net change of total recorded costs.[31]

The workpapers indicate that the adjustment was recorded as mentioned. ORA accepts this adjustment.

Adjustment # 5: Remapping of Modification Projects

This adjustment refers to costs associated with modification projects, which shifted from the Engineering functional group and the Site Projects functional group in 1999. These modification projects are defined by SCE as "plant changes which require drawing modifications and focus on equipment functionality improvements and safety."[32] This adjustment transferred historical amounts recorded for modification projects in 1996-1999 to the Site Projects functional group: without any impact on the total recorded cost.[33]

The workpapers indicate that the adjustment was recorded as mentioned. ORA accepts this adjustment.

Adjustment # 6: Remapping of Steam Generator Expenses

This adjustment reflects the shift in costs in 2000 for the SONGS 2&3 Steam Generator Program from FERC Account # 520 to 530 within the Engineering functional group.[34] The 1996-1999 costs were adjusted to reflect this change and resulted in no net change in the recorded cost.[35]

The workpapers indicate that the adjustment was recorded as mentioned. ORA accepts this adjustment.

Adjustment # 7: Remapping of Information Technology – Telecommunications

This adjustment removes 1998-2000 costs associated with telecommunications support at SONGS 2&3 from the Nuclear Support functional group to the corporate

[31] Workpapers SCE-3, Vol. 2, Chapter IV, page 13.
[32] Workpapers SCE-3, Vol. 2, Chapter IV, page 17.
[33] Workpapers SCE-3, Vol. 2, Chapter IV, page 17.
[34] Workpapers SCE-3, Vol. 2, Chapter IV, page 21.
[35] Workpapers SCE-3, Vol. 2, Chapter IV, page 21.

Information Technology Department.[36] This is a reduction in the SONGS 2&3 recorded cost.[37] It is mentioned that with this adjustment, there is no net change for SCE as a whole.[38] Since this falls outside the scope of this testimony, this has not been verified. The workpapers indicate that the adjustment was recorded as mentioned for the SONGS 2&3 O&M part.

ORA accepts this adjustment.

Adjustment # 8: Remapping of Participant Credit Associated with Information Technology Support to SONGS

This adjustment shifts the participants share amounts (credits) from the Participants functional group FERC Accounts # 517 and 524 to the Information Technology Department.[39] This change will in effect reduce the amounts under the Participant functional group.[40] However, SCE notes that there is no change in the net recorded amount.[41] Since this falls outside the scope of this testimony, this has not been verified. The workpapers indicate that the adjustment was recorded as mentioned for the SONGS 2&3 O&M part.

ORA accepts this adjustment.

Adjustment # 9: Nuclear Human Resources Remapping to Corporate Human Resources

In 1999 SCE consolidated all Human Resources functions under the Corporate Human Resource Department.[42] With this adjustment all the amounts from the SONGS 2&3 Human Resources section for 1996-1998 were removed to reflect this change.[43]

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[36] In DR-ORA-012, SCE states that: "The workpapers reflecting the offsetting amount for the historical adjustment entitled "Remapping of Information Technology -- Telecommunications" can be found in SCE-6, Vol. 5, Chapter III, Part 2 of 3, page 153."
[37] Workpapers SCE-3, Vol. 2, Chapter IV, page 25.
[38] Workpapers SCE-3, Vol. 2, Chapter IV, page 25.
[39] Workpapers SCE-3, Vol. 2, Chapter IV, page 29-32.
[40] Workpapers SCE-3, Vol. 2, Chapter IV, page 29-32.
[41] Workpapers SCE-3, Vol. 2, Chapter IV, page 29.
[42] Workpapers SCE-3, Vol. 2, Chapter IV, page 33.
[43] Workpapers SCE-3, Vol. 2, Chapter IV, page 33.

There was no impact on the total recorded.[44] Since this falls outside the scope of this testimony, this has not been verified. The workpapers indicate that the adjustment was recorded as mentioned for the SONGS 2&3 O&M part.

ORA accepts this adjustment.

Adjustment # 10: Remapping of Participants Share of P&B and Payroll Taxes

This adjustment corrects an error where a positive amount was recorded in the Nuclear Support functional group instead of the Participants functional group.[45]
The SONGS 2&3 workpapers indicate that the adjustment was recorded as mentioned from Nuclear Support FERC Account # 524 to the Participants FERC Account # 524.
ORA accepts this adjustment.

Adjustment # 11: Remapping of Participant Share of O&M

This adjustment corrects an error where credit amounts were recorded in the Engineering functional group and the Maintenance functional group instead of the Participants functional group.[46] These amounts were removed and reinstated in the appropriate accounts.

The SONGS 2&3 workpapers indicate that the adjustment was recorded as mentioned from Engineering functional group FERC Account # 517 and Maintenance functional group FERC Account # 528 to the Participants FERC Accounts # 517 and 524.

ORA accepts this adjustment.

Adjustment # 12: Remapping of Division Overhead & Supply Expense Allocations[47]

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[44] Workpapers SCE-3, Vol. 2, Chapter IV, page 33.
[45] SCE states that in 1997 it "recorded the SONGS 2&3 Participants (San Diego Gas &Electric, City of Riverside, and City of Anaheim) share of P&B and Payroll taxes to the SONGS 2&3 Participant Functional Group. These charges show up as a negative dollar value. SCE removed these negative dollar values from the SONGS 2&3 Participant Functional group and put them back into Corporate A&G accounts by recording an offsetting positive dollar amount. This offsetting positive dollar amount was erroneously recorded against the Nuclear Support Functional group as opposed to the Participant Functional group." (Workpapers SCE-3, Vol. 2, Chapter IV, page 36, under "III. Background".)
[46] Workpapers SCE-3, Vol. 2, Chapter IV, page 39.
[47] Workpapers SCE-3, Vol. 2, Chapter IV, page 42.

According to SCE Overhead and Supplies expenses, which were previously charged to two clearing accounts -Trial Balance Accounts (TBA) # 184.620 and 163.410- have as of 2000 been allocated directly to the relevant O&M FERC Accounts.[48] SCE explains that:[49]

> This adjustment reverses the effect of the Overhead and Supply expense allocation process for 1996 through 1999 and applies these same costs to the accounts currently in use. This allows for a more accurate characterization of the costs based on the functional groups that originated the expenditures. This is a net zero adjustment.

ORA reviewed the amounts indicated specific to SONGS 2&3 O&M accounts. (Even though there were considerable amounts to Information Technology, which fall outside the scope of this testimony.)

According to the data provided in the workpapers and ORA-Verbal-3, Question #14, the total amounts are indicated as netting zero.

ORA noted that the total amounts of overhead and supply expense cited as a removal and inserted matched. However, there was a discrepancy between the amounts in the Trial Balance Accounts 2003 amounts and the removal of overhead and supply expense. This discrepancy resulted in an increase of approximately $7 million for overhead and a little over $2 million for supply expense.

SCE explains this difference as follows:[50]

> ..regarding payroll loads associated with overhead allocations and supply expense allocations:
>
> The GRC database contains cost element 'Z' entries for 1997 - 1999 which reverse the payroll loads associated with overheads and Supply expense. This is why it was appropriate for Adjustment 12 to exclude the payroll loads when determining how much to reverse from overhead and supply expense allocations (because we didn't want them to be reversed twice). This explains why we didn't reverse the entire allocation for those years.

[48] This accounting practice was used from 1996 through 1999.
[49] Workpapers SCE-3, Vol. 2, Chapter IV, page 42.
[50] E-mail sent by Jose Perez, SCE Manager, on September 12, 2002.

> For 1996, as we previously discussed, overhead and supply expense allocations were combined in cost element A. Also, there were no payroll loads and therefore no cost element 'Z' entries, and the allocation to O&M was less than the total in the clearing accounts... this is because part of the clearing account was allocated to capital. It was necessary to nevertheless reverse the total costs incurred in the clearing accounts to more accurately adjust historical costs and estimate the test year. The portion of common costs attributable to support of capital projects for 2001-2003 are subsequently removed in adjustment #35, "Allocation of Common O&M".

ORA accepts this adjustment as part of the forecast based on the information provided in the workpapers and data request responses. ORA did not review the underlying data in the TBAs and SCE's accounting practices.

Adjustment # 13: Remapping of A&G Costs to Nuclear Functional Groups

This adjustment transfers some of the nuclear-related expenses previously recorded to Corporate A&G to the appropriate nuclear FERC Accounts incurring those expenses in order to normalize the historical recorded amounts.[51] These expenses include "membership fees in professional work-related organizations, and nuclear work related functions performed by other SCE departments are now charged to nuclear FERC Accounts. Other costs, particularly SONGS site lease costs, continue to be charged to A&G accounts, but are nuclear related expenditures."[52]

The SONGS 2&3 workpapers indicate that the adjustment was recorded as mentioned. ORA accepts this adjustment.

Adjustment # 14: Material & Supplies (M&S) Inventory Adjustment

The purpose of this adjustment is to normalize the historical recorded O&M costs by removing Material & Supplies (M&S) costs from 1996 to 2000.[53]

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[51] Workpapers SCE-3, Vol. 2, Chapter IV, page 131.
[52] Workpapers SCE-3, Vol. 2, Chapter IV, page 131.
[53] SCE refers to adjustment as addressing transactions recorded under the Incremental Cost Incentive Pricing (ICIP), which are no longer charged to O&M under traditional rate making. (Workpapers SCE-3, Vol. 2, Chapter IV, page 135.)

The SONGS 2&3 workpapers indicate that these amounts were removed from Nuclear Support functional group FERC Account # 528 and from Maintenance FERC Account # 532. ORA accepts this adjustment.

Adjustment # 15: Material & Supplies (M&S) Depreciation Expense

This adjustment corrects an error where depreciation expense of SONGS 2&3 Material & Supplies (M&S) was attributed to O&M.[54]

The SONGS 2&3 workpapers indicate that these amounts were removed from Maintenance FERC Account # 532. ORA accepts this adjustment.

Adjustment # 16: Marine Mitigation Accrual

This adjustment removes SONGS 2&3 Marine mitigation project costs, which are not applicable to the future O&M estimate.[55]

The SONGS 2&3 Workpapers indicate that these amounts were removed from Nuclear Support FERC Account # 524. ORA accepts this adjustment as recorded.

Adjustment # 17: Transfer of Information Technology Support Costs to Nuclear

This adjustment transfers expenses related to software and hardware support functions from the Information Technology Business Unit to the Nuclear Support functional group, because this is the group that plans and controls these expenses.[56]

The SONGS 2&3 Workpapers indicate that these amounts were added to Nuclear Support FERC Account # 517. ORA accepts this adjustment as recorded.

Adjustment # 19: Participant Share of Refueling & Mid-Cycle Outage costs

This adjustment removes the participant share (credit) associated with the refueling and mid-cycle outage expenditures from the historical recorded period 1996-2000.[57]

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[54] Workpapers SCE-3, Vol. 2, Chapter IV, page 140.
[55] SCE removed the "accrual accounting entries from O&M for 1997-2000". (Workpapers SCE-3, Vol. 2, Chapter IV, page 141.)
[56] Workpapers SCE-3, Vol. 2, Chapter IV, page 150.

The SONGS 2&3 Workpapers indicate that these amounts were added to Participant FERC Accounts # 517, 520, 523, 524, 528, 528, 529, 530, 531 and 532. ORA accepts this adjustment as recorded.

Adjustment # 20: SONGS Training Program – State Refund Credits

In Adjustment #20, SCE removes State Refund credits amounts from the historical record (1998-2000) received from the State of California for participating in the Employment Training Panel (ETP) programs. This cooperative business-labor program is aimed at improving the economic climate by training new workers and retraining workers facing lay offs as a result of technological advancements in the workplace, foreign and domestic competition. SCE mentions that "SONGS 2&3 is no longer eligible to participate in the ETP programs because, based on existing regulations, any training, that is repetitive of the initial contract, may not be included in a new contract. Because the majority of our training is of a continuing nature, reinforcing concepts and tasks for individuals, it is repetitive of the initial contract. The substantial effort to enter into a new contract and ensure that no repetitive training is included is not warranted at this time."[58] ORA has no objection to SCE's decision not to participate in this program at the time of this filing. However, SCE also states that "SONGS did not opt out of the ETP programs"[59] altogether and that it "will periodically assess the ETP regulations and our training needs to determine if participation is warranted in the future."[60] ORA maintains that these State Refund Credits should continue to be reflected as a credit in the corresponding historical/recorded O&M FERC Account. And therefore, ORA objects to the reversal of these credits to costs in Training FERC Account 524 as proposed by SCE with this adjustment.

Adjustments # 21 through 28: Refueling and Mid-Cycle Outages

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[57] SCE removed refueling and mid-cycle outages from the historical period in Adjustments # 21 through 28. (Workpapers SCE-3, Vol. 2, Chapter IV, page 151.) Therefore, Participant share has to be removed accordingly.
[58] DR-ORA-032, question # 1.
[59] DR-ORA-032, question # 1.
[60] DR-ORA-032, question # 1.

According to SCE's background explanation: "In Adjustments #21 through #28, SCE removes the 100% level of expenditures associated with refueling and mid-cycle outages from the historical period."[61] However, ORA detected positive Non-Labor amounts in Nuclear Support FERC Account 528 Unit 2 Cycle 11 and Unit 3 Cycle 11 Refueling outage. SCE explains that these positive amounts "are reversals for material returned to inventory. These material credits were for circulating water pump assemblies removed during Cycle 10, in 1999, and subsequently rebuilt and returned to inventory in 2000. The material credits were applied to a non-divisional outage account to allow for needed visibility."[62] ORA accepts this explanation.

Adjustment # 29: Year 2000 (Y2K) Nuclear Support Costs.

Adjustment # 30: Year 2000 (Y2K) Nuclear Replenishment of Nuclear Support Costs & Deferrals.

Adjustments #29 and #30 refers to expenditures incurred for the Y2K project. In Adjustment # 29 SCE removes these one-time Y2K support costs from the 1998 through 2000 historical recorded period. However, in Adjustment # 30 "Y2K Replenishment of Nuclear Support Costs & Deferrals" SCE restores these same amounts and adds additional amounts borrowed from other departments to deal with Y2K. It states that "to create funding for the Y2K project, SCE required business units to reduce their O&M expenditures. This one-time event resulted in deferral of work to be performed in the future."[63] SCE provided no specific information on "deferred work" and furthermore stated that "all of the deferred activities are now complete."[64] Accordingly, ORA disagrees with the inclusion of historical adjustment #30. However, ORA concurs with Adjustment #29.

Adjustment # 31: SCE Voluntary Retirement Offer (VRO)

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[61] DR-ORA-025, question # 1.
[62] DR-ORA-025, question # 1.
[63] Workpapers, SCE 3, Vol. 2, Chapter IV, page 189.
[64] ORA-Verbal-3.

This adjustment removes expenses related to the Voluntary Retirement Offer (VRO) from the historical recorded O&M costs, as well as labor costs associated to the 176 Edison employees prior to their retirement.[65]

The SONGS 2&3 Workpapers indicate that these amounts were removed from the following accounts:

- Operations functional group FERC Accounts # 517 and 524.
- Maintenance functional group FERC Accounts # 528, 529, and 531.
- Engineering functional group FERC Accounts # 517 and 528.
- Radchemical Control functional group FERC Accounts # 520 and 524.
- Regulatory Affairs functional group FERC Accounts # 517 and 524.
- Security functional group FERC Accounts # 517 and 524.
- Training functional group FERC Account # 524.
- Nuclear Support functional group FERC Account # 517, 524 and 532.

ORA found an error in the 1997 Non-labor amounts in the Nuclear Support functional group FERC Account # 524, where $118K was debited instead of being credited.[66] ORA corrected this error.

Adjustment # 32: Accrued Severance Costs

This adjustment removes an accounting entry for estimated severance costs in 2001, which was recorded in the Nuclear Support functional group FERC Account # 517, because "it was not an actual expenditure".[67] ORA accepts this adjustment.

Adjustment # 33: Institute of Nuclear Power Operations (INPO) Annual Fee

The annual fees for the Institute of Nuclear Power Operations (INPO) for 1998 and 1999 were paid in 1998.[68] This adjustment corrects the historical recorded period to include one annual fee payment.[69] ORA accepts this adjustment.

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[65] Workpapers, SCE 3, Vol. 2, Chapter IV, page 193.
[66] Workpapers, SCE 3, Vol. 2, Chapter XIII, Part 1 of 2, page 61.
[67] Workpapers, SCE 3, Vol. 2, Chapter IV, page 200 and Workpapers, SCE 3, Vol. 2, Chapter XIII, Part 1 of 2, page 18.
[68] Workpapers, SCE 3, Vol. 2, Chapter IV, page 205.
[69] Workpapers, SCE 3, Vol. 2, Chapter IV, page 205.

Historical & Future Adjustments

SCE had two (2) adjustments aimed at normalizing the historical period (1996-2000) and increasing/decreasing future estimates in the forecasted period (2001-2003):

Adjustment # 34: Change Management

SCE describes the Change Management Program as "a formal and focused effort to use self-assessment and applicable industry best practices to identify beneficial changes."[70] This self-assessment resulted in various planned initiatives, including staffing reductions.

This adjustment reflects the impact of the Change Management Program to specific functional groups and FERC Accounts. There were four changes undertaken with this adjustment:[71]

a) Adds $1.7 million in staff reductions realized through the Change Management Program back to the record for 2000 in order to normalize the expenditures during the historical period;
b) Removes $949K in one-time, non-recurring consultants costs contracted to assist in the development of the Change Management Program;
c) Removes a total of $6.8 million for 2001, $13.3 million for 2002 and $15.5 million for 2003 associated with staffing reductions as a result of the Change Management Program; and
d) Adds a total of $236K for 2001 and $551K for 2002 in projected severance costs.

ORA accepts this adjustment.

Adjustment # 35: Allocation of "Common" O&M

The first part of the adjustment refers to the reallocation of Common O&M expenditures in 2000. Prior to 2000, these expenditures for SONGS 2&3 and SONGS 1

[70] Exhibit No. SCE-3, Vol. 2, Chapter II, page 11, lines 18-19.
[71] Workpapers, SCE 3, Vol. 2, Chapter IV, page 209-216.

Shutdown O&M were allocated to Common accounts.[72] However, after 2000 Common O&M costs were allocated to the direct work cost categories.[73] This adjustment attempts to normalize the 2000 recorded with the historical cost for 1996 through 1999.[74] This is an increase of a total of $11.5 million back to year 2000.

The second part of the adjustment reallocates the Common O&M costs in the future years to "SONGS 1 Shutdown O&M, SONGS 1 Decommissioning and SONGS 2&3 Capital …(and) the Common O&M costs not allocated are included in the SONGS 2&3 O&M estimate." This is a reduction of a total of $12.5 million for 2001, $14.6 million for 2002 and $13.7 million for 2003 estimates.

ORA accepts this adjustment.

Future Adjustments

There are several adjustments aimed at increasing/decreasing future estimates in the forecasted period (2001-2003):

Adjustment # 36: Nuclear Regulatory Commission (NRC) License Fees

In Adjustment # 36 SCE adds an increase to NRC fees in 2001 and 2002, and a decrease in 2003. (Workpapers, SCE-3, Volume 2, Chapter IV, pg. 221-225.) Here are detailed calculations and explanation for these increases/decreases and reference quote in current federal law:[75]

> Adjustment #36 includes the incremental costs for 2001-2003 over the last recorded year (2000) of $7,125,500 for (a) 10 C.F.R.171, Annual NRC fees and (b) 10 C.F.R. 170, License and Inspection fees.
>
> (a) The Annual NRC fee for 2001 is $2,753,000 per unit and is based on the amount as published in the Federal Register, Part III, 10 C.F.R. Parts 150 et. al., page 32463. The Annual NRC fees for 2002 ($2,697,940 per unit) and 2003 ($2,642,880 per unit) are based upon the 2001 amount, reduced by 2% ($55,060 per unit) per year as published in the Federal Register, Part III, 10 C.F.R. 150 et. al., page 32452…

[72] Workpapers, SCE 3, Vol. 2, Chapter IV, page 217.
[73] Workpapers, SCE 3, Vol. 2, Chapter IV, page 217.
[74] Workpapers, SCE 3, Vol. 2, Chapter IV, page 217.
[75] DR-ORA-104, question #3.

(b) The NRC License & Inspection fees for 2001 through 2003 is estimated at $915,000 per unit and is based on historical expenditures and the type of inspections and submittals SCE's expects to make in the forecast year.

In summary, the estimate of total NRC fees (Part 171 and 170) for 2001-2003 are: (2000$, 100% level)

	Per Unit	# of Units	Total
2001	$3,668,000	2	$7,336,000
2002	$3,612,940	2	$7,225,880
2003	$3,557,880	2	$7,115,800

The adjustment values for 2001-2003 were derived by comparing the above estimates to the last recorded year expenditure of $7,125,500 (2000 $) with the difference being reflected in this adjustment.

(2000$, 100% level)

	Per Unit	# of Units	Less: Total[(a)]	Last Recorded Yr	Delta
2001	$3,668,000	2	$7,336,000	$7,125,500	$210,500
2002	$3,612,940	2	$7,225,900	$7,125,500	$100,400
2003	$3,557,880	2	$7,115,800	$7,125,500	($ 9,700)

[(a)]Rounded to nearest $100.

ORA accepts this adjustment as estimated.

Adjustment # 37: Emergency Plan Program Fees

This adjustment reflects an estimated increase $480K in annual fees from the California Governor's Office of Emergency Services for 2001 through 2003. SCE bases these estimates on the amended California Government Code Section 8610.3, and the amended California Health and Safety Code, Section 114650.[76]

ORA accepts this adjustment.

Adjustment # 38: Funding for Nuclear Rate Regulation

SCE states that costs associated with the administration/preparation of the General Rate Case are not reflected in the historical period (1997-2000).[77] This adjustment is aimed at estimating these costs in the future years (2001-2003) now that SCE is requesting a return to cost-based ratemaking.

> Herein is the annual breakdown of the last GRC-related costs:[78]
> The Nuclear Rate Regulation (NRR) O&M expenditures for the 1992 through 1996 period are provided below:
>
> (Constant 2000 dollars x 000, 100% level)
>
1992	**1993**	**1994**	**1995**	**1996**
$409	$882	$544	$445	$483 = $552 average per year
>
> In addition to the above costs, there were some SONGS personnel matrixed to NRR during this period but their costs were charged to their home division and are not retrievable from the SCE accounting system. The equivalent SCE staff during this period, including matrixed personnel, was approximately 7 FTE per year which is consistent with the staffing included in Adjustment #38.
>
> The above 1996 expenditures are included in the base adjusted recorded costs for the Nuclear Support functional group, FERC account 524 in the 2003 GRC filing. However, the 2001 through 2003 forecast for this FERC account was based on a four year average (1997-2000) which excluded the above 1996 expenditures. Hence, SCE needed to make Adjustment #38 to accurately reflect costs of rate case proceedings.

ORA recommends that a five (5) year average (1992-1996) should be used in determining the increment from ORA's base estimate on the basis that this period represents actual expenditures under cost-based ratemaking.[79]

Thus, the recommended adjustment is $552K for Test Year 2003. This represents a decrease of $224K from SCE's estimate.

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[76] Workpapers, SCE 3, Vol. 2, Chapter IV, page 231.
[77] With the introduction of the Incremental Cost Incentive Pricing agreement in 1996, these activities and costs were no longer recorded. (Workpapers, SCE 3, Vol. 2, Chapter IV, page 243-245.)
[78] DR-ORA-104, question #2.
[79] ORA's methodology for the affected account - Nuclear Support FERC Account # 524 - is a 3-year average (1998-2000), and therefore the increment of a five-year average (1992-1996) of costs is the most appropriate.

Adjustment # 39: Site Projects

According to the workpapers SCE mentions that the activities under the Site Projects develop as a result of Action Requests (ARs) or to external events or requirements and that the "quantity and scope of Site Projects can vary from year to year."

There were no details submitted on how cost estimates for these projects were developed. However, SCE determined estimates as follows:[80]

> For those projects that modify the plant and have sufficiently progressed through the engineering process, an estimate is based on a scope of work prepared by the responsible engineer and provided to the estimator. The estimator typically conducts a walkdown (a visit to the location of the plant area affected by the modification) in conjunction with the responsible engineer and the implementing organization. This step typically results in a clarification of the work scope. The estimator prepares an estimate commensurate with the level of detail that is available (rough order of magnitude or detailed). It is composed of engineering, material, implementation, and indirect costs determined by the estimator through a variety of methods including personal experience, vendor quotes, and estimating handbooks. Contingency is added that corresponds to the level of scope in order to account for errors, omissions, and uncertainties. The estimate is validated through a review, comment, and approval process. For those projects that modify the plant and have not sufficiently progressed through the engineering process or for those projects that are studies/industry group related an estimate is based on input from the Project sponsor and validated by SONGS' cost professionals using historical costs or confirmation with the applicable vendor(s).

According to SCE's data request response none of the projects listed outlined for Site Projects have been approved by the Site Integrated Project Committee (SIPC), which is in charge of approving and of prioritizing these projects.[81]

In a review of the SIPC minutes of the meetings, covering sporadically the period of January 1999 to March 2002, ORA found several problem areas highlighted:

[redacted]

[80] DR-ORA-045, question #3.
[81] The only approval noted was for the Plant Preservation project and the RCP Seal Rebuild Material project. However, no supporting documents were submitted to ORA. (DR-ORA-Verbal-15.)
[82] See SONGS 2&3 SIPC Meeting Minutes 3/25/99, under point 1; and Minutes 10/21/99, point 2d.

[redacted]

3) [redacted]

ORA rejects this adjustment, because SCE has not substantiated the need for these increases. Furthermore, no detailed project outlines with cost breakdown were provided for ORA's review.[85]

Adjustment # 40: Master Insurance Program (MIP)

In Adjustment #40, SCE states that it "charged SONGS accounts for deposit premium payments for this insurance program based on the total cost of contractors used during the year by SONGS 2&3."[86] SCE explains how this was done and an annual breakdown of the contractors' cost as follows:[87]

> As stated in Adjustment #40 of Workpapers (SCE-3, Vol. 2, Chapter 4 pg 251), "Prior to October 1999, SCE maintained a Master Insurance Program (MIP) that provided workers compensation coverage for contractors...." For the years 1996 to October of 1999, SONGS would estimate expenses for the contractors which were part of the MIP program. These estimates were used by SCE's Corporate Risk Management Department to derive the insurance premium….
>
> Since October of 1999, SCE has required all contractors to carry their own insurance coverage. However, as explained in Adjustment # 40, SCE continues to cover claims for work prior to October 1999. Chubb depleted the deposit fund in late 1999. With the fund now depleted, SCE must reimburse Chubb for all year 2000 and future claims

[83] SONGS 2&3 SIPC Meeting Minutes 5/22/00, point 1; Meeting Minutes 1/22/00, point 2; Minutes November 27, 2001, point 3, page 3; Meeting Minutes December 17, 2001, point 2, page 4; and Minutes October 29, 2001, point 2b on SIPC Cost Report 2001.
[84] SONGS 2&3 SIPC Meeting Minutes November 27, 2001, point 3, page 4.
[85] DR-ORA-Verbal-15, question # 1.
[86] Workpapers, SCE-3, Volume 2, Chapter IV, page 251.
[87] DR-ORA-104, question # 4.

for contractors covered under the original MIP program. Adjustment # 40 provides an allowance for the cost of these future workers' compensation claims.

In addition, SCE emphasizes that to date the number of contractors and the pool of eligible claimants has remained unchanged since prior to the end of the MIP program.[88] And that these claims consist primarily of workers compensation costs associated with illnesses, for example, related to asbestos and Electro Magnetic Field (EMF).[89]

ORA accepts this adjustment. However, ORA modified the amount according to its revised estimate of Nuclear Support FERC Account # 528.

Adjustment # 41: Scarcity of Labor Resources

In this adjustment SCE discusses labor shortages it faces - similar to the nuclear industry- for certain "nuclear trained" personnel. SCE proposes additional costs to be spent in order to attract and retain qualified "nuclear trained" personnel, as well as to create a pipeline for potential future employees.

SCE intends to recruit and train 24 "critical" hires: Nuclear-Trained Engineers (12), Nuclear Technicians (3) and Technical Specialists (9).

The adjustment consists of:

1. Hiring costs, i.e. relocation costs, housing allowance, sign-on and referral bonuses.[90]
2. Training costs.
3. Training overlap costs.[91]
4. Summer hire program for High School students.
5. Summer hire program for College students.

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[88] Phone conference call with Jose Perez, Manager SCE, on 09/16/02.
[89] Phone conference call with Jose Perez, Manager SCE, on 09/16/02.
[90] In 2000, relocation program paid approximately $39K per person. In this adjustment the estimated total hiring cost for 2003 is $951K, or approximately $40K per person –assuming that every new hire receives this package. (Data Request Set Audit-BH-04; Workpapers SCE-3, Chapter IV, page 258 and DR-ORA-082.)
[91] Training overlap is explained as followed: "SCE will attempt to hire in advance of projected attrition. For every two employees projected to leave, SCE will hire in advance of projected attrition. This ensures that trained workers are available for full qualification as attrition occurs. Training overlap is the term used to

SCE, herein, describes the Scarcity of Labor as follows:[92]

> Critical positions are defined as nuclear-trained engineers, technical specialists, and nuclear technicians. The basis for these positions being defined as critical is as follows:
>
> Nuclear-Trained Engineers - Industry demographics, the years of experience required to become a seasoned Nuclear-Trained Engineer, and industry studies reflecting a decrease in nuclear engineering programs offered by educational institutions are factors that have led SCE to identify Nuclear-Trained Engineers as critical positions.
>
> Nuclear Technicians - SCE internal bid and transfer experience, past recruitment experience, hiring test experience, industry studies, educational requirements, and SONGS' demographics are factors that have lead SCE to identify Nuclear Technicians as critical positions.
>
> Technical Specialists - Recruiting efforts required to find seasoned Technical Specialists, industry studies, and SONGS demographics are all factors that have led SCE to identify Technical Specialists as a critical position.

There were several documents provided to justify this "scarcity of labor adjustment:"

a) The Towers Perrin report on "Nuclear Power Industry Labor Market Forecast" dated July 15, 2001 was commissioned by SCE. This study is specific to SONGS' labor needs and it basically makes the case for increased financial incentives in order to attract and retain staff. The reports states that:[93]

> Traditionally, new hires received less financial assistance than current employees, however, in the low employment, highly specialized business environment of today, organizations are extending more robust relocation packages for talent they need due to the competition for talent.

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describe the increase in labor costs associated with the advance hiring." (Exhibit No.: SCE-3, Vol. 2, Chapters I-V, page 26, lines 9-13.)

[92] DR-ORA-084, question # 1.

[93] Towers Perrin report on "Nuclear Power Industry Labor Market Forecast", page 30.

b) The Nuclear Energy Institute (NEI) report on "Nuclear Pipeline Analysis" dated December 17, 2001.[94] Upon submitting this report SCE made a clarification on the difference between the NEI report and its GRC Testimony in Exhibit No. SCE-3, Volume 2:

> (The) NEI separated engineers into two groups: (1) nuclear engineers, defined as reactor, core physics, nuclear fuel specialties, and (2) other engineers. SCE combined all engineers who worked in the nuclear industry into nuclear engineers (i.e. an EE working as an engineer, such as a design engineer, at a nuclear plant is referred to as a nuclear engineer for the purposes of SCE's Labor Scarcity testimony.

This is an important distinction, because the NEI report indicates that the shortage over the next 10 years is specific to their narrow definition of a nuclear engineer, and therefore does not corroborate SCE's scarcity argument for its definition of a Nuclear-Trained Engineer.

The NEI report states that "for the most part, the supply of prospective and non-degreed workers can meet the industry's needs, but there are some exceptions and challenges."[95] It specifically mentions that the labor shortage over the next ten years will impact specifically nuclear engineers and health physicists. In addition, historically "stiff competition from other industries" created difficulties in attracting into the nuclear industry significant numbers of Operators & Technicians, Other Engineers and Mechanical, Electrical and I&C Craft/Technicians out of the available labor pool.[96]

c) Another study commissioned by SCE was the Martin &Associates Report on "SONGS Staffing Comparison for Southern California Edison" dated September 9, 1999.[97] This study compared SONGS staffing to the industry median in the following functional groups: plant functions, technical functions, plant support functions, nuclear assurance and administrative functions. The findings indicate that SONGS is 53% to

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[94] Navigant Consulting prepared this report for the Nuclear Energy Institute.
[95] Attachment Q. 1 to DR-ORA-003.
[96] Attachment Q. 1 to DR-ORA-003.

[97] This study used staffing data as at June 30, 1999. (Martin &Associates Report on "SONGS Staffing Comparison for Southern California Edison" page 4.)

117% staffed above the 2 Unit power industry median: in fact the "total staffing of 2,134 is about twice of other large 2 Unit power plants (greater than 800 MWe)."[98]

ORA tried to correlate the positions defined as "staffed below the 2 Unit industry median" in the Martin report, but these did not coincide with those indicated as "critical" in Adjustment # 41.[99]

d) Another submission in SCE's workpapers was on "Labor Market Trends for Nuclear Engineers 2000 through 2005" from the U.S. Nuclear Regulatory Commission dated October 2000.[100] This study focuses on new graduates and employment opportunities available in 2000-2005. It mentions that the "scarcity" of nuclear engineering graduates was based on a strong U.S. economy providing for competing opportunities:

> Nuclear engineering majors are expected to continue to find many job opportunities outside of the nuclear energy/nuclear weapons fields. These jobs will be both the expanding fields for nuclear engineers…and in the general labor market for technical personnel. This will be the case as long as the economy continues to grow, thereby keeping demand for engineering skills high. Moreover, the number of jobs available for new graduates in the nuclear energy/nuclear weapons fields is expected to remain stable or improve slightly over the next five years. More replacement positions will occur and many more of these are expected to be filled as the electric utility industry adjusts to deregulation and looks to maintain or add power generating capacity. This will be particularly the case if the price of natural gas continues to remain high and the economy continues strong growth with concurrent needs for more electric power.

Adjustment # 41 as described in SCE's testimony, workpapers, data request responses and meetings do not support the need for these incremental costs impacting various SONGS FERC Accounts.

1) On the scarcity issue, SCE's supporting documentation does not justify "scarcity" of critical positions, as defined in SCE's testimony and workpapers. Some of the information lacking is:

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[98] Martin &Associates Report on "SONGS Staffing Comparison for Southern California Edison" pages 11-17.
[99] Martin &Associates Report on "SONGS Staffing Comparison for Southern California Edison" page 18.

- Past experience indicating the need for hiring incentives to attract new employees, especially in the positions identified by SCE. In fact, SCE admits that there were no past or current failed recruitment efforts.[101]
- Divisional requirements for new hires based on attrition rate and specific vacancy positions.
- Job descriptions/classification were not provided. In fact, SCE has developed "broad" definitions for these "critical" positions.

2) Actual training requirements are not available for intended new hires. SCE based its training and overlap training on the estimated number of instructors and training hours.[102] Therefore, there is no correlation between estimated training courses/modules and estimated cost.

3) The need of expenditures above historical amounts in training. Since SCE is not requesting incremental costs associated with salaries and benefits for those "critical" positions, SCE does not explain anywhere in its testimony, workpapers and follow up data requests as to why training and certification historical expenditures imbedded in various SONGS 2&3 FERC Accounts from 1996 to 2000 are insufficient to meet the training and certification requirements of the new hires, especially vis-à-vis anticipated attrition.

4) The plans for the 2002 summer hire program for college and high school students, at the time of this writing, have not been developed and implemented. Thus, limiting ORA's review of this request to a brief description provided in a data request response.[103] And historical

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[100] The Oak Ridge Institute for Science and Education prepared this report for the U.S. Nuclear Regulatory Commission.
[101] DR-ORA-084, question # 1.
[102] Workpapers SCE-3, Chapter IV, page 261 and DR-ORA-082
[103] See DR-ORA-084, question # 3.

data and analysis on the summer hire college students' program was not available.[104]

5) In addition, the current state of the economy and the impact it might have on this adjustment was not addressed.

Thus, ORA rejects the inclusion of this adjustment as an increment to the base Test Year estimate.

Adjustment # 42: Nuclear Regulatory Commission (NRC) Mandated Program Compliance.

Regarding Adjustment # 42 on *Nuclear Regulatory Commission (NRC) Mandated Program Compliance* is related to a series of specific NRC requirements and/or NRC-endorsed requirements. According to SCE "these requirements include new seismic, fire protection, American Society of Mechanical Engineers (ASME) standards, and requirements for monitoring the effectiveness of maintenance."[105] These NRC rules and NRC endorsed guidelines for implementing the rules are outlined below:[106]

1. ASME National Standard ASME RA-S--2002, "Standard for Probabilistic Risk Assessment for Nuclear Power Plant Applications", April 2002 (Expected to be endorsed by NRC for PRA Quality in its proposed new regulatory guide, "Use of Consensus PRA Standards and Industry Programs in Evaluating the Technical Adequacy of PRA Results for Risk-Informed Activities" due out December 2002.

2. ANSI/ANS-58.21, "External Events PRA Methodology", May 16, 2002 (expected to be endorsed by the NRC for PRA Quality standard for external events)

3. Draft NRC Rule 10CFR50.69, "Risk-informed Treatment of Structures, Systems, and Components", April 3, 2002

4. NEI-00-04, Rev C, "10CFR50.69 Implementation Guideline," Expected July 2002.

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[104] The summer hire program for High School students is a new program. However, according to SCE's brief description in DR-ORA-084 this program is similar to ongoing training conducted by SCE at high schools as part of its community outreach program. On the basis of the information provided ORA has no way of determining the overlap/duplication between those two programs and as to why those training/outreach costs recorded in the historical period are now insufficient to meet the objectives of this program. (Visit to SONGS on 23 May, 2002, and phone conversation with Jose Perez, SCE Manager, on September 23, 2002.)

[105] DR-ORA-104, question #5.

[106] DR-ORA-104, question #5.

5. Draft NRC Reactor Oversight Process Inspection Manual 0609 Appendix J, "Steam Generator Tube Degradation Findings Significance Determination Process," March 2002.

6. Draft NRC 10CFR50.48, "Fire Protection", December 2001.

7. National Fire Protection Association's (NFPA) "NFPA 805 Performance- Based Standard for Fire Protection for Light Water Reactor ElectricGenerating Plants 2001 Edition," 2001.

8. NRC 10CFR50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants"

9. 9(a) NUMARC 93-01, Revision 3, "Industry Guidelines for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants", July 2000. (Endorsed by NRC Regulatory Guide 1.182 for implementation of 10CFR50.65(a)(4) requirements)

   9(b) NUMARC 93-01, Supplement, Revision 2, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants" April 1996

10. NRC Reactor Oversight Process Inspection Manual 0609 Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," March 2002.

    ORA accepts this adjustment.

Adjustment # 43: Participant Share Credits for SONGS 2&3

This adjustment calculates the participant share amounts (credits) for O&M expenses for SONGS 2&3 forecast years (2001-2003) in order to identify SCE's share of these costs.[107]

ORA agrees in principle with this adjustment. However, ORA recalculates these participant share credits on the basis of our recommendations.

Adjustment # 45: New Security Requirements

[107] Workpapers SCE-3, Volume 2, Chapter IV, page 267.

Adjustment # 45 relates to New Security Requirements as a result of September 11, 2001.

On September 11, 2001, approximately 40,000 marines from Camp Pendlenton protected SONGS as per federal directive. Under current arrangements, Camp Pendlenton -which surrounds the plant- is an integral part of the security plan for SONGS. In addition, the U.S. Coast Guard has established a fixed security zone in the waters adjacent to the plant.

Post-September 11, the NRC (Nuclear Regulatory Commission) recommended the implementation of the following: "strengthening perimeter security, verifying integrity of vehicle barriers, severely limiting plant access and increased search activity."[108] SCE complied this recommendation by ensuring round the clock security with the existing number of staff working overtime.[109] SCE plans in 2002 to increase the number of security post by 113 and the estimated costs associated with that increase are reflected in 2002 and 2003, as well as post-2003.[110]

The NRC found SCE in compliance after several post-September 11 assessments conducted at SONGS 2&3:[111]

> SONGS has received several NRC Advisories subsequent to 9/11/01 including a significant one on October 6, 2001. Elements of theses advisories were implemented immediately in order to remain in compliance with NRC requirements.
>
> On February 25, 2002, the NRC issued an Order modifying the operating licenses for SONGS Units 2&3 to require compliance with specified interim safeguards and security compensatory measures. The Order requires responses and actions within specified deadlines, with completion of the last requirement no later than August 31, 2002. SONGS was already in compliance with certain elements of the order when it was issued and intends to complete implementation of all remaining requirements in the Order by August 31, 2002, as required by the NRC.

SCE also provides in the workpapers information about the Nuclear Security Act of 2001, Bill # S. 1746, which may have an impact on post-September 11 security costs at

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[108] Workpapers SCE-3, Volume 2, Chapter IV, page 273.
[109] DR-ORA-085, question #4: "No new hires were included in the 2001 forecast."
[110] This represents approximately a threefold increase in the number of guards from the 2000 annual average number of security posts. DR-ORA-085, question #3 about FERC Account #524.
[111] DR-ORA-096, question #2.

nuclear plants. This bill is still being deliberated in Congress. ORA encloses a copy of this bill as an attachment. In general, the bill proposes the deployment of a federal security force at sensitive nuclear facilities.[112] This new security force will become employees of the Nuclear Regulatory Commission (NRC) and security planning for these facilities will fall under its jurisdiction. The bill further states that a *Nuclear Security Fund* will be established for the NRC to administer these programs through a licensees' fee and appropriations.[113]

There are several entities currently involved in assessing and devising new security arrangements for nuclear plants as part of protection of critical infrastructure. It is premature at this time to accept SCE's proposed increase in the number of security guards, especially when considering that cost-sharing arrangements at the federal and state level have not been determined.

Furthermore, national security matters to meet these new threats fall largely under the jurisdiction of the federal government. California ratepayers should not be exclusively obligated to bear the burden associated with this type of expense.

The nuclear industry is confident that it is able to meet very specific types of threats, i.e. intrusion of a vehicle or person/s.[114] This was confirmed by SCE's officials, during ORA's visit at SONGS in May 2002, when describing past security arrangements. Since SCE has not raised in the past the issue of the plant being unable to deter, for example the intrusion of a vehicle or person/s based on the recorded amounts for security, ORA assumes that the historical amounts for security were sufficient to meet this type of threat.

On the basis of the information available today, ORA recommends that the $5,650K amount in Adjustment #45 be removed from the 2003 estimate.

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[112] Bill S. 1746, Section 2, defines a "sensitive nuclear facility" as 1) a commercial nuclear power plant and associated spent fuel storage facility; 2) a decommissioned nuclear power plant and associated spent fuel storage facility; 3) a category I fuel cycle facility; 4) a gaseous diffusion plant; and 5) any other facility licensed by the Commission, or used in the conduct of an activity licensed by the Commission, that the Commission determines should be treated as a sensitive nuclear facility under section 170C."

[113] Bill S. 1746, Section (f) Nuclear Security Fund, page 10-13 of the bill.

[114] DR-ORA-085, question #1, an article by the Nuclear Energy Institute (NEI) entitled "*America's Changing Domestic Security: The Impact on Nuclear Power Plants*." (Fourth Quarter 2001, page 4.)

Account by Account Analysis – SONGS 2&3

Operations Functional Group

FERC Account # 517: Operation supervision and engineering.[115]

There are two (2) adjustments affecting the historical period: 1) Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations; and Adjustment # 31 regarding SCE Voluntary Retirement Offer.[116] These are credited amounts that reduce the recorded/adjusted total for this account.

For the labor estimate, SCE uses a four-year average to account for the inclusion of Shift Technical Advisers (STAs), which were "transferred the STA function to the Operations Division from the Station Technical Division in mid-year 1997."[117] And it states: "A 5-Year Average was inappropriate because of the 1997 transfer of the supervisor of the Shift Technical Advisers (STAs). The 3-Year Average provides funding levels in excess of our requested requirement and was therefore rejected. The 4-year Averaging method for labor costs is $36K less than the Last Recorded Year."[118]

Regarding the non-labor estimate a five-year average is used, which reflects year to year fluctuations in industry group participation and associated travel costs.

ORA agrees with SCE's labor and non-labor estimates for this account.

FERC Account # 519: Coolants and water.[119]

There is only one (1) adjustment affecting the historical period and this is Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations.[120] These are credited amounts that reduce the recorded/adjusted total for this account.

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[115] The FERC defines this account as including the cost of labor and expenses incurred in the general supervision and direction of the operation of nuclear power generating stations. (FERC website.)
[116] See Footnotes # 47 and # 61 respectively.
[117] Exhibit SCE-3, Vol. 2, Chapters I-V, Footnote # 41.
[118] DR-ORA-009, question # 4.
[119] The FERC defines this account as including the cost of labor, materials used and expenses incurred for heat transfer materials and water used for steam and cooling purposes. (FERC website) SCE includes in this account "costs of chemicals used to maintain appropriate chemistry for various SONGS 2&3 fluids and fluid treatment systems." (Workpapers SCE-3, Vol. 2, Chapter V, page 15.)

SCE calculates the non-labor estimate for this account on the basis of a 5-year average, because chemical costs vary from year to year.[121] ORA agrees with SCE's recommendation for this account at a total Test Year forecast of $655K.

FERC Account # 520: Steam expenses.[122]

There are nine (9) adjustments affecting the historical period: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations;[123] Adjustments # 21-28 on Refueling and Mid Cycle Outages.[124] These are credited amounts that reduce the recorded/adjusted total for this account. In addition, there is a future Adjustment # 41 on Scarcity of Labor Resources, which ORA disagrees with its inclusion in the forecast.[125]

ORA agrees with the 3-year average adopted by SCE for this account. However, it recommends that the future Adjustment # 41 at $7K should be removed. Therefore, the total Test Year forecast stands at $4,207K for this account.

FERC Account # 523: Electric expenses.[126]

There are nine adjustments affecting the historical period: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations;[127] Adjustments # 21-28 on Refueling and Mid Cycle Outages.[128] These are credited amounts that reduce the recorded/adjusted total for this account.

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[120] See Footnote # 47.
[121] There is no labor estimate associated with this account.
[122] The FERC defines this account as including the cost of labor, materials used and expenses incurred in production of steam through nuclear processes, and similar expenses for operation of any auxiliary superheat facilities. (FERC website) SCE refers to this account as including "labor and expenses associated with Reactor Plant (primary plant) operations, plant control room functions and system management." (Workpapers SCE-3, Vol. 2, Chapter V, page 26.)
[123] See Footnote # 47.
[124] See footnote # 60.
[125] See under Future Adjustments section on Adjustment # 41.
[126] The FERC defines this account as including the cost of labor, materials used and expenses incurred in operating turbogenerators, steam turbines and their auxiliary apparatus, switch gear and other electric equipment to the points where electricity leaves for conversion for transmission or distribution. (FERC website.) SCE refers to this account as including "labor and expenses associated with Electric Plant (secondary plant) operations, plant control room functions and system management." (Workpapers SCE-3, Vol. 2, Chapter V, page 41.)
[127] See Footnote # 47.
[128] See footnote # 60.

According to SCE's testimony and workpapers the increase in this account was based on the transfer of Shift Technical Advisers (STAs) in mid 1997 and that the addition of personnel required a NPEO class training class.[129] SCE recommends only a labor amount of $5,882K and zero (0) for non-labor for this FERC account.

ORA agrees with SCE's estimate.

FERC Account # 524: Miscellaneous nuclear power expenses.[130]

There are ten (10) adjustments affecting the historical period: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations;[131] Adjustments # 21-28 on Refueling and Mid Cycle Outages; and Adjustment # 31 regarding SCE Voluntary Retirement Offer.[132] These are credited amounts that reduce the recorded/adjusted total for this account.

SCE forecast is based on a 5-year average for labor and non-labor, because the "3, 4, and 5 year averages provide essentially the same results." ORA contends that the Last Recorded Year also closely approximates those averages. In addition, SCE has not explained in its testimony and workpapers the reasons why the Last Recorded Year amount is insufficient to meet current and future requirements for this account.

ORA also found that outage-related costs were included in the historical period.[133] These costs were removed, because SCE has requested that they should be treated separately from this GRC in a Post-Test Year (PTYR) Advice Letters.[134]

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[129] Exhibit No. SCE-3, Vol. 2, Chapter V, page 62.
[130] The FERC defines this account as including the cost of labor, materials used and expenses incurred which are not specifically provided for or are not readily assignable to other nuclear generation operation accounts. (FERCwebsite.) SCE refers to this account as including "labor and expenses associated with work order planning, scheduling, and man-hour estimating performed by the Equipment Control section and the equipment-tagging process performed by the Plant operations section." (Workpapers SCE-3, Vol. 2, Chapter V, page 56.)
[131] See Footnote # 47.
[132] See footnote # 60.
[133] These refer to outage-related costs under Function # 7278 *Outage Planning and Scheduling*: which "includes labor and other expenses incurred in the perfomance of long-range and ongoing outage planning and scheduling including pre-outage preps, screening process, and outage critiques. Prime- and sub-accounts will be used with this function and other applicable functions to track individual refueling outage costs." (Workpapers SCE-3, Vol. 2, Chapter V, page 62.)
[134] Exhibit.: SCE-3, Vol. 2, Chapters IX-XVIII, page 102.

Therefore, ORA recommends the Last Recorded Year amount of $5,486K as the total Test Year estimate. This represents a difference of $498K from SCE's estimate.

Maintenance Functional Group

FERC Account # 524: Miscellaneous nuclear power expenses.[135]

There are ten (10) adjustments affecting the historical period: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations;[136] Adjustments # 21-28 on Refueling and Mid Cycle Outages; and Adjustment # 30 on Year 2000 (Y2K) Replenishment of Nuclear Support Costs & Deferrals. On this latter Adjustment # 30, ORA has previously discussed its exclusion from the historical period.[137] This means that $200K and $96K should be removed from the 1999 and 2000 Non-Labor recorded/adjusted amounts.

ORA also recommends the removal from the historical period the following expenditures:

- "Employee Awards and Recognition Costs" under Function # 7232 include "labor and other expenses incurred for developing and administering employee awards and recognition programs and the costs for the actual awards.[138] ORA objects to the inclusion of these costs, because these are rewards set by SCE's management and shareholders and based on criteria devoid of ratepayers' input;[139] and
- Outage-related costs, because SCE has requested that they should be treated separately from this GRC in a Post-Test Year (PTYR) Advice Letters.[140]

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[135] The FERC defines this account as including the cost of labor, materials used and expenses incurred which are not specifically provided for or are not readily assignable to other nuclear generation operation accounts. (FERC website SCE refers to this account as including "labor, material used and expenses incurred for training, certification, qualifications, and safety classes, as well as employee recognition awards and Industrial Cleaning (Housekeeping) of the plant." (Workpapers SCE-3, Vol. 2, Chapter VI, Part 1 of 4, page 1.)

[136] See Footnote # 47.

[137] See under Historical Adjustments section: Adjustment # 30 Year 2000 (Y2K) Replenishment of Nuclear Support Costs & Deferrals.

[138] Workpapers SCE-3, Vol. 2, Chapter VI, Part 1 of 4, page 10.

[139] See D.93-12-043 and D.89-12-057.

[140] Exhibit No.: SCE-3, Vol. 2, Chapters IX-XVIII, page 102. The outage-related costs specific to this FERC Account are recorded under Function # 7215 *Professional Resources for Outages (PRO) – Refueling Outage Support Program*, which "includes labor expenses for Nuclear employees who are participating in

SCE's methodology for this FERC account estimate is based on a Last Recorded Year (2000) amount for labor, and a 5-year average for Non-Labor.
The justification for the labor estimate is that "SCE implemented programmatic changes to personnel training and certification during the 1998-2000 period…in accordance with Institute of Nuclear Power Operations (INPO) Academy Documents…"[141] Since those changes were reflected in 1998 through 2000, a 3-year average is the most appropriate for the labor estimate. Furthermore, SCE does not support anywhere in its testimony and workpapers the reasons why the Last Recorded Year (2000) amount has to be differentiated from the 1998-2000 period when programmatic changes where instituted.

ORA agrees with the 5-year average adopted for the non-labor amount, with the exceptions noted above on the removal from the historical period of Adjustment # 30, employee awards and recognition costs, and outage-related costs.

Therefore, ORA recommends a total Test Year estimate of $2,604K for this account.[142] This represents a difference of $890K from SCE's total estimate.

FERC Account # 528: Maintenance supervision and engineering.[143]

There are twelve (12) adjustments affecting the historical period: Adjustment # 11 on Remapping of Participant Share of O&M costs; Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations;[144] Adjustments # 21-28 on Refueling and Mid Cycle Outages; Adjustment # 30 on Year 2000 (Y2K) Replenishment of Nuclear Support Costs & Deferrals; and Adjustment # 31 on SCE Voluntary Retirement Offer.

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the supplemental outage job resource sharing during the refueling cycle outages." (Workpapers SCE-3, Vol. 2, Chapter VI, Part 1 of 4, page 10.)
[141] Exhibit No.: SCE-3, Vol. 2, Chapter VI, page 22.
[142] This estimate consists of $1,884K in Labor and $937K in Non-Labor.
[143] The FERC defines this account as including labor and expenses incurred in the general supervision and direction of maintenance of nuclear generation facilities. (FERC website.) SCE refers to this account as including "labor and expenses incurred in the general supervision and direction of maintenance of nuclear generation facilities." (Workpapers SCE-3, Vol. 2, Chapter VI, Part 1 of 4, page 17.)
[144] See Footnote # 47.

ORA has accepted all of the above-mentioned adjustments with the exception of Adjustment # 30, which has to be removed as previously discussed in this testimony.[145] This means that $1,000K should be removed from the 1999 non-labor recorded/adjusted amount.

There is one future Adjustment # 34 as a result of Change Management practices, which reduces the estimate in 2001, 2002 and 2003. ORA accepts this future adjustment.

SCE used the Last Recorded Year (2000) for its labor estimate.[146] This estimate is the lowest labor costs, especially when comparing with costs in 1996, 1997 and 1998. In addition, efficiencies occurred in 1999 and 2000 as a result of "programmatic enhancements including the reallocation of existing resources to new, more productive work groups", which account for the lower levels for those years.[147]

SCE's Non-Labor estimate is based on the Last Recorded Year (2000). This is the lowest Non-Labor amount compared to previous years, with the exception of 1996. "The reduced spending in 1996 is attributable to deferrals or extensions of calibration intervals on M&TE (Measuring and Test Equipment)."[148] SCE maintains that the M&TE costs will remain at 2000 levels. Furthermore, SCE states that costs associated with consultants and supplemental contract personnel involved in various management programs were reduced in 1999 and 2000.[149]

ORA agrees with SCE's methodology and future adjustments used in deriving the Labor estimate. However, ORA recommends a 2-year average (1999-2000) as more accurately reflecting the Non-Labor estimate. This accounts for the changes in M&TE costs and the reductions in consultant and contract personnel costs in 1999 and 2000. Furthermore, ORA removed the impact of Adjustment # 30 and outage-related costs.[150] Following these recalculations the non-labor estimate stands at a negative $73K. This is a difference of $1,312K.

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[145] See under Historical Adjustments section: Adjustment # 30 Year 2000 (Y2K) Replenishment of Nuclear Support Costs & Deferrals.
[146] The 3, 4, 5 year averages are greater than SCE's estimate.
[147] Exhibit No.: SCE-3, Vol. 2, Chapter VI, page 24, lines 1-10.
[148] Exhibit No.: SCE-3, Vol. 2, Chapter VI, page 24, lines 12-13.
[149] These programs related to Human Behavior, Project Management, and the Leadership Observation Program (LOP). Exhibit No.: SCE-3, Vol. 2, Chapter VI, page 24, lines 20-23.
[150] For outage-related costs refer to Footnotes # 133 and # 140.

Therefore, ORA's total estimate for the Test Year is $8401K, which is a difference of $1,312K from SCE's estimate.

FERC Account # 529: Maintenance of structures.[151]

There are twelve (12) adjustments affecting the historical period: Adjustment # 2 on Remapping of Preservation Expenditures; Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations;[152] Adjustments # 21-28 on Refueling and Mid Cycle Outages; Adjustment # 30 on Year 2000 (Y2K) Replenishment of Nuclear Support Costs & Deferrals; and Adjustment # 31 on SCE Voluntary Retirement Offer.

ORA has accepted all of the above-mentioned adjustments with the exception of Adjustment # 30, which should be removed as previously discussed in this testimony.[153] This means that $690K should be removed from the 1999 Non-Labor recorded/adjusted amount.

There is one future Adjustment # 34 as a result of Change Management practices that reduces the estimate. ORA accepts this future adjustment.

SCE mentions that the increase in Labor costs from 1996 to 2000 was due to three (3) major projects:[154]

> (1) the Fire Suppression System material condition improvements, which required piping replacement and coating application, (2) the plant-wide Emergency Battery Replacement Program mandated by the Maintenance Rule performance criteria, and (3) the retrofitting of the HVAC ducting in the Turbine Building from carbon steel to stainless steel due to corrosion. These programs are expected to continue. The replacement of batteries is a repetitive PM activity and the harsh environment of the plant propagates continues maintenance of the other system to maintain their material condition.

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[151] The FERC defines this account as including the cost of labor, materials used and expenses incurred in the maintenance of structures. (FERC website.) SCE also refers to this account as including "labor, materials and expenses incurred in the maintenance of structures. (Workpapers SCE-3, Vol. 2, Chapter VI, Part 1 of 4, page 36.)

[152] See Footnote # 47.

[153] See under Historical Adjustments section: Adjustment # 30 Year 2000 (Y2K) Replenishment of Nuclear Support Costs & Deferrals.

[154] Exhibit No.: SCE-3, Vol. 2, Chapter VI, page 26, lines 5-7 and page 27, lines 1-5.

ORA concurs with SCE's recommendation of using the Last Recorded Year (2000) for Labor at $1,352K.

SCE's Non-Labor estimate is based on a 5-year average due to "the cyclical nature of cost to maintain plant material condition resulting from time-related structure or equipment degradation or failure."[155] In its Exhibit SCE maintains that these cyclical costs will continue in the future.[156] ORA accepts the use of this methodology for the Non-Labor estimate. However, after removing the amount cited above regarding Adjustment # 30 on Year 2000 (Y2K) Replenishment of Nuclear Support Costs & Deferrals, ORA recalculated this 5-year average to $4,457K: a difference of $61K from SCE's estimate.

Therefore ORA's total estimate for the Test Year is $5,809K. This is a difference of $61K from SCE's estimate.

FERC Account # 530: Maintenance of reactor plant equipment.[157]

There are ten (10) adjustments affecting the historical period: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations;[158] Adjustments # 21-28 on Refueling and Mid Cycle Outages; and Adjustment # 34 on Change Management. ORA accepts all of these historical adjustments.

In addition, there are two (2) future Adjustments: Adjustment # 34 on Change Management, and Adjustment # 41 regarding Scarcity of Labor Resources. ORA objects to the inclusion of this latter adjustment as specified in the previous Future Adjustments section.

The labor amount decreased from 1996-2000 due to a change in the way direct maintenance activity was recorded, when these costs were shifted from FERC Accounts # 530 and # 531 to FERC Account # 532.[159]

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[155] Workpapers SCE-3, Vol. 2, Chapter VI, Part 1 of 4, page 39.
[156] Exhibit No.: SCE-3, Vol. 2, Chapter VI, page 27, lines 14 -15.
[157] The FERC defines this account as including the cost of labor, materials used and expenses incurred in the maintenance of reactor plant. (FERC website.) SCE also refers to this account as including "corrective and preventive maintenance activities of the reactor plant equipment." (Workpapers SCE-3, Vol. 2, Chapter VI, Part 1 of 4, page 52.)
[158] See Footnote # 47.
[159] Exhibit No.: SCE-3, Vol. 2, Chapter VI, page 29, lines 4 – 9, and page 30, lines 1 - 4.

SCE uses a 5-year average for labor and non-labor estimates. SCE explains this as follows:[160]

> The aggregate labor expense for FERC accounts 530, 531, and 532 over the five year period was relatively stable. The 5 year non-labor forecast value provides sufficient funding for the cyclical nature of maintenance activities...

There is no justification provided by SCE in its testimony or its workpapers as to why the Last Recorded Year (2000) was not used in the forecast. ORA maintains that the 2000 level incorporates the changes previously mentioned on shifts direct maintenance activity from this account to FERC Account # 532. Furthermore, ORA removes amounts related to Adjustment # 41 regarding Scarcity of Labor Resources as previously explained. This recalculation brings the Test Year Labor amount to be $3,827K. This is a difference of $636K from SCE's estimate.

ORA agrees with the methodology used for the non-labor estimate. However, Adjustment # 41 regarding Scarcity of Labor Resources was not included in this estimate, as well as outage-related costs.[161] The recalculation results in a non-labor amount of $3,126K: a difference of $183K from SCE's estimate.

Thus, ORA's total Test Year amount for this account is $6,954K. This is a difference of $818K from SCE's Test Year total.

FERC Account # 531: Maintenance of electric plant.[162]

There are ten (10) adjustments affecting the historical period: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations;[163] Adjustments # 21-28 on Refueling and Mid Cycle Outages; and Adjustment # 31 on SCE Voluntary Retirement Offer. ORA accepts all of the above-mentioned adjustments.

SCE again mentions that the aggregate labor amount of FERC Accounts # 530, # 531 and # 532 is constant during the 1996-2000 period. However, there is no justification

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[160] Workpapers SCE-3, Vol. 2, Chapter VI, Part 1 of 4, page 55.
[161] For outage-related costs refer to Footnote # 133.
[162] The FERC defines this account as including the cost of labor, materials used and expenses incurred in the maintenance of electric plant. (FERC website) SCE refers to this account as including "corrective and preventive maintenance activities of the electrical plant equipment." (Workpapers SCE-3, Vol. 2, Chapter VI, Part 1 of 4, page 68.)

provided by SCE in its testimony or workpapers as to why the Last Recorded Year (2000) was not used in the forecast. ORA maintains that the 2000 level incorporates the changes previously mentioned on shifts direct maintenance activity from this account to FERC Account # 532. Thus, ORA recommends $3,626K as the labor estimate. This is a difference of $1,233K from SCE's forecast.

ORA concurs with SCE's methodology used in arriving at the non-labor estimate, because the 5-year average accounts for the cyclical nature of maintenance activities specific to this FERC account. However, ORA recalculated the 5-year average after removing outage related amounts.[164] Thus, the non-labor estimates changes to $4,553K: a difference of $15K from SCE's estimate.

This brings the total Test Year estimate to $8,179K, which constitutes a difference of $1,248 from SCE's total forecast for this account.

FERC Account # 532: Maintenance of Miscellaneous nuclear plant.[165]

This account is impacted by thirteen (13) historical adjustments: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations;[166] Adjustment # 14 on Material & Supplies (M&S) Inventory; Adjustment # 15 on M&S Depreciation Expense; Adjustments # 21-28 on Refueling and Mid Cycle Outages; Adjustment # 29 on Year 2000 (Y2K) Nuclear Support Costs; and Adjustment # 30 on Year 2000 (Y2K) Replenishment of Nuclear Support Costs & Deferrals. As previously discussed, ORA agrees with all of these adjustments with the exceptions of Adjustment #30.

ORA accepts SCE's forecast for the Labor and Non-Labor amounts based on a 5-year average. However, ORA recalculated this five-year average after removing Labor and Non-Labor amounts associated with Adjustment # 30. This brings the labor estimate

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[163] See Footnote # 47.
[164] For outage-related costs refer to Footnote # 133.
[165] The FERC defines this account as including the cost of labor, materials used and expenses incurred in maintenance of miscellaneous nuclear generating plant. (FERC website.) SCE refers to this account as including "routine maintenance activities of the miscellaneous plant equipment and support maintenance activities of the reactor and electric plant equipment." (Workpapers SCE-3, Vol. 2, Chapter VI, Part 1 of 4, page 82.)
[166] See Footnote # 47.

to $4,824K, non-labor to $6,261K, and a total estimate of $11,084. The total difference from SCE's estimate is $227K.

Engineering Functional Group

FERC Account # 517: Operation supervision and engineering.[167]

There are seventeen (17) adjustments affecting the historical period: Adjustment #1 on Remapping EPRI costs; Adjustment # 4 on Remapping Boric Acid Project cost; Adjustment # 5 on Remapping of Modification Projects; Adjustment # 11 on Remapping of Participant Share O&M costs; Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations;[168] Adjustments # 21-28 on Refueling and Mid Cycle Outages; Adjustment # 29 on Year 2000 (Y2K) Nuclear Support Costs; Adjustment # 30 on Year 2000 (Y2K) Replenishment of Nuclear Support Costs & Deferrals; Adjustment # 31 on SCE Voluntary Retirement Offer; and Adjustment # 34 regarding Change Management. ORA accepts all of the above-mentioned historical adjustments, with the following exceptions:

- The discrepancies detected from the application of Adjustment #1 on Remapping EPRI costs for this FERC Account and as acknowledged by SCE in DR-ORA-011. (See the Historical Adjustment section in this document.) This impacts the Non-Labor amounts for 1996 and 1997.
- The removal of Adjustment # 30 on Year 2000 (Y2K) Replenishment of Nuclear Support Costs & Deferrals, as previously discussed in the Historical Adjustment section. This impacts the Labor and Non-Labor amount for 2000.[169]

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[167] See FERC Account definition in Footnote # 115. SCE's definition of this account is that it "includes management, supervision and engineering labor and expenses to provide design products and analysis, engineered solutions, technical expertise on regulatory and licensing issues, project and work management, planning and programmatic support, and to manage assurance and control programs to operate SONGS 2&3 plant systems in a safe, reliable manner." (Workpapers SCE-3, Vol. 2, Chapter VII, Part 1 of 3, page 1.)
[168] See Footnote # 47.
[169] Since ORA agrees with SCE's methodology for the Labor forecast in selecting the Last Recorded Year (2000), this discrepancy has no impact. However, ORA highlights this discrepancy for the record.

There are three (3) future adjustments affecting the Test Year estimate and these are: Adjustment # 34 Change Management, Adjustment # 41 on Scarce Labor Resources and Adjustment # 42 on NRC Mandated Program Compliance. As previously discussed, ORA disagrees only with the inclusion of Adjustment # 41 on Scarce Labor Resources and therefore these amounts were removed accordingly.

There were changes in the accounting of engineering work activities and their related costs, which impacted this FERC Account as of January 1, 2000, when "SCE began charging Nuclear Construction costs to FERC Accounts 528, 530 or 532, rather than FERC Account 517."[170]

SCE's methodology for the labor estimate consists of the Last Recorded Year (2000) with future adjustments as identified above. ORA accepts the Last Recorded Year (2000) estimate. It is the lowest compared to the 3, 4, and 5-year averages and SCE maintains that this level of expenditures meets future scope objectives.[171] However, ORA recalculated this estimate after excluding Adjustments # 30 and # 41. Thus, the Test Year estimate for Labor is $12,719: a difference of $172K from SCE's estimate.

For the non-labor estimate SCE used a 5-year average in order to reflect the cyclical nature of engineering activities, including higher annual costs to comply with "new regulatory or nuclear industry standards and work processes."[172] ORA recalculated the five-year non-labor estimate on the basis of the exceptions mentioned previously on the historical adjustments # 1 and # 30, future adjustment # 41.[173] This results in a non-labor estimate of $6,511K: a difference of $305K from SCE's estimate.

Therefore, the total estimate is $19,230K, which represents a difference of $477K from SCE's forecast.

FERC Account # 520: Steam expenses.[174]

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[170] Exhibit No.: SCE-3, Vol. 2, Chapter VII, page 57, lines 5 – 8, and page 58, lines 1-2.
[171] Exhibit No.: SCE-3, Vol. 2, Chapter VII, page 58, lines 13 - 14.
[172] Workpapers SCE-3, Vol. 2, Chapter VII, Part 1 of 3, page 4.
[173] For outage-related costs see Footnote # 140.
[174] See FERC Account definition in Footnote # 122. SCE's definition of this account is that it "includes labor and expenses incurred in the performance of fuel handling activities. (Workpapers SCE-3, Vol. 2, Chapter VII, Part 1 of 3, page 31.)

There are two (2) historical adjustments affecting this account: Adjustment # 6 on Remapping of Steam Generator Program Expenses, and Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations. ORA accepts these adjustments.

SCE's Labor estimate was based on the Last Recorded Year (2000) and it accounts for "work efficiencies implemented through use of automated equipment."[175] A 5-year average was selected for the Non-Labor forecast to reflect cyclical nature of engineering activities. ORA concurs with the methodology used and no further changes are recommended for this account.

FERC Account # 524: Miscellaneous nuclear power expenses.[176]

There are three (3) historical adjustments impacting this account: Adjustment #1 Remapping EPRI costs; Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations; and Adjustment # 34 Change Management.

In addition, two (2) future adjustments incorporated in the estimate are: Adjustment # 34 Change Management and Adjustment # 41 Scarcity of Labor Resources. ORA has already described that the latter adjustment should be excluded from the Test Year estimate.

SCE selected the Last Recorded Year (2000) for the Labor estimate and a 5-year average for Non-Labor, as well as the inclusion of the future adjustments mentioned above. SCE states, "the 3, 4 or 5 year averaging methodologies for labor were not selected because their high forecast values do not reflect implementation of future needs." The selection of the 5-year estimate for Non-Labor reflected the cyclical nature of engineering activities, as was mentioned in previous FERC Accounts # 517 and 520. ORA accepted this

[175] Workpapers SCE-3, Vol. 2, Chapter VII, Part 1 of 3, page 34.

[176] See FERC Account definition in Footnote # 135. SCE's definition of this account is that it "includes miscellaneous engineering labor and expenses such as technical expertise training and nuclear industry committee travel, software licensing and maintenance agreements, and office consumables and tools to operate SONGS 2&3 plant systems in a safe, reliable manner." (Workpapers SCE-3, Vol. 2, Chapter VII, Part 1 of 3, page 45.)

methodology. However, ORA excluded the impact of Adjustment # 41 from the forecast, as well as outage-related costs and employee awards and recognition costs.[177]

Thus, the total Test Year estimate is $5,242K consisting of a Labor amount of $2,449K and Non-Labor at $2,793K. This represents a total change of $685K from SCE's estimate.

FERC ACCOUNT # 528: MAINTENANCE SUPERVISION AND ENGINEERING.[178]

There are two (2) historical adjustments impacting this account: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations and Adjustment #31 SCE Voluntary Retirement Offer. ORA accept these two adjustments.
SCE selected the Last Recorded Year (2000) for the Labor estimate and a 5-year average for Non-Labor. ORA accepts the methodology used as outlined in SCE's testimony and workpapers. However, the non-labor estimate was recalculated after removing outage-related costs from the historical period.[179] This reduced the total estimate by $5K from SCE's forecast for this account.

FERC Account # 530: Maintenance of reactor plant equipment.[180]

There are twelve (12) adjustments affecting the historical period: Adjustment # 6 on Remapping of Steam Generator Program Expenses; Adjustment # 12 on Remapping of

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[177] See Footnotes # 133 and # 140 for outage related costs and Footnotes # 138 and # 139 for employee awards and recognition costs.
[178] See FERC Account definition in Footnote # 143. SCE's definition of this account is that it "includes management, supervision and engineering labor and expenses to provide design products and analysis, engineered solutions, technical expertise on regulatory and licensing issues, project and work management, planning and programmatic support to maintain SONGS 2&3 plant systems in a safe, reliable manner." (Workpapers SCE-3, Vol. 2, Chapter VII, Part 1 of 3, page 64.)
[179] These outage-related costs are recorded under Function # 7442 *RFO Work Support DIV/GRP*, which include "all labor, material, vendor services, and associated expenses related to SONGS Units 2&3 refueling outage work activities performed by SONGS divisional work groups who normally charge their based costs to Common accounting. These costs will be charged to Units 2&3 accounting only." (Workpapers SCE-3, Vol. 2, Chapter VII, Part 1 of 3, page 74.) See also, paragraph in Footnote # 17 for an explanation on this removal.
[180] See FERC Account definition in Footnote # 157. SCE's definition of this account is that it "includes labor and expenses to provide design products and analysis, engineering solutions, technical expertise on regulatory and licensing issues, project and work management, planning and programmatic support, and to manage quality assurance and control programs to maintain SONGS 2&3 reactor plant equipment in a safe, reliable manner." (Workpapers SCE-3, Vol. 2, Chapter VII, Part 1 of 3, page 79.)

Division Overheads & Supply Expense Allocations;[181] Adjustments # 21 - 28 on Refueling and Mid Cycle Outages; Adjustment # 29 on Year 2000 (Y2K) Nuclear Support Costs; and Adjustment # 30 on Year 2000 (Y2K) Replenishment of Nuclear Support Costs & Deferrals. ORA accepts all the above-mentioned historical adjustments, with the exception of Adjustment # 30 on Year 2000 (Y2K) Replenishment of Nuclear Support Costs.

In addition, there was one (1) future adjustment, Adjustment # 34 on Change Management, which impacted years 2001, 2002 and 2003. ORA accepts this adjustment.

SCE selected the Last Recorded Year (2000) for the Labor estimate. The increase of the Last Recorded Year (2000) amount from 1996-1998 recorded costs was partially due to work load increases for the steam generator, Flow Accelerated Corrosion and In Service Inspections enhancements but also reflect the aggregate cyclical work for FERC Accounts 517, 528, 530, 532.[182]

A 5-year average was adopted for the Non-Labor estimate due to the cyclical nature of engineering activities.

ORA accepts SCE's labor and non-labor methodology. However, amounts related to Adjustment # 30 have been removed. Thus, the total estimate for this account is $6,348, which represents a difference of $54K from SCE's estimate.

FERC Account # 531: Maintenance of electric plant.[183]

There are three (3) adjustments affecting the historical period: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations; Adjustment # 29 on Year 2000 (Y2K) Nuclear Support Costs; and Adjustment # 30 on Year 2000 (Y2K) Replenishment of Nuclear Support Costs and Deferrals. ORA accepts the inclusion of Adjustments # 12 and 29. However, as previously stated in other FERC Accounts, ORA objects to the inclusion of Adjustment # 30.

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[181] See Footnote # 47.
[182] Workpapers SCE-3, Vol. 2, Chapter VII, Part 1 of 3, page 82.
[183] See FERC Account definition in Footnote # 162. SCE's definition of this account is that it "includes labor and expenses to provide design products and analysis, engineering solutions, technical expertise on regulatory and licensing issues, project and work management, planning and programmatic support, and to

There is only one (1) future adjustment impacting this account and it refers to Adjustment # 34 resulting from Change Management practices. ORA accepts this adjustment.

In this account SCE recommends a 5-year average for the Labor estimate, because it reflects the "cyclical nature of evaluating and analyzing plant problems."[184] SCE cites work activities emergent as a result of the rotor crack problem in 1996 or the analysis required in addressing the electrical fire at SONGS Unit # 3 in 2001.[185] ORA agrees with this Labor estimate. However, ORA removed Adjustment # 30 amounts and recalculated the estimate as $2,814K. This is only a $2K difference from SCE's estimate.

SCE's Non-Labor estimate is based on a 5-year average, because it "reflects the support required for plant turbine related cyclical Engineering work activities driven by NRC requirements or nuclear industry standards."[186] However, the Last Recorded Year (2000) shows a negative amount, which is explained as follows:[187]

> Zero non-labor funding eliminates Engineering' ability to retain nuclear industry expert consultants on important issues such as plant systems and components operability, equipment obsolescence, and plant reliability continuity e.g. accident or probability risk assessments.

ORA accepts SCE's non-labor methodology. However, the impact of Adjustment # 30 was removed. This leaves a non-labor amount at $536K: a difference of $38K from SCE's estimate.

The Test Year estimate for this account is $3,350K, instead of SCE's $3,390K. This is a difference of $40K.

FERC Account # 532: Maintenance of Miscellaneous nuclear plant.[188]

There is one (1) historical and future adjustment affecting this account, Adjustment # 34 Change Management. ORA accepts this adjustment as recorded.

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manage quality assurance and control programs to maintain SONGS 2&3 electric plant equipment in a safe, reliable manner." (Workpapers SCE-3, Vol. 2, Chapter VII, Part 1 of 3, page 96.)

[184] Exhibit No.: SCE-3, Vol. 2, Chapter VII, page 71, lines 16 - 17.

[185] Exhibit No.: SCE-3, Vol. 2, Chapter VII, page 71.

[186] Workpapers SCE-3, Vol. 2, Chapter VII, Part 1 of 3, page 99.

[187] Workpapers SCE-3, Vol. 2, Chapter VII, Part 1 of 3, page 99.

[188] See FERC Account definition in Footnote # 165. SCE's definition of this account is that it "includes

In addition, there is future adjustment # 41 on Scarcity of Labor Resources, which ORA has previously excluded from developing the estimate.

There were changes in the accounting of engineering work activities and their related costs, which impacted this FERC Account as of January 1, 2000, when "SCE began charging Nuclear Construction costs to FERC Accounts 528, 530 or 532, rather than FERC Account 517."[189] SCE's testimony maintains that no costs were recorded in this account from 1996 to 1999 and that:[190]

> In 2000, SCE recorded in this FERC Account the labor and non-labor costs recorded by Nuclear Construction for data gathering and plant system analysis…However, SCE did not adjust associated 1996-2000 historical recorded costs.

SCE's Labor estimates is based on Last Recorded Year (2000). ORA has no objection to this estimate. However, ORA included amounts related to Adjustment # 34, and excluded those of Adjustment # 41. The labor estimate is $1,049K, which represents a difference of $695K from SCE's forecast.

ORA agrees with SCE's use of a 5-year average for the non-labor estimate. ORA excluded amounts related Adjustment # 41. Thus, the non-labor estimate is $335K: a difference of $239K from SCE's estimate. The total Test Year estimate is $1,384K: a difference of $934K from SCE's forecast.

Site Projects Functional Group[191]

FERC Account # 517: Operation supervision and engineering.[192]

There are twelve (12) historical adjustments affecting this account: Adjustment #1 on Remapping EPRI costs; Adjustment # 3 on Remapping of Control Room Remodel; Adjustment # 4 on Remapping of Modification Projects; Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations; Adjustment # 21, 22, 25-28 on

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[189] Exhibit No.: SCE-3, Vol. 2, Chapter VII, page 57, lines 5-8, and page 58, lines 1-2.
[190] Exhibit No.: SCE-3, Vol. 2, Chapter VII, page 72, lines 7-9, and page 73, lines 4-5.
[191] See Appendices A and B for the type of projects under Site Functional Group.
[192] See FERC Account definition in Footnote # 115. SCE's definition of this account is that it "includes labor and expenses to manage, implement, and procure material for projects as a result of design modifications to the plant which ensure compliance and safety." (Workpapers SCE-3, Vol. 2, Chapter VIII & IX, page 1.)

Refueling Outages; and Adjustment # 30 on Year 2000 (Y2K) Replenishment of Nuclear Support Costs and Deferrals. For the purpose of this forecast, ORA accepts all of the above-mentioned historical adjustments with the exception of the amounts related to Adjustment # 30 have been removed as previously mentioned.

In addition, there is one future adjustment # 39 on Site Projects, which ORA has excluded in its calculations of the estimate. (See under Future Adjustments for an explanation on this removal.)

In DR-ORA-045, SCE provides a table with a breakdown of the historical/recorded costs for Site Projects. ORA observed that under the Site Projects FERC Account # 517 for 1998 a line item referred to as "Year 2000 (Y2K) Deferred Projects" skewed the total non-labor amount exorbitantly. This line item constituted an increase of 153% from the total non-labor amount in 1997 for this account. Since Y2K was an extraordinary one-time event, ORA recommends the removal of this amount from the historical/recorded Non-Labor amounts to clearly reflect constant expenditures in this account.

SCE used the Last Recorded Year (2000) with adjustments for labor and non-labor estimates. However, these costs vary from year to year. ORA believes that a 5-year average is more appropriate for capturing these annual variations. In addition, ORA excluded Adjustments # 30 and # 39.

As a result, ORA's labor estimate is $333K, which is greater than SCE's estimate by $323K.[193] ORA's non-labor estimate is $4,510K: a difference of $1,870K from SCE's forecast. ORA's total Test Year estimate is $4,843K, which is a difference of $1,547K from SCE's estimate.

FERC Account # 532: Maintenance of Miscellaneous nuclear plant.[194]

There are four (4) historical adjustments affecting this account: Adjustment # 2 on Remapping of Preservation Expenditures;[195] Adjustment # 12 on Remapping of Division

[193] This increase may be used for this or any other account where SCE warrants a need.
[194] See FERC Account definition in Footnote # 165. SCE's definition of this account is that it "includes labor and expenses to manage, implement, and procure material for projects required to maintain reliability and safety." (Workpapers SCE-3, Vol. 2, Chapter VIII & IX, page 17.)
[195] For an explanation of plant preservation, see Appendix B.

Overheads & Supply Expense Allocations; and Adjustments # 27 and # 28 on Refueling Outages. ORA accepts these adjustments.

In addition, this account is impacted by future Adjustment # 39 on Site Projects. ORA removed these amounts, as previously discussed.

SCE used the Last Recorded Year (2000) with adjustments for both labor and non-labor forecasts. Since costs and projects under this account vary from year to year, ORA believes that a 5-year average is more appropriate for capturing these annual variations. In addition, ORA removed the impact of Adjustment # 39.

Thus, the Labor estimate is $7K, a Non-Labor estimate of $2,667K, and a total Test Year estimate of $2,674K: a difference of $293K, $3,103K, and $3,396K respectively.

Radchemical Control Functional Group

FERC Account # 517: Operation supervision and engineering.[196]

This account is impacted by one historical adjustment - Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations, and one future adjustment - Adjustment # 34 on Change Management. ORA accepts these adjustments.

SCE maintains that costs associated with this FERC Account have been "consistent over the 1996-2000 period."[197] Thus, SCE selected a 5-year average with Adjustment # 34 for the Labor estimate, and zero funding for Non-Labor costs.[198]

ORA accepts the forecast for this account as set forth and recommends no changes.

FERC Account # 520: Steam expenses.[199]

There are twelve (12) historical adjustments mentioned and these are: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations; Adjustments #

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[196] See FERC Account definition in Footnote # 115. SCE's definition of this account is that it "includes labor and expenses of Chemistry and Health Physics management and supervision." (Workpapers SCE-3, Vol. 2, Chapter VIII & IX, page 31.)

[197] Exhibit No.: SCE-3, Vol. 2, Ch. IX-XVIII, page 10, lines 3 – 4.

[198] Workpapers SCE-3, Vol.2, Ch. VIII & IX, pages 33-34.

[199] See FERC Account definition in Footnote # 122. SCE refers to this account as including "labor and expenses incurred for operating and maintaining, and controlling all chemical additives necessary for proper plant system operations. Also includes costs for HP Operations including personnel protection (ALARA), disposal of low level radioactive wastes (LLRW), and Instrumentation and Dosimetry activities." (Workpapers SCE-3, Vol. 2, Chapter VIII & IX, page 45.)

21-27 on Refueling and Mid Cycle Outages; Adjustment # 29 on Year 2000 (Y2K) Nuclear Support Costs; Adjustment # 30 on Year 2000 (Y2K) Replenishment of Nuclear Support Costs & Deferrals; Adjustment # 31 on SCE Voluntary Retirement Offer; and Adjustment # 34 on Change Management. ORA accepts all of the above-mentioned historical adjustments, with the exception of Adjustment # 30 on Year 2000 (Y2K) Replenishment of Nuclear Support Costs & Deferrals.

There are two (2) future adjustments: Adjustment # 34 on Change Management and Adjustment # 41 on Scarcity of Labor Resources. As previously mentioned, the latter adjustment will not be included as part of ORA's forecast.

SCE maintains that the Labor and Non-Labor historical amounts under this FERC Account have been relatively constant over the past 5 years and will remain constant in the future.[200] Thus, SCE's estimate was based on a 5-year average in addition to future Adjustments # 34 and 41. ORA agrees with the methodology used. However, Adjustments # 30 and 41 have not been considered in ORA's forecast and outage-related amounts were removed from historical period.[201]

Therefore, on the basis of those recalculations, ORA recommends a Labor estimate of $6,601K and a Non-Labor estimate of $3,672K. This brings the total Test Year forecast to $10,273K, which is a difference of $578K from SCE's forecast.

FERC Account # 523: Electric expenses.[202]

Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations is the only historical adjustment impacting this account. ORA accepts this adjustment.

Regarding historical Labor amounts, SCE maintains that they have remained constant from year to year and it selected the Last Recorded Year (2000). For the Non-Labor estimate the Last Recorded Year (2000) is used on the basis that in 1999 there was

[200] Workpapers SCE-3, Vol.2, Ch. VIII & IX, pages 48.
[201] See Footnote # 133 for outage-related costs.
[202] See FERC Account definition in Footnote # 126. SCE refers to this account as including "costs related to the purchase and control of chemicals, diesel fuels and lubricating oils." (Workpapers SCE-3, Vol. 2, Chapter VIII & IX, page 63.)

an accounting change shifting amounts from FERC Account # 520 to this FERC Account # 523 and this is more "representative of current work processes."[203]

Since labor costs have been constant in the 1996-2000 period, ORA recommends a 5-year average. For the non-labor estimate, there is no reference in FERC Account # 520 about any accounting changes.[204] In fact FERC Account # 520, as stated above, indicates that non-labor historical amounts have been relatively constant and SCE uses a 5-year average as part of its estimate. Therefore, ORA recommends a 5-year average as the Non-Labor estimate.

ORA's forecast is $36K for labor, $93K for non-labor, and a total of $129K. There is a difference of $64K between ORA's and SCE's estimates.

FERC Account # 524: Miscellaneous nuclear power expenses.[205]

There are three (3) historical adjustments impacting this account: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations; Adjustment # 31 on SCE Voluntary Offer and Adjustment # 34 on Change Management. Furthermore, the latter also has an impact as a future adjustment. ORA accepts all of the above-mentioned adjustments.

SCE used a 5-year average for its labor and non-labor estimates with adjustments. The justification provided is that, over the period under review, costs in this FERC Account have been viewed as constant. ORA agrees with the methodology used for this account. However, ORA recalculated the 5-year average for the non-labor estimate after excluding historical amounts associated with outage-related costs, employees awards and recognition costs.[206]

Thus, the non-labor estimate changes to $887K and the total Test Year estimate to $2,151K, which is a difference of $111K from SCE's total.

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[203] Workpapers SCE-3, Vol. 2, Chapter VIII & IX, page 66.
[204] Exhibit No.: SCE 3, Vol. 2, Chapters IX – XVIII, pages 11-13; and Workpapers SCE-3, Vol. 2, Chapter VIII & IX, page 48.
[205] See FERC Account definition in Footnote # 130. SCE refers to this account as including "labor and expenses related to the training/certification and costs of consumables, office supplies and non-capital furniture and equipment." (Workpapers SCE-3, Vol. 2, Chapter VIII & IX, page 63.)
[206] See Footnote # 140 for outage-related costs, and Footnotes # 138 and 139 for employee award and recognition costs.

Regulatory Affairs Functional Group

FERC Account # 517: Operation supervision and engineering.[207]

There are three (3) historical adjustments impacting this account: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations; Adjustment # 31 on SCE Voluntary Retirement Offer and Adjustment # 34 on Change Management. Furthermore, the latter also has an impact as a future adjustment. ORA accepts all of the above-mentioned adjustments.

In order to meet staffing needs to meet NRC regulatory requirement, SCE adopted the Last Recorded Year (2000) with adjustments in determining the Labor estimate.[208] Whereas a 5-year average for its Non-Labor estimate, because this "allows funding for the uncertain cost of litigation activities which are dependent on the outcome of pending litigation."[209]

ORA agrees with the methodology adopted and no changes are recommended.

FERC Account # 524: Miscellaneous nuclear power expenses.[210]

There are eleven (11) historical adjustments mentioned and these are: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations; Adjustment # 13 on Remapping of A&G Costs to Nuclear Functional Groups; Adjustments # 21-27 on Refueling and Mid Cycle Outages; Adjustment # 31 on SCE Voluntary Retirement Offer; and Adjustment # 34 on Change Management. ORA accepts all of the above-mentioned adjustments.

There are two (2) future adjustments: Adjustment # 34 on Change Management and Adjustment # 41 on Scarcity of Labor Resources. As previously mentioned, this latter adjustment will not be included as part of ORA's forecast.

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[207] See FERC Account definition in Footnote # 115. SCE's definition of this account is that it "includes labor and expenses of Nuclear Regulatory Affairs, which provides central management of all NRC activities related to SONGS." (Workpapers SCE-3, Vol. 2, Chapter X, page 1.)
[208] Workpapers SCE-3, Vol. 2, Chapter X, page 4.
[209] Workpapers SCE-3, Vol. 2, Chapter X, page 4.
[210] See FERC Account definition in Footnote # 130. SCE refers to this account as including "labor and expenses associated with emergency planning, SONGS fire department, fire protection engineering, occupational safety and health and medical department." (Workpapers SCE-3, Vol. 2, Chapter X, page 18.)

SCE used a 5-year average for its Labor and Non-Labor estimates with adjustments, because this methodology takes "into account variations in cost due to fluctuations associated with the need for hazard barrier evaluations."[211]

ORA agrees with the methodology used. However, Adjustment # 41 was not included as part of the estimate and historical amounts associated with outage costs, employees awards and recognition costs were removed.[212]

Thus, ORA's forecast consists of a labor amount of $3,112K, non-labor of $1,535K and a total Test Year estimate of $4,647K. This represents a difference of $117K from SCE's total forecast.

Security Functional Group

FERC Account # 517: Operation supervision and engineering.[213]

There are two (2) historical adjustments impacting this account: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations; and Adjustment # 31 on SCE Voluntary Retirement Offer. In addition, there is one (1) future Adjustment # 34 on Change Management. ORA accepts these adjustments as recorded.

In FERC Account # 517 SCE uses a 5-year average and in 2001 there was a reduction of $61K as a result of staff reductions derived from Change Management Program in Adjustment # 34.[214]

Regarding *Security Adjusted Costs In FERC Account # 517*, SCE mentions that "in 1998, non-labor increased due to the use of a contractor to perform an assessment of security performance."[215] This costs was approximately $196K (2000$, 100% level) and SCE expects this type of assessment to occur during the forecast period.[216] ORA agrees to leave this amount in its calculation of the historical averages.

ORA concurs with SCE's forecast for this account.

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[211] Workpapers SCE-3, Vol. 2, Chapter X, page 21.
[212] See Footnote # 140 for outage-related costs, and Footnotes # 138 and 139 for employee award and recognition costs.
[213] See FERC Account definition in Footnote # 115. SCE's definition of this account is that it "includes labor and expenses for management and supervision, work scheduling, and other administrative activities in support of SONGS security operations." (Workpapers SCE-3, Vol. 2, Chapter XI, page 1.)
[214] DR-ORA-085, question #7.
[215] Exhibit No.: SCE-3, Vol. 2, Chapter XI, page 33, lines 8-9.

FERC Account # 524: Miscellaneous nuclear power expenses.[217]

There are ten (10) historical adjustments mentioned and these are: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations; Adjustments # 21-27 on Refueling and Mid Cycle Outages; and Adjustment # 31 on SCE Voluntary Retirement Offer. ORA accepts all of the above-mentioned historical adjustments.

There are also three (3) future adjustments: Adjustment # 34 on Change Management; Adjustment # 41 on Scarcity of Labor; and Adjustment # 45 on New Security Requirements. ORA has an objection to the inclusion of the last two adjustments, as explained in the Historical & Future Adjustments section and the Future Adjustments section.

In FERC Account # 524, SCE uses a 4-year average for its labor estimate and future adjustments #34, #41and #45. The selection of the 4-year average is justified as follows:[218]

> Because it reflects an increase in the number of security posts in 1997. This increase was associated with the installation of Active Vehicle Barriers to meet regulatory requirements, the opening of the South Security Processing Facility and overall improvements in security performance.

Similarly, a 3-year average was selected for the Non-Labor estimate due to regulatory requirement in 1998, which involved the hiring of additional security guards.[219]

ORA accepts SCE's methodology used for the labor and non-labor estimates. However, ORA recommends the exclusion of Adjustment #41 and #45, as well as outage-related costs, employees awards and recognition costs.[220] Therefore, ORA's labor

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[216] DR-ORA-085, question # 6.
[217] See FERC Account definition in Footnote # 130. SCE refers to this account as including "labor and expenses associated with the SCE and contractor security force, including security watch functions, access control functions and security system monitoring." (Workpapers SCE-3, Vol. 2, Chapter X, page 15.)
[218] Workpapers SCE-3, Vol. 2, Chapter XI, page 18.
[219] Workpapers SCE-3, Vol. 2, Chapter XI, page 18.
[220] See Footnotes # 140 and # 179 for outage-related costs, and Footnotes # 138 and 139 for employee award and recognition costs.

estimate is $7,259K and a negative non-labor estimate of $248K, which total to a Test Year estimate of $7,011.[221] This represents a difference of $5,777K from SCE's estimate.

Training Functional Group

FERC Account # 524: Miscellaneous nuclear power expenses.[222]

There are three (3) historical adjustments mentioned and these are: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations; Adjustments # 20 on SONGS Training Program – State Refund Credits; and Adjustment # 31 on SCE Voluntary Retirement Offer. ORA accepts all of the above-mentioned historical adjustments, except Adjustment # 20 as described in the Historical Adjustments section.

There are also two (2) future adjustments: Adjustment # 34 on Change Management and Adjustment # 41 on Scarcity of Labor. ORA objects the inclusion of the latter adjustment, as explained in the Future Adjustments section.

SCE selected a 3-year average for its labor and non-labor estimates with future adjustments. The 3-year average was selected, because in 1998 there were substantial programmatic changes in the Operations, Maintenance and Engineering qualification training and certification programs. Furthermore, SCE maintains that this 3-year average is adequate to meet future needs.[223]

ORA accepts SCE's methodology in determining labor and non-labor estimates. However, ORA excluded Adjustments # 20 and # 41 from the estimates, as well as outage-related costs, employee awards and recognition costs.[224] This changes the labor estimate to $4,210, non-labor to $1,379K, and total Test Year estimate of $5,589K. This represents a difference from SCE's forecast of $2,036K.

Nuclear Support Functional Group

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[221] This negative Non-Labor amount is a result of SCE's 3-year average and the impact of efficiencies identified in Adjustment # 34 Change Management.

[222] See FERC Account definition in Footnote # 130. SCE refers to this account as including "labor and expenses to conduct training programs for SONGS reflective of the regulatory and industry standards, as well as SONGS plant design and other features and challenges that are unique to SONGS." (Workpapers SCE-3, Vol. 2, Chapter XII, page 1.)

[223] Exhibit.: SCE-3, Vol. 2, Chapters IX-XVIII, page 51, lines 2-4.

FERC Account # 517: Operation supervision and engineering.[225]

There are seven (7) historical adjustments impacting this account: Adjustment # 9 on Nuclear Human Resources Remapping to Corporate Human Resources; Adjustment #12 on Remapping of Division Overheads & Supply Expense Allocations; Adjustment # 17 on Transfer of Information Technology Support Costs to Nuclear; Adjustment # 30 on Year 2000 (Y2K) Replenishment of Nuclear Support Costs & Deferrals; Adjustment # 31 on SCE Voluntary Retirement Offer; Adjustment # 32 Accrued Severance Costs; and Adjustment # 33 on INPO Annual Fees. ORA accepts of all of the above-mentioned historical adjustments with the exception of Adjustment # 30.

In addition, there are four (4) future adjustments: Adjustment # 34 on Change Management, Adjustment # 36 on NRC License Fees; Adjustment # 37 on Emergency Plan Program Fees and Adjustment # 41 on Scarcity of Labor Resources. ORA agrees with all of these future adjustments, with the exception of Adjustment # 41.

The Last Recorded Year (2000) was selected by SCE for the labor, because it captures "small cost reductions first seen in 1998 that have now stabilized."[226] For the non-labor estimates SCE selected also the Last Recorded Year (2000) to reflect costs associated with Generation Business Planning and Strategy, which were allocated to this account in 1999.[227] In addition, future adjustments were added to the Last Recorded Year (2000) amounts to arrive at SCE's final estimate.

ORA agrees with SCE's methodology. However, ORA excluded Adjustment # 41 from its analysis. Thus, the estimates have been changed to: $786K for labor, $15,267K for non-labor, and a total Test Year estimate at $16,053K. This represents a difference of $120K from SCE's total forecast.

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[224] See Footnote # 140 for outage-related costs, and Footnotes # 138 and 139 for employee award and recognition costs.
[225] See FERC Account definition in Footnote # 115. SCE's definition of this account is that it "includes labor and expenses for offsite emergency plan programs, nuclear communications, and fees paid to nuclear agencies." (Workpapers SCE-3, Vol. 2, Chapter XIII, page 1.)
[226] Exhibit.: SCE-3, Vol. 2, Chapters IX-XVIII, page 70, lines 10 - 12.
[227] Exhibit.: SCE-3, Vol. 2, Chapters IX-XVIII, page 70, lines 12 - 14.

FERC Account # 520: Steam expenses.[228]

There are three (3) historical adjustments affecting this account: Adjustment #12 on Remapping of Division Overheads & Supply Expense Allocations, and Adjustment # 21 and #22 on Refueling Outages. ORA accepts all of these historical adjustments.

SCE used the Last Recorded Year (2000) for the Labor estimate on the basis that "environmental requirements have gradually increased over the last five years resulting in gradual increases in labor costs. SCE anticipates current staffing is sufficient to support future requirements."[229]

Whereas for Non-Labor, SCE selected a 3-year average, because:[230]

> It reflects significant cost increases for disposal of mixed waste that occurred in 1998 and will continue in the future. SCE anticipates that the availability of disposal facilities will vary in the future for different types of mixed waste, creating backlogs that will need to be cleared as facilities become available, just as occurred in 1998-1999.

ORA agrees with SCE's methodology and the labor estimate for this account. However, amounts associated with outage-related costs have been removed from the historical period.[231] This brings the non-labor estimate to $1,243K, and a total estimate of $1,843. This represents a difference of $7K from SCE's total estimate.

FERC Account # 524: Miscellaneous nuclear power expenses.[232]

There are nineteen (19) historical adjustments affecting this account:[233] Adjustment # 3 on Remapping of Control Room Remodel; Adjustment 37 on Remapping

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[228] See FERC Account definition in Footnote # 122. SCE refers to this account as including "labor and expenses for environmental programs and waste disposal." (Workpapers SCE-3, Vol. 2, Chapter XIII, Part 1 of 2, page 20.)
[229] Workpapers SCE-3, Vol. 2, Chapter XIII, Part 1 of 2, page 23.
[230] Exhibit.: SCE-3, Vol. 2, Chapters IX-XVIII, page 72, lines 19 - 24.
[231] See Footnote # 179 for outage-related costs.
[232] See FERC Account definition in Footnote # 135. SCE's definition of this account is that it "includes labor and expenses for secretarial and clerical support, business planning, financial services, site access authorization, facilities management, and procurement engineering support." (Workpapers SCE-3, Vol. 2, Chapter XIII, Part 1 of 2, page 36.)
[233] In addition, SCE's workpapers indicate that there are three Company Wide Adjustments:

- To remove spent fuel expenses
- To remove expenses that are shareholder funded; and

of Information Technology – Telecommunication; Adjustment #10 Remapping of Participant Share of P&B and Payroll Taxes; Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations; Adjustment #13 on Remapping of A&G Costs to Nuclear Functional Groups; Adjustment # 16 on Marine Mitigation Accrual; Adjustments # 21-28 on Refueling and Mid Cycle Outages; Adjustment # 29 on Year 2000 (Y2K) Nuclear Support Costs; Adjustment # 30 on Year 2000 (Y2K) Replenishment of Nuclear Support Costs & Deferrals Adjustment # 31 on SCE Voluntary Retirement Offer; Adjustment # 34 on Change Management; and Adjustment #35 on Allocation of Common O&M. ORA accepts all of the above-mentioned historical adjustments with the exception of Adjustment # 30, as previously indicated under the Historical & Future Adjustment section.

There are also three (3) future adjustments: Adjustment # 34 on Change Management, Adjustment # 38 on Funding for Nuclear Rate Regulation, and Adjustment # 41 on Scarcity Labor Resources. ORA, objects to the inclusion of the latter adjustment. In its testimony SCE states:[234]

> Between 1996 and 1997 there was a significant decrease in labor costs, almost completely offset by an increase in non-labor costs. This was mainly caused by the 1996 reversal of estimated severance costs as a credit to non-labor, then recording of the actual cost as a debit to labor. Consequently, to exclude the effects of this transaction, and because the work scope and costs have remained relatively constant, SCE selected the Budget Based methodology to combine the use of the Four-Year Average methodology for both labor and non-labor costs with future adjustments.

ORA omitted the impact of severance costs for 1996 and 1997, because these two years are not reflective of costs associated with this account. ORA, therefore, recommends a 3-year average (1998-2000) for the labor and non-labor estimate. In addition, ORA excluded Adjustments # 30 and # 41 from these estimates, as well as amounts associated with outage-related costs, employee awards and recognition costs.[235]

- The reversal of non-utility affiliate credit for expenses recorded in one or more of the functions included in this activity and charged to non-utility affiliates.

[234] Exhibit.: SCE-3, Vol. 2, Chapters IX-XVIII, page 74, lines 7 -13.

[235] For outage-related costs refer to Footnotes # 133, # 140 and # 179; and employee awards and recognition costs in Footnotes # 138 and # 139.

As a result, the labor estimate is $10,564K, non-labor at $7,786K and a total Test Year estimate at $18,350K. This is a difference of $869K from SCE's total estimate.

FERC Account # 525: Rents.[236]

There is only one historical adjustments - Adjustment # 31 on Remapping of A&G Costs to Nuclear Functional Groups. ORA accepts this adjustment.

The Last Recorded Year (2000) amount was selected by SCE to be reflective of future costs for this account, because "it represents the costs of the current facility lease and easement agreements which increased in 2000."[237]

ORA accepts SCE's forecast and no changes are recommended for this account.

FERC Account # 528: Maintenance supervision and engineering.[238]

There are six (6) historical adjustments affecting this account: Adjustment #12 on Remapping of Division Overheads & Supply Expense Allocations; Adjustment # M&S Inventory Adjustment; Adjustments # 2 5 - 28 on Refueling Outages. ORA accepts all of these historical adjustments.

In addition, there are two (2) future adjustments: Adjustment # 34 on Change Management and Adjustment # 40 regarding the Master Insurance Program. ORA accepts both adjustments.

SCE states that it used a 3-year average for determining the Labor and Non-Labor estimates, because "it excludes 1996 and 1997 which reflected one time adjustments associated with late arriving invoices. The three most current years contain costs that SCE expects will continue in the future."[239]

SCE mentions that it records in this account:[240]

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[236] The FERC defines this account as including all rents of property of others used, occupied or operated in connection with nuclear generation. (FERC website.) SCE's definition of this account is that it "includes costs for site land leases and easements." (Workpapers SCE-3, Vol. 2, Chapter XIII, Part 1 of 2, page 63.)
[237] Exhibit.: SCE-3, Vol. 2, Chapters IX-XVIII, page 76, lines 3 - 4.
[238] See FERC Account definition in Footnote # 143. SCE's definition of this account is that it "capturers costs for SCE Corporate adjustments that relate to functions performed at SONGS 2&3." (Workpapers SCE-3, Vol. 2, Chapter XIII, Part 1 of 2, page 74.)
[239] Workpapers SCE-3, Vol. 2, Chapter XIII, Part 1 of 2, page 77.
[240] Exhibit No.: SCE-3, Vol. 2, Chapter XIII, page 77, lines 2-5.

> The costs for Miscellaneous SCE Corporate adjustments that relate to functions performed at SONGS. The Corporate adjustments (debits or credits) may include company and/or employee settlement costs due to bankruptcies, fines and other litigation.

However, SCE's testimony and workpapers do not provide an adequate and detailed explanation as to what these costs entail. ORA, therefore, recommends the inclusion of costs associated to the Master Insurance Program as the total Test Year estimate of $1,710K this account, and to exclude $585K due to insufficient information.[241]

FERC Account # 529: Maintenance of structures.[242]

There are two (2) historical adjustments affecting this account: Adjustment # 3 on Remapping of Control Room Remodel and Adjustment #12 on Remapping of Division Overheads & Supply Expense Allocations.

SCE selected a 5-year average for determining the Labor and Non-Labor estimates. It, furthermore, describes the historical impact and future needs as follows:[243]

> Historical variances exist in this FERC Account due to a change in 1997 when the Facilities Maintenance section adopted a conservative repair philosophy that resulted in minor cost savings. Since 2000, facilities-related reliability issues have forced SCE to renew the preventive maintenance philosophy, which will result in a return to maintenance cost of the past.

SCE, however, has not identified in its testimony and workpapers these "facilities-related reliability issues", especially since this account refers to the maintenance costs of non-plant, buildings and grounds. ORA, therefore, recommends the use of a 4-year average (1997-2000) for the Labor and Non-Labor estimates.

Since SCE has requested to treat outage-related costs separately from this GRC, ORA removed these costs and recalculated the 4-year average to a total Test Year estimate of $3,659K: a difference of $212K from SCE's forecast.[244]

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[241] For further details about Adjustment # 40 Master Insurance Program see under the Future Adjustments section.
[242] See FERC Account definition in Footnote # 151. SCE also refers to this account as including "labor, materials and expenses incurred in the maintenance of structures. (Workpapers SCE-3, Vol. 2, Chapter VI, Part 1 of 4, page 36.)
[243] Exhibit.: SCE-3, Vol. 2, Chapters IX-XVIII, page 79, lines 5 - 9.

FERC Account # 532: Maintenance of Miscellaneous nuclear plant.[245]

There are three (3) historical adjustments affecting this account: Adjustment #12 on Remapping of Division Overheads & Supply Expense Allocations; Adjustment # 31 SCE Voluntary Retirement Offer, and Adjustment # 35 on Allocation of Common O&M. ORA accepts all of these adjustments.

SCE selected the Last Recorded Year (2000) amount for its Labor estimate, because it meets future work scope.[246] The Non-Labor estimate was based on a 3-year average (1998-2000) due to a 1998 increase as a result of a change in corporate accounting related to Procurement Material & Management Division (PAMM) activities.[247] SCE is not specific about the nature of this accounting change in its testimony or workpapers. Therefore, ORA recommends a 5-year average for the Non-Labor estimate, since work scope has remained relatively constant over that period.[248]

Furthermore, ORA removed associated with outage-related costs from the historical period.[249]

According to ORA's recalculation the Total Test Year estimate for this FERC Account becomes $4,052K: a difference of $507K from SCE's estimate.

Corporate Support Functional Group

FERC Account # 518: Nuclear fuel expense.[250]

There is no SCE request associated with this FERC Account.

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[244] For outage-related costs see Workpapers SCE-3, Vol. 2, Chapter XIII, page 95, under Function # 7442; and for an explanation on the removal see Exhibit No.: SCE-3, Vol. 2, Chapters IX-XVIII, page 102, lines 6 - 9.

[245] See FERC Account definition in Footnote # 165. SCE refers to this account as including "labor and expenses for the material and supplies warehousing, and all procurement services for the site." (Workpapers SCE-3, Vol. 2, Chapter XIII, Part 1 of 2, page 100.)

[246] ORA accepts this Labor estimate.

[247] PAMM activities consist of "procurement, expediting, contract administration, and support of the Material Management System. This account also includes freight and expediting costs not included in the standard unit cost of material." Exhibit.: SCE-3, Vol. 2, Chapters IX-XVIII, page 81, lines 8-9.

[248] Workpapers SCE-3, Vol. 2, Chapter XIII, Part 1 of 2, page 103.

[249] See Footnotes # 140 and # 179.

[250] The FERC and SCE define this account as including the cost of nuclear fuel expense. (FERC quote…) (Workpapers SCE-3, Vol. 2, Chapter XIV, XV & XVII, page 1.)

FERC Account # 524: Miscellaneous nuclear power expenses.[251]

There is no historical data associated with this account. SCE applies only the future Adjustment # 35 Allocation of Common O&M to this account.[252] According to SCE a Budget Based Methodology was used based on "ratios of SCE's and contractor labor costs between the allocation recipients which would vary year to year."[253]

ORA accepts SCE's estimates provided under this account and no changes are suggested.[254]

FERC Account # 532: Maintenance of Miscellaneous nuclear plant.[255]

Similar to FERC Account # 524 above, this account represents the impact of future Adjustment # 35 Allocation of Common O&M.

ORA accepts SCE's estimates provided under this account and no changes are suggested.[256]

Participants Functional Group

In this functional group SCE applied the participant share credit. SCE describes this credit as follows:[257]

> The participant share credit represents the SONGS participants share of the 100% level of O&M expenditures. It is a "calculated" amount which is derived by applying the participant ownership share percentage (per the San Onofre Nuclear Generating Station Operating Agreement) to the 100% level O&M expenditures.

ORA recalculated this Participant share credit based on our Test Year estimates.

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[251] See FERC Account definition in Footnote # 135. SCE's definition of this account is that it "includes all expenses related to the allocation of SONGS Common Operating costs to SONGS 1 Shutdown O&M, SONGS 1 Decommissioning and SONGS 2&3 Capital." (Workpapers SCE-3, Vol. 2, Chapter XIV, XV & XVII, page 12.)
[252] See under Historical & Future Adjustment section for Adjustment # 35.
[253] Workpapers SCE-3, Vol. Chapter XIV, XV & XVII, page 15 and see Adjustment # 35 for further details.
[254] SCE's total Test Year amount for this account is $(12,266)K.
[255] See FERC Account definition in Footnote # 151. SCE refers to this account as including "includes all expenses related to the allocation of SONGS Common Maintenance costs to SONGS 1 Shutdown O&M, SONGS 1 Decommissioning and SONGS 2&3 Capital." (Workpapers SCE-3, Vol. 2, Chapter XIV, XV & XVII, page 26.)
[256] SCE's total Test Year amount for this account is $(1,402)K.

PARTICIPANT SHARE CREDITS FOR SONGS 2&3
(CONSTANT 2000$ X 1,000)

FERC Account #	ORA Estimate	Participant Credit Share at 24.95%
517	44,819	(11,182)
519	655	(163)
520	16,451	(4,105)
523	6,011	(1,500)
524	38,814	(9,684)
525	1,110	(277)
528	13,835	(3,452)
529	9,468	(2,362)
530	13,302	(3,319)
531	11,529	(2,876)
532	17,792	(4,439)
Total	173,786	(43,359)

In conclusion, according to ORA's methodology the total SONGS 2&3 estimate has been reduced by $17,404K: this represents a reduction of 11% from SCE's estimate for Test Year 2003.

The following Table illustrates a detailed comparison of SCE's and ORA's estimates for SONGS 2&3 Operations & Maintenance.

[257] Workpapers SCE-3, Vol. 2, Chapter XIV, XV & XVII, page 44.

SONGS 2&3 O&M ESTIMATES

(Constant 2000$ x 1,000)

Functional Group	FERC Account #	SCE	ORA	SCE exceeds ORA by:
Operations	517	879	879	-
Operations	519	655	655	-
Operations	520	4,213	4,207	6
Operations	523	5,882	5,882	-
Operations	524	5,984	5,486	498
Maintenance	524	3,494	2,604	890
Maintenance	528	9,713	8,401	1,312
Maintenance	529	5,870	5,809	61
Maintenance	530	7,772	6,954	818
Maintenance	531	9,427	8,179	1,248
Maintenance	532	11,311	11,084	227
Engineering	517	19,707	19,230	477
Engineering	520	128	128	-
Engineering	524	5,927	5,242	685
Engineering	528	3,729	3,724	5
Engineering	530	6,402	6,348	54
Engineering	531	3,390	3,350	40
Engineering	532	2,318	1,384	934
Site Projects	517	6,390	4,843	1,547
Site Projects	532	6,070	2,674	3,396
RadChemical	517	347	347	-
RadChemical	520	10,851	10,273	578
RadChemical	523	193	129	64
RadChemical	524	2,262	2,151	111
Regulatory Affairs	517	2,341	2,341	-
Regulatory Affairs	524	4,764	4,647	117
Security	517	1,126	1,126	-
Security	524	12,788	7,011	5,777
Training	524	7,625	5,589	2,036
Nuclear Support	517	16,173	16,053	120
Nuclear Support	520	1,850	1,843	7
Nuclear Support	524	19,219	18,350	869
Nuclear Support	525	1,110	1,110	-
Nuclear Support	528	2,295	1,710	585
Nuclear Support	529	3,871	3,659	212
Nuclear Support	532	4,559	4,052	507
Corporate Support	524	(12,266)	(12,266)	-
Corporate Support	532	(1,402)	(1,402)	-
Participant	517	(11,711)	(11,182)	(529)
Participant	519	(163)	(163)	-

Participant	520	(4,252)	(4,105)	(147)
Participant	523	(1,516)	(1,500)	(16)
Participant	524	(12,424)	(9,684)	(2,740)
Participant	525	(277)	(277)	-
Participant	528	(3,926)	(3,452)	(474)
Participant	529	(2,430)	(2,362)	(68)
Participant	530	(3,536)	(3,319)	(217)
Participant	531	(3,198)	(2,876)	(322)
Participant	532	(5,703)	(4,439)	(1,264)
Total (SCE share)		147,831	130,427	17,404

II. SONGS 1 SHUTDOWN[258]

A. DISCUSSION

According to SCE, SONGS 1 Shutdown expenses are limited to:[259]

- Safe storage of used fuel in the SONGS 1 used fuel pool until it is removed;[260] and
- Preservation of safe physical conditions in the areas of SONGS 1 not under the control of the decommissioning project.

SCE's SONGS 1 Shutdown expenditures are indicated in FERC Accounts # 517, 520, 524, 525, 528, 530, 531 and 532.[261] Each FERC Account is subdivided in *labor* and *non-labor* amounts. The *non-labor* amount includes materials, consumables, fees and licenses, employee expenses, as well as "contracted labor" and vendor services, which contain a labor element.[262]

Historical & Future Adjustment

In Adjustment #1 on Allocation of Common O&M to SONGS 1 Shutdown O&M:[263] SCE is "removing Common O&M allocation from the SONGS 1 Shutdown O&M recorded costs in 2000" in order to consolidate Common O&M expenditures in the historical period. And then, as identified in Adjustment # 35 (under SONGS 2&3 section), to allocate Common O&M's portion applicable to SONGS 1 Shutdown O&M in the forecasted years 2001-2003.[264] ORA agrees with this adjustment.

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[258] SCE is 80% owner of SONG 1.
[259] Exhibit SCE-3, Vol. 4, page 1, lines 9-12.
[260] "When all of the SONGS 1 used fuel is removed from the SONGS 1 used fuel pool sometime in 2004, and the used fuel pool is ready for transmission to decommissioning, SCE will make an advice letter filing to remove the variable SONGS 1 shutdown O&M costs from rates and to reallocate the fixed SONGS common costs to SONGS 2&3 O&M and capital as well as the SONGS 1 decommissioning project." Exhibit SCE-3, Vol. 4, page 12, lines 12-17.
[261] The description for these FERC Accounts is similar to those footnoted for SONGS 2&3.
[262] DR-ORA-090, question #1.
[263] Workpapers SCE-3, Vol. 4, Part 2 of 2, page 1.
[264] Workpapers SCE-3, Vol. 4, Part 2 of 2, page 1.

Future Adjustment

Adjustment # 2 refers to the Participant Share Credits for SONGS 1 for the forecasted years (2001-2003): these credits represent the billings as recorded in the SONGS participant accounts.[265] ORA agrees with this adjustment.

Account by Account Analysis – SONGS 1 Shutdown

FERC Account # 517: Operation supervision and engineering.[266]

SCE used a 3-year average for its labor and non-labor estimates on the basis of meeting future needs, as well as tight standard deviations.[267]

ORA agrees with SCE's estimates for this account.

FERC Account # 518: Nuclear Fuel Expense[268]

There are no amounts associated with this account in SCE's GRC request.

FERC Account # 520: Steam expenses.[269]

There are two (2) historical adjustments impacting this account: Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations and Adjustment #1 on the Removal of Common Site Costs from 2000 Recorded Costs. ORA accepts both these adjustments.

There is also one future Adjustment # 1 on the Allocation of Common O&M. ORA accepts this adjustment.

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[265] Workpapers SCE-3, Vol. 4, Part 2 of 2, page 4.
[266] See FERC Account definition in Footnote # 115. SCE's definition of this account is that it "includes the cost of labor and expenses incurred in the general supervision and direction of the operation of nuclear power generating stations for SONGS 1 O&M Shutdown." (Workpapers SCE-3, Vol. 4, Part 2 of 2, page 7.)
[267] Workpapers SCE-3, Vol. 4, Part 2 of 2, page10.
[268] The FERC defines this account as including the cost of nuclear fuel expense. (FERC website.) SCE more specifically refers to "the net costs of nuclear fuel assemblies used in the production of energy for SONGS O&M Shutdown." (Workpapers SCE-3, Vol. 4, Part 2 of 2, page 18.)
[269] See FERC Account definition in Footnote # 122. SCE's definition of this account is that it "includes the cost of labor, materials used and expenses incurred in the production of steam through nuclear processes, and similar expenses for operation of any auxiliary superheat facilities for SONGS 1 O&M Shutdown." (Workpapers SCE-3, Vol. 4, Part 2 of 2, page 29.)

SCE used a 3-year average for its labor and non-labor estimates. ORA agrees with the methodology used and no changes are recommended for this account.

FERC Account # 524: Miscellaneous nuclear power expenses.[270]

In this account there is one Company Wide Adjustment, which removes spent fuel expenses at Palo Verde and SONGS.

SCE used a 3-year average for its Labor and Non-labor estimates. ORA agrees with the methodology used and no changes are recommended for this account.

FERC Account # 525: Rents.[271]

There are no amounts associated with this account in SCE's GRC request.

FERC Account # 528: Maintenance supervision and engineering.[272]

There are no amounts associated with this account in SCE's GRC request.

FERC ACCOUNT # 530: MAINTENANCE OF REACTOR PLANT EQUIPMENT.[273]

There is only one (1) historical adjustment impacting this account - Adjustment # 12 on Remapping of Division Overheads & Supply Expense Allocations. ORA accepts this adjustment.

SCE used a 3-year average for its Labor and Non-labor estimates. ORA agrees with the methodology used and no changes are recommended for this account.

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[270] See FERC Account definition in Footnote # 135. SCE's definition of this account is that it "includes the cost of labor, materials used and expenses incurred which are not specifically provided for or are not readily assignable to other nuclear generation operation accounts for SONGS 1 O&M Shutdown." (Workpapers SCE-3, Vol. 4, Part 2 of 2, page 43.)

[271] See FERC Account definition in Footnote # 236. SCE's definition of this account is that it "includes all rents of property of other used, occupied or operated in connection with nuclear generation for SONGS 1 O&M Shutdown." (Workpapers SCE-3, Vol. 4, Part 2 of 2, page 54.)

[272] See FERC Account definition in Footnote # 143. SCE's definition of this account is that it "includes the cost of labor and expenses incurred in the general supervision and direction of the maintenance of nuclear power generating stations for SONGS 1 O&M Shutdown." (Workpapers SCE-3, Vol. 4, Part 2 of 2, page 65.)

[273] See FERC Account definition in Footnote # 157. SCE's definition of this account is that it "includes the cost of labor, material used and expenses incurred in the maintenance of reactor plant for SONGS 1 O&M Shutdown." (Workpapers SCE-3, Vol. 4, Part 2 of 2, page 76.)

FERC Account # 531: Maintenance of electric plant.[274]

SCE used a 3-year average for its Labor estimate and states that no funds are required for Non-Labor.[275]

ORA agrees with the methodology used and no changes are recommended for this account.

FERC Account # 532: Maintenance of Miscellaneous nuclear plant.[276]

There is one (1) historical adjustment impacting this account on the Removal of Common Site Costs from 2000 Recorded Costs and one (1) future adjustment on Allocation of Common O&M to SONGS 1 Shutdown O&M. ORA accepts both these adjustments.

SCE used a 3-year average for its Labor estimate and states that no funds are required for Non-Labor.[277] ORA agrees with the methodology used and no changes are recommended for this account.

SONGS 1 SHUTDOWN O&M PARTICIPANTS FERC ACCOUNTS # 517 - 532

Participants' share of O&M expenses were included and credited for FERC Accounts # 517, 520, 524, 525, 528, 530, 531 and 532. in order to arrive at SCE's share as per future Adjustment # 2 Participant Share Credits for SONGS 1 for the forecasted years (2001-2003).[278]

B. CONCLUSIONS

There are no changes recommended for SCE's SONGS 1 Shutdown O&M estimates.

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[274] See FERC Account definition in Footnote # 162. SCE's definition of this account is that it "includes the cost of labor, material used and expenses incurred in the maintenance of electric plant for SONGS 1 O&M Shutdown." (Workpapers SCE-3, Vol. 4, Part 2 of 2, page 87.)
[275] Workpapers SCE-3, Vol. 4, Part 2 of 2, page 90.
[276] See FERC Account definition in Footnote # 165. SCE's definition of this account is that it "includes the cost of labor, material used and expenses incurred in the maintenance of miscellaneous nuclear generating plant for SONGS 1 O&M Shutdown." (Workpapers SCE-3, Vol. 4, Part 2 of 2, page 101.)
[277] Workpapers SCE-3, Vol. 4, Part 2 of 2, page 90.

[278] Workpapers SCE-3, Vol. 4, Part 2 of 2, pages 115-226 and page 6 for Adjustment # 2.

III. PALO VERDE

A. DISCUSSION

This section describes SCE's share of O&M costs related to Palo Verde.[279] The Arizona Public Service (APS) is the operating agent for this nuclear power plant, located in Phoenix, Arizona. It consists of three identical 1,270-megawatt pressurized water reactors: generating electricity to Arizona, California, New Mexico and Texas. SCE owns a15.8% share of this facility, and as such is responsible for that share of costs.

SCE proposes for Palo Verde to change the existing Incremental Cost Incentive Pricing (ICIP) ratemaking with conventional "cost-of-service" ratemaking.[280] If adopted this change would be effective as of this General Rate Case. ORA has assessed forecast expenditures on the basis of the proposed ratemaking mechanism.

In its Exhibit SCE describes its share of O&M costs, including its oversight costs and refueling and maintenance outage expenses.[281] The workpapers further elaborate on the cost breakdown by FERC Account.

SCE notes that "APS did not develop the Test Year estimate and projections. This information was developed by Edison."[282] ORA, however, requested APS historical/recorded amounts for the period under review, and total calculations suggest that they closely approximate those of SCE's actuals.[283]

All of Palo Verde estimates have been recorded in SCE's testimony and workpapers as non-labor amounts, with the exception of FERC Account # 517 where labor costs associated with SCE's oversight are recorded.[284]

The methodology selected by SCE for Palo Verde was across the board based on a 3-year average method, except for the Labor estimate under FERC Account # 517 which

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[279] SCE's share of these costs are 15.8% of the total.
[280] Exhibit No: SCE-3, Vol. 1 - Policy, Overview, Nuclear, pg. 2.
[281] See Exhibit SCE-3, Vol. 5, pages 13-15.
[282] DR-ORA-047, question #2.
[283] DR-ORA-119, question #1.

is based on the Last Recorded Year (2000) and an incremental amount for increased oversight activities.

SCE selected a 3-year average, because this method showed the tightest standard deviation.[285] But more importantly "because the operating agent (Arizona Public Service) acknowledges that the year 2000 was the last year of overall decreasing O&M costs, therefore an average over a reasonable period was judged to be a better forecasting methodology."[286] However, ORA contends that the Operating Agent in its Palo Verde Business Plan does not envision an increase as the one adopted by SCE. This information cannot be disclosed, because this Business Plan is marked confidential and subject to Public Utilities Code §583 and General Order No. 66C.[287] Moreover, even if this information was available, there is no explanation provided as to the reasoning for the O&M increase envisioned by the Operating Agent, and SCE as the co-owner does not offer one. Even more perplexing, is that in its testimony SCE mentions that 2000 was "a year of record performance… (and it) concluded that use of such an outstanding year was inappropriate for projecting future funding needs."[288]

In light of such scant information ORA recommends the Last Recorded Year (2000) for all of Palo Verde's estimates, whether Labor or Non-Labor, in that at least those costs are representative of a record performance. Furthermore, ORA is limited in its analysis due to the fact that anticipated and increased work activities within each Palo Verde FERC Account are not identified anywhere in SCE's GRC application, including its workpapers.

ORA has also removed Y2K related expenses from the relevant Palo Verde FERC Accounts, as it was done in nuclear, coal, hydro and other generation. These expenses are a one-time occurrence and do not reflect Test Year 2003 expenditures.

Historical Adjustments

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[284] SCE clarifies that "all billings to SCE for operations of plants such as Palo Verde enter the SCE accounting system as non-labor costs." Exhibit No.: SCE-3, Vol. 5, page 11, lines 6-7.
[285] Exhibit No.: SCE-3, Vol. 5, page 11, lines 11-16.
[286] Workpapers SCE-3, Vol. 5, page 13.
[287] DR-ORA-048.
[288] Exhibit No.: SCE-3, Vol. 5, page 12, lines 5-9.

Adjustment # 1: Adjustment to Reflect Actual Billings

According to SCE practice there were Miscellaneous monthly journal entries to accrue future month's costs in the nuclear FERC Accounts in 1996, 1997, 1998 and 1999 in order to "provide an annualized view of the Palo Verde costs as billed by the operating agent…(and) This adjustment reverses the journal voucher adjustments that were made in those years such that monies expended for SCE's share of Palo Verde are shown in the appropriate years."[289]

Since ORA has selected the Last Recorded Year (2000) consistently throughout Palo Verde's FERC Account estimates, this adjustment has no bearing on the forecast, because these accounting practices do no affect the year 2000.

Future Adjustments

Adjustment # 2: New Security Requirements

In Adjustment # 2 on New Security Requirements, SCE requests additional funds in meeting Post-September 11 threats by hiring additional security guards "who are assumed to be APS employees."[290] However, SCE cites in a data request response that the number of Palo Verde security guards is considered "Safeguards Information" by APS and as such it cannot be disclosed to the Commission.[291]

On September 11, the National Guard and the Maricopa County Sheriff's Department were responsible for security at Palo Verde.[292] And in a subsequent federal alert on October 29, 2001, the National Guard was deployed again to protect the plant.[293]

The Nuclear Regulatory Commission (NRC) has urged licensees facilities to remain under alert and several advisories have been issued to that effect. Palo Verde was found in compliance of new security requirements in 2001 with the existing level of security guards working overtime.

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[289] Workpapers, SCE-3, Volume 5, page 1.
[290] Workpapers, SCE-3, Volume 5, page 8, under "Assumptions". APS supporting documents for this adjustment were not provided as part of workpapers or follow up data request response from SCE.
[291] DR-ORA-073, question #2.
[292] Palo Verde Engineering and Operating Committee (E&O Committee) Meeting Minutes #294, dated December 5, 2001, page 8.
[293] News Release "Arizona National Guard to assist Palo Verde" dated Oct. 30, 2001. (See WWW.GOVERNOR.STATE.AZ.US)

According to SCE:

> There have been two NRC security assessments at PVNGS (Palo Verde Nuclear Generating Station) after September 11, 2001. NRC Integrated Inspection Report dated October 30, 2001, covers the period July 8, 2001 through October 6, 2001. The report states the NRC has monitored maintenance and other activities at PVNGS which could relate to the site's security posture, and based on the results of NRC Integrated Inspection Report dated January 24, 2002, covers the period October 7, 2001, through December 29, 2001. The report states the NRC has conducted various audits of PVNGS responses to NRC advisories and their ability to respond to terrorist attacks with the capabilities of the current design-basis threat. From these audits, the NRC has concluded that the PVNGS security program was adequate.[294]
>
> …Palo Verde has received several NRC Advisories subsequent to 9/11/01 including a significant one on October 6, 2002. Elements of theses advisories were implemented immediately in order to remain in compliance with NRC requirements. On February 25, 2002, the NRC issued an Order modifying the operating licenses for PVNGS to require compliance with specified interim safeguards and security compensatory measures. The Order requires responses and actions within specified deadlines, with completion of the last requirement no later than August 31, 2002. APS intends to complete implementation of all requirements in the Order by August 31, 2002, as required by the NRC.[295]

There are still on-going deliberations on defining and planning new security arrangements at the industry and the federal regulatory level:[296]

[redacted]

As previously stated for a similar request for SONGS (Future Adjustment # 45), there is a potential that federal funds will be available to cover new security requirements at nuclear power plants if the Nuclear Security Act of 2001 (Bill # S. 1746) is passed.[297]

The Commission should weigh carefully federal and state responsibilities for national security arrangements at nuclear plants; as well as whether the burden should fall

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[294] DR-ORA-093, question #1.
[295] DR-ORA-093, question #2.
[296] Palo Verde Engineering and Operating Committee (E&O Committee) Meeting Minutes #295, dated January 23, 2002, page 5.
[297] A copy of Bill # S. 1746 is enclosed in this testimony in Appendix D.

exclusively within the responsibility of Californian ratepayers to absorb, since the protection of Palo Verde is for benefit of the greater public in several states and national interest.[298]

In reference to new security requirements for Coal and Hydro plants, SCE states that there is a pending proposal to provide a funding stream for incremental security costs at the FERC. In addition, NARUC (National Association of Regulatory Commissioners) passed a resolution in October 2001 encouraging State Regulators to absorb these costs. The PUC has not responded to this resolution.[299]

ORA does not recommend the inclusion of this adjustment in its Test Year estimate.

Account by Account Analysis – Palo Verde

FERC Account # 517: Operation supervision and engineering.[300]

There is only one (1) historical Adjustment # 1 to reflect actual billings, as explained above under the Historical Adjustments section. However, this adjustment has no impact due to ORA's Test Year selection.

SCE selected a budget-based method for its labor estimate, because it anticipates a greater level of oversight in the future due to the following activities:[301]

a) SCE legal support for the transfer for PVNGS ownership and operating agent functions from Arizona Public Service (APS) to Pinnacle West Energy (PWE).
b) Unit 1 and Unit 3 steam generator condition, effectiveness of plugging methodologies and oversight of preparatory work for steam generator replacement.
c) Oversight of the low pressure (LP) turbine rotor replacement.

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[298] The Palo Verde Generating Station generates electricity to serve the people in the states of Arizona, California, New Mexico and Texas.
[299] DR-ORA-109 and DR-ORA-110.
[300] See FERC Account definition in Footnote # 115. SCE's definition of this account is that it "includes the cost of labor and expenses incurred in the general supervision and direction of the operation of nuclear power generating stations for Palo Verde." (Workpapers SCE-3, Vol. 5, page 10.)
[301] DR-ORA-074, question #4. Regular oversight activities consist of SCE's participation in the Engineering & Operations Committee and the Administrative Committee.

When comparing with a 5-year average, SCE's projected oversight costs represent a 66% increase in SCE personnel cost, an 81% increase in Contract Support cost and a 14% reduction in Travel & Expenses, and a total increase of oversight-related costs of 50%.[302] And the total proposed labor estimate represents a 354% increase from the Last Recorded Year (2000).

In a subsequent data request SCE clarifies that one of the above-mentioned reasons for the increase in oversight costs is no longer applicable, and this refers to the item marked a) above. SCE explains this change as follows:[303]

> Edison personnel will support the last two of the three of the listed oversight activities in 2003. The first listed activity is likely to be postponed to 2004, if the Arizona Corporation Commission adopts a recent Administrative Law Judge's proposed decision, dated July 23, 2002, that postpones the transfer of APS' share of Palo Verde to PWE for at least a year. The Edison personnel includes 2.0 full-time equivalent personnel responsible for day-to-day oversight activities and 0.5 full-time equivalent personnel from various SCE organizations that assist in the oversight. Examples of oversight activities include SCE evaluation and monitoring of new major projects such as steam generator replacement. SCE technical personnel evaluate the need and scope of the project, financial analysts evaluate the financial impact of the project, and project managers assure that all of SCE's needs are considered. Allocation of time for these individuals on the listed projects has not been determined but will depend on complexity and timing of the issues. All SCE personnel costs are classified as labor.
>
> Contract support is used to provide SCE with the ability to obtain real time information on the current operation and issues of Palo Verde including all three of the issues listed above. It is not cost effective or practical to have SCE personnel traveling to Palo Verde on a continuous basis to obtain this information. Therefore, SCE has a contract with personnel located in Arizona that can provide this information. Contract support costs are classified as non-labor.
>
> Travel and Support is a non-labor expense for SCE personnel to attend routine participant meetings, travel to special meetings as necessary, and Miscellaneous support activities.
>
> Additional information/supporting documents are not available.

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[302] DR-ORA-074, question # 5.

SCE provides no further detailed breakdown of its aggregate forecast numbers to allow sufficient verification by ORA of how the proposed amounts were arrived at by SCE. In addition, the issue of historical amounts being insufficient in covering these oversight costs has not been address anywhere in SCE's testimony, workpapers and DR-ORA-156. Therefore, SCE has not met its burden of proof for the proposed amounts associated with its oversight activities. In the absence of more specific information, ORA recommends the Last Recorded Year (2000) as the labor estimate for this FERC account.

A 3-year average was selected by SCE for its non-labor estimate, "because the operating agent (Arizona Public Service) acknowledges that the year 2000 was the last year of overall decreasing O&M costs, therefore an average over a reasonable period was judged to be a better forecasting methodology."[304] However, ORA contends that the Operating Agent in its Palo Verde Business Plan does not envision an increase as the one adopted by SCE. Since the information in this Business Plan is marked confidential and subject to Public Utilities Code §583 and General Order No. 66C, ORA is not at liberty to use the percentage increase from year 2000 as indicated therein.[305] More importantly, even if this information was available, there is no explanation provided as to the reasoning for the increase envisioned by the Operating Agent, and SCE as the co-owner does not offer one either. In light of such scant information ORA selects the Last Recorded Year (2000) for the Non-Labor estimate.

Therefore, the Test Year estimate changes to $5,659K, which represents a difference of $342K from SCE's estimate.

FERC Account # 518: Nuclear fuel expense.[306]

There were no expenses requested under this FERC account.

FERC Account # 519: Coolants and water.[307]

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[303] DR-ORA-156, question # 1.
[304] Workpapers SCE-3, Vol. 5, page 13.
[305] DR-ORA-048.
[306] The FERC defines this account as including the cost of nuclear fuel expense. (FERC website.) SCE's definition of this account is that it "includes the cost of nuclear fuel assemblies used in the production of energy for Palo Verde." (Workpapers SCE-3, Vol. 5, page 24.)

In FERC Account # 519, SCE mentions that 4 and 5-year averages were rejected and that years 1996 and 1997 should be disregarded in the analysis, because during those years "Palo Verde was stabilizing its operations after a period of elevated costs".[308] In addition, the proposed 3-year average (1998-2000) provides "funding levels to meet work scope consistent with the project operating agent (APS) projects."[309] No further details were provided by SCE to support these two statements.

In light of the scant details about costs associated with this account. ORA recommends the Last Recorded Year (2000) amount of $2,790K. This will meet future work scope needs since it exceeds SCE's estimate by $57K. ORA proposes that this amount could offset other unforeseen expenses arising from this or other FERC Accounts under Palo Verde.

FERC Account # 520: Steam Expenses[310]

As previously stated, SCE maintains that "the operating agent (Arizona Public Service) acknowledges that the year 2000 was the last year of overall decreasing O&M costs, therefore an average over a reasonable period was judged to be a better forecasting methodology."[311] And therefore, SCE selected a 3-year average for this account. However, ORA maintains that the increase envisioned by the Operating Agent for Test Year 2003 is not at the level of SCE's estimate.[312] In light of insufficient justification provided in SCE's testimony and workpapers specific to this FERC Account, ORA proposes the Last Recorded Year (2000).

Thus, the Test Year estimate changes to $3,413K. This represents a difference of $160K from SCE's estimate.

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[307] See FERC Account definition in Footnote # 119. SCE's definition of this account is that it "includes the cost of labor, materials used and expenses incurred for heat transfer materials and water used for steam and cooling purposes for Palo Verde." (Workpapers SCE-3, Vol. 5, page 35.)
[308] DR-ORA-074, question #6.
[309] DR-ORA-074, question #6.
[310] The FERC defines this account as including the cost of labor, materials used and expenses incurred in production of steam through nuclear processes, and similar expenses for operation of any auxiliary superheat facilities. (FERC website.) SCE definition of this account is that it "includes the cost of labor, materials used and expenses incurred in the production of steam through nuclear processes, and similar expenses for operation of any auxiliary superheat facilities for Palo Verde.
[311] Workpapers SCE-3, Vol. 5, page 13.
[312] See Footnote # 305.

FERC Account # 523: Electric expenses.[313]

In FERC Account # 523, SCE used the same rationale -as stated above for FERC Account #519- in selecting a 3-year average (1998-2000). Again, no additional details were provided by SCE to support this position (other than what is stated in FERC Account #519).

In light of scarce evidence of the work scope needs for this account, ORA selects the Last Recorded Year (2000) amount of $2,623K. This represents an increase of $282K from SCE's estimate. Since this exceeds SCE's request, ORA proposes that this amount could offset other unforeseen expenses arising in other FERC Accounts under Palo Verde.

FERC Account # 524: Miscellaneous nuclear power expenses.[314]

There is one historical adjustment affecting this account – Adjustment # 1 to reflect actual annual billings. And there is one company wide historical adjustment removing spent fuel at Palo Verde and SONGS. However, these adjustments have no impact on ORA's proposed estimate for this FERC Account.

In FERC Account 524, SCE used a 3-year average (1998-2000) as its base estimate and an increment of $525K as a result of Adjustment #2 on New Security Requirements.[315] As stated previously, ORA objects to the inclusion of Adjustment #2.

Thus, ORA recommends that this FERC Account remains at the level of the Last Recorded Year (2000) of $11,139K. This revised estimate is $689K less than SCE's forecast.

FERC Account # 525: Rents.[316]

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[313] See FERC Account definition in Footnote # 126. SCE definition of this account is that it "includes the cost of labor, materials used and expenses incurred in operating turbogenerators, steam turbines and their auxiliary apparatus, switch gear and other electric equipment to the points where electricity leaves for conversion for transmission or distribution for Palo Verde." (Workpapers SCE-3, Vol. 5, page 57.)

[314] See FERC Account definition in Footnote # 135. SCE's definition of this account is that it "includes the cost of labor, materials used and expenses incurred for Palo Verde which are not specifically provided for or are not readily assignable to other nuclear generation operation accounts." (Workpapers SCE-3, Vol. 5, page 68.)

[315] DR-ORA-073, question #7.

There are no estimates associated with this FERC Account.

FERC ACCOUNT # 528:MAINTENANCE SUPERVISION AND ENGINEERING.[317]

There is one historical adjustment affecting this account – Adjustment # 1 to reflect actual annual billings. However, this adjustment has no impact due to ORA's forecasting methodology.

In relation to FERC Account # 528, ORA inquired as to the lower expenditures stated for 2000 as compared to other years under review and SCE responded as follows:[318]

> The amount of work in any given FERC account, in any given year, varies from year to year. In addition, to the normal variances, Arizona Public Service (APS) changed their charging practices (effective with year 2000 expenditures) for steam generator eddy current testing from FERC account 528 to FERC account 530.

Y2K related expenses have been removed from Palo Verde FERC Account # 528 since these expenses are a one-time occurrence and do not reflect Test Year 2003 estimate.[319]

ORA recommends the Last Recorded Year (2000) amount for this FERC Account, consistent with the explanation provided for all other Palo Verde FERC Accounts. In addition, the use of the Last Recorded Year incorporates the new charging practices, as mentioned in the above-mentioned quote. Thus, the Test Year estimate is $3,455K, which represents a difference of $1,012K from SCE's forecast.

FERC Account # 529: Maintenance of structures.[320]

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[316] See FERC Account definition in Footnote # 236. SCE's definition of this account is that it "includes all rents of property of other used, occupied or operated in connection with nuclear generation for Palo Verde." (Workpapers SCE-3, Vol. 5, page 82.)
[317] See FERC Account definition in Footnote # 143. SCE's definition of this account is that it "includes the cost of labor and expenses incurred in the general supervision and direction of the maintenance of nuclear power generating stations for Palo Verde." (Workpapers SCE-3, Vol. 5, page 93.)
[318] DR-ORA-074, question 8.
[319] DR-ORA-149, question #1.
[320] See FERC Account definition in Footnote # 151. SCE definition of this account is that it "includes the cost of labor, materials used and expenses incurred in the maintenance of structures for Palo Verde." (Workpapers SCE-3, Vol. 5, page 104.)

There is one historical adjustment affecting this account – Adjustment # 1 to reflect actual annual billings. However, this adjustment has no impact due to ORA's forecasting methodology.

In FERC Account # 529, the historical period indicates that the lowest expenditures were incurred in 2000. SCE attributes this lower amount to year to year variations associated with this account and a change of accounting practices by APS. These accounting changes consisted of the transferal of expenditures associated with the maintenance of the Water Reclamation Facility from FERC Account # 529 to FERC Account # 519, and maintenance of non-nuclear structures from FERC Account # 529 to FERC Account # 524.[321]

ORA recommends the Last Recorded Year (2000) amount for this FERC Account, consistent with the explanation provided for all other Palo Verde FERC Accounts. In addition, the use of the Last Recorded Year incorporates the above-mentioned recording changes. The Test Year estimate for this account is $1,362K and therefore a difference of $218K from SCE's forecast.

FERC Account # 530: Maintenance of reactor plant equipment.[322]

There is one historical adjustment affecting this account – Adjustment # 1 to reflect actual annual billings. However, this adjustment has no impact due to ORA's forecasting methodology.

As previously stated, SCE maintains that "the operating agent (Arizona Public Service) acknowledges that the year 2000 was the last year of overall decreasing O&M costs, therefore an average over a reasonable period was judged to be a better forecasting methodology."[323] And therefore, SCE selected a 3-year average for this account. However, ORA maintains that the increase envisioned by the Operating Agent for Test Year 2003 is not at the level of SCE's estimate.[324] In light of insufficient justification

[321] DR-ORA-074, question 9.
[322] See FERC Account definition in Footnote # 157. SCE's definition of this account is that it "includes the cost of labor, material used and expenses incurred in the maintenance of reactor plant for Palo Verde." (Workpapers SCE-3, Vol. 5, page 115.)
[323] Workpapers SCE-3, Vol. 5, page 13.
[324] See Footnote # 305.

provided in SCE's testimony and workpapers specific to this FERC Account, ORA proposes the Last Recorded Year (2000) at $ 5,389. This represents an increase of $466K from SCE's statement. Since this exceeds SCE's request, ORA proposes that this amount could offset other unforeseen expenses arising in other FERC Accounts under Palo Verde.

FERC Account # 531: Maintenance of electric plant.[325]

There is one historical adjustment affecting this account – Adjustment # 1 to reflect actual annual billings. However, this adjustment has no impact due to ORA's forecasting methodology.

As previously stated, SCE maintains that "the operating agent (Arizona Public Service) acknowledges that the year 2000 was the last year of overall decreasing O&M costs, therefore an average over a reasonable period was judged to be a better forecasting methodology."[326] And therefore, SCE selected a 3-year average for this account. However, ORA maintains that the increase envisioned by the Operating Agent for Test Year 2003 is not at the level of SCE's estimate.[327] In light of insufficient justification provided in SCE's testimony and workpapers specific to this FERC Account, ORA proposes the Last Recorded Year (2000) at $2,941K. This represents an increase of $198K from SCE's statement. Since this exceeds SCE's request, ORA proposes that this amount could offset other unforeseen expenses arising in other FERC Accounts under Palo Verde.

FERC Account # 532: Maintenance of Miscellaneous nuclear plant.[328]

There is one historical adjustment affecting this account – Adjustment # 1 to reflect actual annual billings. However, this adjustment has no impact due to ORA's forecasting methodology.

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[325] See FERC Account definition in Footnote # 162. SCE's definition of this account is that it "includes the cost of labor, material used and expenses incurred in the maintenance of electric plant for Palo Verde." (Workpapers SCE-3, Vol. 5, page 126.)
[326] Workpapers SCE-3, Vol. 5, page 13.
[327] See Footnote # 305.
[328] See FERC Account definition in Footnote # 165. SCE's definition of this account is that it "includes the cost of labor, material used and expenses incurred in the maintenance of miscellaneous nuclear generating plant for Palo Verde." (Workpapers SCE-3, Vol. 5, page 137.)

As previously stated, SCE maintains that "the operating agent (Arizona Public Service) acknowledges that the year 2000 was the last year of overall decreasing O&M costs, therefore an average over a reasonable period was judged to be a better forecasting methodology."[329] And therefore, SCE selected a 3-year average for this account. However, ORA maintains that the increase envisioned by the Operating Agent for Test Year 2003 is not at the level of SCE's estimate.[330] In light of insufficient justification provided in SCE's testimony and workpapers specific to this FERC Account, ORA proposes the Last Recorded Year (2000) at $2,033K. This represents an increase of $33K from SCE's statement. Since this exceeds SCE's request, ORA proposes that this amount could offset other unforeseen expenses arising in other FERC Accounts under Palo Verde.

FERC Account # 556: System control and load dispatching.[331]

There is one historical adjustment affecting this account – Adjustment # 1 to reflect actual annual billings. However, this adjustment has no impact due to ORA's Test Year selection.

As previously stated, SCE maintains that "the operating agent (Arizona Public Service) acknowledges that the year 2000 was the last year of overall decreasing O&M costs, therefore an average over a reasonable period was judged to be a better forecasting methodology."[332] And therefore, SCE selected a 3-year average for this account. However, ORA maintains that the increase envisioned by the Operating Agent for Test Year 2003 is not at the level of SCE's estimate.[333] In light of insufficient justification provided in SCE's testimony and workpapers specific to this FERC Account, ORA proposes the Last Recorded Year (2000) at $406K. This represents a decrease of $22K from SCE's estimate.

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[329] Workpapers SCE-3, Vol. 5, page 13.
[330] See Footnote # 305.
[331] The FERC defines this account as including the cost of labor and expenses incurred in load dispatching activities for system control Utilities having an interconnected electric system or operating under a central authority which controls the production and dispatching of electricity. (FERC website.) SCE has a similar definition in its testimony. (Exhibit No.: SCE-3, Vol.5, page 28.)
[332] Workpapers SCE-3, Vol. 5, page 13.
[333] See Footnote # 305.

B. CONCLUSION

According to ORA's methodology the total Palo Verde estimate has been reduced by $1,408K: this represents a reduction of 3% from SCE's estimate for Test Year 2003.

The following Table illustrates a comparison between SCE's and ORA's Palo Verde O&M estimates:

PALO VERDE
O&M ESTIMATES
(CONSTANT 2000$ X 1,000)

FERC Account #	SCE	ORA	SCE exceeds ORA by:
517	6,001	5,658	343
519	2,733	2,790	(57)
520	3,573	3,413	160
523	2,341	2,623	(282)
524	11,828	11,139	689
528	4,467	3,455	1,012
529	1,580	1,362	218
530	4,923	5,389	(466)
531	2,743	2,941	(198)
532	2,000	2,033	(33)
556	428	406	22
Total	42,617	41,209	1,408

CHAPTER 7-C

COAL

I. MOHAVE

SCE is the operating agent at Mohave Generating Station in Southern Nevada. SCE owns a 56%% share of this facility, and as such is responsible for that share of costs.

In this GRC, SCE is requesting that Mohave, as well as for all generation facilities, a return to traditional cost-of-service ratemaking in estimating the 2003 O&M forecast. ORA has followed suit with its estimate along those lines.

The most salient issue raised in Coal generation section is SCE's request to omit years 1999 and 2000 from its GRC forecast. The reason cited is that in those years the plant was facing impending divestiture and therefore O&M expenditures are not reflective of efforts required in Test Year 2003.

The special circumstances faced in 1999 and 2000 are described as follows:[334]

> In 1999 and 2000, as SCE undertook the process of moving out of its former generating stations, and prepared to sell its interest in Mohave... SCE and two of the other Participants entered into agreements to sell their interests in Mohave in 2000. The schedule for Mohave divestiture anticipated an asset transfer during the latter half of 2000 or first quarter of 2001... The good performance observed at Mohave in 1999 and 2000 reflects the maintenance and capital improvement and expense-related improvements undertaken in the years prior to divestiture. However, we cannot let maintenance and capital improvements continue to slide or we will reverse our trend and performance will decrease sharply...

Thus, SCE is proposing to consider years 1996-1998 as "more indicative of Mohave's future-cost performance on a year by year basis."[335] This level of expenditures would allow SCE to increase staffing, reintroduce training and long-range planning. And it clarifies that "this is not a short-term initiative. SCE's overall effectiveness, especially at

[334] Exhibit No.: SCE-3, Volume 7, pages 31-33.
[335] Exhibit No.: SCE-3, Volume 7, page 33, lines 18-20.

Mohave, has suffered (as a result of the anticipated divestiture) from the loss of individuals with special skills and capabilities. Unfortunately, the time required to fully reverse these effects is measured in years, not months."[336]

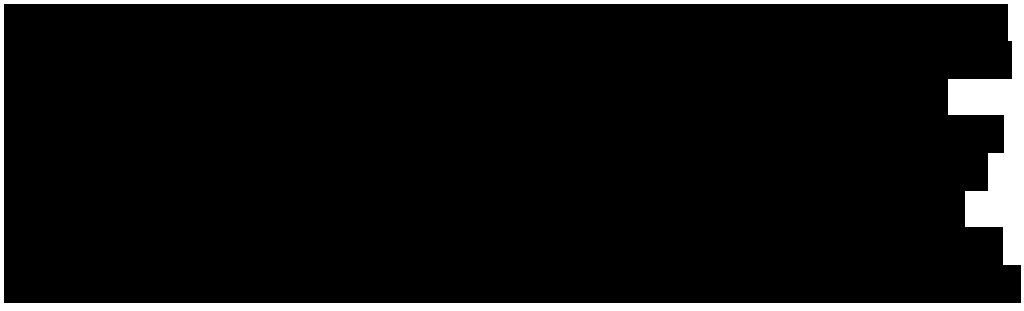
ORA found out that by including only 1996 through 1998 recorded costs in the forecast analysis, as SCE suggests, it would inevitably lead to an omission of the O&M savings achieved through its "*Condition-based Maintenance"* policy and practice, which are attributable to efficiencies in the 1996-2000 period "in overhauls, equipment assessments, technical recommendations and performance analysis and consequent decline in staffing."[337] ORA assumes that those efficiencies have been perfected with time and if one disregards years 1999 and 2000 from the forecast it will mean a forfeiture of those O&M savings.

Furthermore, in the course of preparing for ORA's response to Mohave O&M costs, ORA was informed of Application 02-05-046 regarding the *Future Disposition of Mohave*. This application raises serious issues and uncertainties about Mohave's status after 2005 and the possibility of a temporary or permanent shutdown.

The application states that there are two unresolved issues:[338]

1) The absence of an agreement to secure Mohave's coal supply (including both the mining and the transport of the coal).[339] According to SCE, plant operations during the Test Year (2003) will not be affected by these disagreements since the current Mohave coal supply agreement runs through 2005.

However, prior to submitting A. 02-05-046, SCE stresses that: [340]



[336] Exhibit No.: SCE-3, Volume 7, page 39, lines 1-8.
[337] Exhibit No.: SCE-3, Volume 7, page 21.
[338] Application 02-05-046: Application of Southern California Edison Company (U 338-e) Regarding the Future Disposition of the Mohave Generating Station.
[339] Herein described is also a coal royalties dispute with the Navajo Nation and Hopi Tribes.
[340] Mohave Project. Engineering and Operating Committee. Meeting Minutes January 22, 2002, point 7.

[redacted]

This water supply problem is also mentioned in A. 02-05-046.[341] However, the projected costs are for $200 million for slurry pipeline upgrade and $116 million for the new water supply to the mine.

2) The installation of air pollution control equipment by the end of 2005 as stipulated under the terms of a 1999 Consent Decree.[342] This installation requires an initial investment of $58 million, but could potentially reach "a total cost of approximately $720 million for the pollution controls."[343]

ORA filed a motion to dismiss without prejudice A. 02-05-046 on the basis that there is insufficient information on the future disposition of Mohave, as elaborated in its filing, in terms of economic analysis and alternative approaches. The provision of such information is essential in determining whether the O&M increases and capital expenditures are warranted as formulated in this GRC.

Thus, ORA proposes to limit O&M expenditures for this GRC at the levels of 1999 and 2000. It was during those years that SCE was planning to divest itself of Mohave. However, state law impeded the utility from following through with those plans in order to meet California's supply needs during the energy crisis.[344]

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[341] Application 02-05-046, page 8.
[342] SCE states that the "environmental Consent Decree settled a federal civil lawsuit that was filed against SCE and the other Mohave Co-owners in 1997, alleging various air quality violations at Mohave." (Application 02-05-046, SCE-2, page 9, lines 7-8.)
[343] See A. 02-05-046, SCE-1, page 5, line 8.
[redacted] (Mohave Generating Station –MGS- Coordinating Committee Meeting, March 16, 2001, page 1.)

In light of Application 02-05-046, ORA proposes that costs indicated for 1999 and 2000 best represent the required O&M expenditures, since this period may be reflective of a possible divestiture scenario as the one described above.

SCE mentions in its testimony that:[345]

> Maintaining Test Year expenditures at 1999 & 2000 level would compromise plant reliability and performance… Mohave has been in service for over 30 years as a base load plant and is experiencing the effects of equipment obsolescence, age related deterioration, and accumulated effects of service conditions. Boiler performance is the leading cause of forced outages. Resources and time must be given to the equipment each year to conduct inspections and conduct repairs in order to minimize unexpected production losses resulting from boiler tube failures. Turbine reliability is another area of critical concern. The High Pressure & Intermediate Pressure turbines are at the end of their last overhaul cycles. Over the next several years these turbines require overhaul to maintain reliability. The mechanical integrity of coal burners represents another reliability concern. Due to the erosive nature of coal, these burners require replacement and repair to maintain proper combustion, which is required to assure maximum production under current environmental limits. Mohave's coal slurry system must be properly maintained in order to assure reliable delivery of fuel to the boiler. Coal slurry tanks have experienced wall thinning because of continued exposures to very erosive coal slurry for 30 years. These tanks require extensive repair. Electrostatic precipitators, essential to maximizing Mohave's output under current environmental regulations, require repairs to maintain proper performance levels. Additionally, in order to maintain environmental compliance, the circulating water system requires extensive repair to address problems that have resulted in in-service leakage and associated forced outages. Expenditure levels experienced in 1999 and 2000 are insufficient to enable these and other critical repairs to plant equipment.

SCE further ascertains that the future disposition of Mohave and post-2005 decision have no impact on Test Year 2003 O&M expenditures.[346]

In terms of Mohave's overall performance in 1999 and 2000 it was deemed as one of the best within the expenditure levels recorded for those years. At an Engineering & Operating Committee (E&O) SCE mentions that when comparing with year 1990 the total Mohave budget halved by year 2000 and that "for the first time since…1990, the total production cost was under $20 a megawatt. This includes 100% E&O O&M budget, coal

[345] DR-ORA-075, question #13b.
[346] DR-ORA-075, question #13d.

fuel, and gas fuel. The production year was the highest ever recorded, with a capacity factor of 77.67%."[347]

Furthermore the historical performance of Mohave from 1992 to the 2002 objectives indicates that: [348]

Upon ORA's review of the E&O meeting minutes for the historical period (1996-2000), SCE has indicated that boiler maintenance work has been an integral part of the O&M budget. In its GRC application SCE requests consideration for capital investments associated with boiler tube leaks. However, the utility fails to reduce O&M savings resulting from these capital investments.[349]

ORA adopted a 2-year average (1999-2000) for all the Mohave FERC Accounts, with the exception of FERC Account # 501.013, in order to clearly reflect revenues arising from fly ash sales, and FERC Account # 507.013 in order to reflect actual rents. In addition, ORA has removed from the historical record penalties and Y2K-related expenses. These expenses are one-time occurrences and do not reflect Test Year 2003 expenditures.

All of the Mohave FERC Accounts have been subject to accounting changes and SCE elaborates as follows: [350]

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[347] Mohave Project. Engineering and Operating Committee. Meeting Minutes January 23, 2001, point 5.
[348] Mohave Project. Engineering and Operating Committee. Meeting Minutes August 21, 2001, point 7.
[349] See ORA's Capital section for Mohave.
[350] DR-ORA-075, question #1.

The recorded data for Mohave Coal Accounts has been adjusted to reflect changes in the distribution of overhead between 1996 and 1997. We also made adjustment to reflect the change in recording practice whereby some charges are now recorded as a direct expense to Account 506.013 rather than to a overhead clearing account. Based on these and other adjustments, the Mohave data is comparable except minor amounts due to the following:
Other variations in timekeeping are mentioned in the "Analysis of recorded and forecast labor cost" sections of SCE 3, Vol.7 for Mohave Accounts 500.013, 501.013, 502.013, 502.013, 505.013 and 506.013. We did not make adjustments due to the diverse and nonspecific or sometimes minimal nature of these changes. However, we did consider the effect of these changes in selecting our forecast methodology: We consistently used a three-year average for Mohave operations account's labor so that offsetting changes would be accounted for in the total. See SCE 3, Vol. 7, page 46, lines 3 through 19. Similarly for Four Corners accounts, an unadjusted variation in Four Corners Accounts 500.015 and 510.015 between 1996 and 1997, due to an accounting change is taken into account by the consistent five-year average approach.

There are no recording or accounting changes associated with ORA's selection of a 2-year average (1999-2000) for Mohave. This simplified the analysis process and review. Furthermore, those years had fewer but significant adjustments affecting Mohave FERC Accounts, such as the removal of fuel expenses, correction on the participants' share, etc.

On the other hand SCE used a 3-year average to determine its forecast:

- (1998-2000) for its Mohave Operations forecast for FERC Accounts and excluded years 1996 and 1997, because they do not reflect current accounting practices.[351] (The only exception was FERC Account # 507.013.)
- (1996-98) for its Mohave maintenance forecast and excluded years 1999 and 2000 on the basis of these expenditure levels as being too low, because it anticipated divestiture.[352] (The only exception was FERC Account # 510.013.)

Account by Account Analysis - Mohave

FERC Account # 500.013: Operation supervision and engineering.[353]

[351] Operations FERC Accounts are 500.013, 501.013, 502.013, 506.013, and 507.13.
[352] These Maintenance FERC Accounts are 510.013, 511.013, 512.013, 513.013, and 514.013.
[353] The FERC defines this account as including the cost of labor and expenses incurred in the general supervision and direction of the operation of steam power generating stations. (FERC website.) SCE adds to this definition the following: "Direct supervision of specific activities, such as fuel handling, boiler room

In FERC account # 500.13 for Mohave, SCE uses a 3-Year Average of 1998 – 2000 years as the most representative of future expenses for this account since they reflect changes in recording practices.[354] The last year 2000 was the lowest recorded/historical amount due to personnel vacancies, which SCE expects "to fill those positions which will bring labor expenditures up to the average."[355] No further explanation was provided for the lower non-labor amount in 2000.

SCE used a 3-year average (1998-2000) for this account and excluded years 1996 and 1997, because they do not reflect current accounting practices.

ORA recommends a 2-Year average (1999 – 2000) on the basis of uncertainties over the future disposition of Mohave. Also, by using this methodology there is only one adjustment impacting years 1999 and 2000 and this reflects the correct participant share. ORA agrees with the inclusion of this adjustment.

Therefore, the labor amount changes to $953K, non-labor amount to a negative $247K, and a total Test Year amount of $706K. This constitutes a change of $46K for labor, $17K for non-labor, and $63K from SCE's estimate.

FERC Account # 501.013: Fuel.[356]

SCE used a 3-year average (1998-2000) for its labor estimate and excluded years 1996 and 1997, because they do not reflect current accounting practices; a budget based method for non-labor to reflect overhaul of centrifuge equipment, and the Last Recorded

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operations, generator operations, etc., shall be charged to the appropriate account." (Workpapers, SCE-3, Vol. 7, Part 1 of 2, page 1.)

[354] DR-ORA-075, question #2.

[355] DR-ORA-075, question #2.

[356] The FERC defines this account as including the cost of fuel used in the production of steam for the generation of electricity, including expenses in unloading fuel from the shipping media and handling thereof up to the point where the fuel enters the first boiler plant bunker, hopper, bucket, tank or holder of the boiler-house structure. Records shall be maintained to show the quantity, B.t.u. content and cost of each type of fuel used. (FERC website.) SCE explains that "for SCE's General Rate Case application this account does not include the cost of fuel used in the production of steam for the generation of electricity. However, it does include "…expenses in unloading fuel from the shipping media and handling thereof up to the point where the fuel enters the first boiler plant bunker, hopper, bucket, tank or holder of the boiler-house structure." Additionally, it includes the handling and disposal expense for residual ash and proceeds from the sale of fly ash. In the case of Mohave Generating Station, it also includes the operation and maintenance expense for the Coal Slurry, receiving, handling, dewatering, storage, and reslurry equipment unique to Mohave fuel system." (Workpapers, SCE-3, Vol. 7, Part 1 of 2, page 30.)

Year (2000) for the Other amount to reflect anticipated credits due to the new agreement for the sale of fly ash.[357]

In FERC account # 501.13 for Mohave, the last recorded year (2000) was lowest than previous years due to continued reductions since 1998 in the costs associated with ash management. "This allowed the station to market an increased volume of ash. Consequently, disposal costs were reduced and revenue was increased. This is clearly reflected beginning in 1998, when the credits exceeded debits for non-labor ash management and increased every year through the year 2000."[358] However, this explanation from SCE does not explain why year 2000 should not be selected for the *labor* amount. ORA recommends that the last year (2000) be selected for this FERC Account at $1,674K for the labor estimate. The *non-labor* amount includes new overhaul requirements for centrifuge equipment. SCE states that these costs have escalated in 2001, 2002 and 2003, because these centrifuges are entering the first overhaul cycles since they were newly installed in 1996 and 1997.[359] SCE reports that there were "few major overhauls of centrifuge equipment were required immediately following installation in 1996 and 1997. Since that time, however, as operating hours have increased on the equipment, maintenance demands have similarly increased."[360] However, the coal slurry centrifuge activity from 1998 to 2000 indicates that an average of 18 major overhauls were undertaken annually. In addition, there were no assessment reports to justify these new overhaul requirements for centrifuge equipment and associated costs. SCE states that "maintenance decisions are based on the condition of the equipment. Decisions to remove coal slurry centrifuges from service for major overhaul are driven by real-time equipment performance monitoring, in-service failures or achievement of 10,000 hours of operating time. The 10,000 hour standard is based on historical information covering a period of time from the initial centrifuge installation to the current date. The extent of the overhaul is determined following disassembly and inspection of centrifuge."[361]

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[357] Workpapers SCE-3, Volume 7, Part 1 of 2, page 33.
[358] DR-ORA-075, question #4a.
[359] Workpapers, Volume 7, Part 1 of 2, page 46.
[360] DR-ORA-075, question #4b.
[361] DR-ORA-075, question #4b.

In addition, revenues from Fly Ash sales under the new sales agreement are not clearly reflected in SCE's testimony and workpapers.[362] This omission understates revenues and, consequently, credit amounts to this account. ORA suggest to rectify this understatement by recommending the last year (2000) for the non-labor estimate. This brings the estimate to $1,091K for non-labor and $1,674K for labor. ORA agrees with the *other* amount estimate of $(2,256) consisting of various business adjustments to account for the sale of fly ash and the correlating participant credit.[363] This is a total difference of $669K from SCE's estimate (consisting of a difference of $153K in *labor* and $516K.)[364]

FERC Account # 502.13: Steam expenses.[365]

SCE used a 3-year average (1998-2000) for this account and excluded years 1996 and 1997, because they do not reflect current accounting practices.

ORA identified O&M expenses associated with the Consent Decree as one-time expenses for Plaintiff's attorney's fees and stipulated penalties for emissions at SCE's share of $471K for 2000.[366] SCE is uncertain whether expenses specific to this issue will be incurred in the future, and therefore has not removed them from the historical record.[367] ORA contends that costs associated with environmental violations and related penalties should not be borne by ratepayers. ORA recommends the removal of these expenses from the non-labor portion of FERC Account # 502.013.

The above-mentioned removal and ORA's use of a 2-year average brings the labor and non-labor estimate to $2,879K and a negative $470K, and a total estimate of $2,644K. This represents a labor increase of $54K, a non-labor decrease of $491 and a total decrease of $437K.

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[362] DR-ORA-075, question #4c. This agreement is subject to Public Utilities Code 583 and General Order No. 66C. Public disclosure restricted.
[363] According to SCE response in DR-ORA-075, question #4c: The "Other" amounts is the sum of Business Unit Adjustment numbers 5 and 6 found in workpapers SCE-3, Volume 7, Part 1 of 2, page 52.
[364] There were also two adjustments removing the cost of coal fuel and gas fuel, which impacted the non-labor estimate. ORA accepts these adjustments. (Workpapers SCE-3, Vol. 7, page 51.)
[365] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in production of steam for electric generation. This includes all expenses of handling and preparing fuel beginning at the point where the fuel enters the first boiler plant bunker, hopper, tank or holder of the boiler-house structure. (FERC website.) (Workpapers, SCE-3, Vol. 7, Part 1 of 2, page 72.)
[366] DR-ORA-151, question #1.
[367] DR-ORA-151, question #2.

FERC Account # 505.013: Electric expenses.[368]

SCE used a 3-year average (1998-2000) for this account and excluded years 1996 and 1997, because they do not reflect current accounting practices.

With the recommended use of 2-year average, ORA's estimate for this FERC account becomes $1,044K for labor and $493K for non-labor: this represents a decrease of $56K and an increase of $26K respectively from SCE's 3-year average.

FERC Account # 506.013: Miscellaneous steam power expenses.[369]

In FERC account # 506.13 for Mohave, there is a lower recorded amount for the year 2000 compared to historical and Test Year estimate. SCE accounts for this lower 2000 amount as follows:[370]

> Compared to previous years, tooling and warehousing costs were, on average, approximately $500,000 and $265,000 lower respectively. This is generally due to reduced maintenance activity requiring this type of support, and specifically the reduction in scope of the Unit #2 maintenance outage in 2000.

SCE used a 3-year average (1998-2000) for this account and excluded years 1996 and 1997, because they do not reflect current accounting practices.

ORA has removed Y2K related expenses from Mohave FERC Account # 506.013 since these expenses are a one-time occurrence and do not reflect Test Year 2003 expenditures.[371]

ORA's 2-year average brings the Test Year expense for this account to $5,738K consisting of a labor amount $4,636K and non-labor amount at $1,102K. This reduces SCE's estimate by $60K for labor and $247K for non-labor amounts.

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[368] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in operating prime movers, generators, and their auxiliary apparatus, switch gear and other electric equipment to the points where electricity leaves for conversion for transmission or distribution. (FERC website.) (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 12.)

[369] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred which are not specifically provided for or are not readily assignable to other steam generation operation expense accounts. (FERC website.) (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 44)

[370] DR-ORA-075, question #10.

[371] DR-ORA-149, question #1. These Y2K expenses represent SCE's share at 56% of total.

FERC Accounts # 507.013: Rents.[372]

This account records the credit received from Nevada Power Company for their use of storage space at the plant, which is no longer needed by SCE.[373] SCE states that averages are not appropriate for this account, since the rental amount is fixed. ORA agrees with SCE's selection of the Last Recorded Year (2000) for this account at $(54)K.

FERC Account # 510.013: Maintenance supervision and engineering.[374]

In FERC account # 510.13 for Mohave, explains the lower amount for the last year (2000) as follows:[375]

> Additional review of this account indicates the variation is in the participant billing credit function not to direct 100% activities. If we ignore year 1996 because of the higher labor values and remove the participant owners credit function (6600) from the remaining four years (1997 through 2000)…we find that 1997 was the lowest year. (1997=$3,817, 1998= $4,295, 1999= $4,241, 2000= $4,209) and that minimal variation remains. The reason for the variation in the credit function is one of timing in that it reflects a one or two month lag and the true up between the advance estimated monthly billing and the actual monthly expense.

SCE used a 3-year average (1998-2000) for this account and excluded years 1996 and 1997, because they do not reflect current accounting practices.

ORA's forecast methodology for this account, as explained in the Discussion section above, consists of the use of a 2-year average (1999-2000). This results in a labor estimate of $3,565K and non-labor of $(1,681)K. This represents a labor increase of $30K, a decrease of $64K for non-labor, and a total decrease of $34K from SCE's estimate.

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[372] The FERC defines this account as including all rents of property of others used, occupied or operated in connection with steam power generation. (FERC website.) SCE adds that "it also includes credits for the use of station property at Mohave Generating Station by others." (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 55.)

[373] Exhibit No.: SCE-3, Vol. 7, page 81 and 83.

[374] The FERC and SCE define this account as including the cost of labor and expenses incurred in the general supervision and direction of maintenance of steam generation facilities. Direct field supervision of specific jobs shall be charged to the appropriate maintenance account. (FERC website.) (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 77.)

FERC Account # 511.013: Maintenance of structures.[376]

SCE used a 3-year average forecast (1996-98) for this account and excluded years 1999 and 2000 on the basis of these expenditure levels as being too low, because it anticipated divestiture; whereas ORA's contends that those years are more indicative of Mohave's potential future disposition.

According to ORA's 2-year average forecast the labor estimate becomes $471K and the non-labor estimate at $252K: representing a difference of $198K and $686K respectively.

FERC Account # 512.013: Maintenance of boiler plant.[377]

The recorded period indicates that Labor amounts decreased in 1997 due to Voluntary Retirement Offers (VRO); and then again in 1999-2000 due to reduced outage and reductions in staffing as a result of the pending sale of Mohave through attrition, reassignments, lay offs, and reduced work scope.[378] The non-labor historical amounts indicate increased boiler and other repairs in 1996 and in 1998.[379]

SCE used a 3-year average forecast (1996-98) for this account and excluded years 1999 and 2000 on the basis of these expenditure levels as being too low, because it anticipated divestiture.

On the other hand, ORA identifies year 1999 and 2000 as more indicative of Mohave's potential future disposition.

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[375] DR-ORA-075, question #12.
[376] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in the maintenance of steam structures. (FERC website.) (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 109.)
[377] The FERC defines this account as including the cost of labor, materials used and expenses incurred in the maintenance of steam plant. (FERC website.) In addition, SCE clarifies that "for the purpose of making charges hereto and to account 513, Maintenance of Electric Plant, the point of which steam plant is distinguished from electric plant is defined as follows: 1) inlet flange throttle valve on prime mover. 2) Flange of all steam extraction lines on prime mover. 3) Hotwell pump outlet on condensate lines. 4) Inlet flange of all turbine room auxiliaries. 5) Connection to the line side of motor starter for all boiler-plant equipment." (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 141.)
[378] Exhibit No.: SCE-3, Vol. 7, page 99.
[379] Exhibit No.: SCE-3, Vol. 7, page 100.

Thus, ORA's 2-year average for labor and non-labor result in estimates of $5,613K and $2,546K respectively: and a discrepancy of $1,239K and $1,550K from SCE's estimates.

FERC Account # 513.013: Maintenance of electric plant.[380]

SCE used a 3-year average forecast (1996-98) for this account and excluded years 1999 and 2000 on the basis of these expenditure levels as being too low, because it anticipated divestiture.

As previously explained ORA opted for a 2-year average (1999-2000). This brings the labor estimate to $1,137K and non-labor at $1,466K. This represents a difference of $395K for labor, $168K for non-labor and a total difference of $564K from SCE's estimate.

FERC Account # 514.013: Maintenance of Miscellaneous steam plant.[381]

SCE used a 3-year average forecast (1996-98) for this account and excluded years 1999 and 2000 on the basis of these expenditure levels as being too low, because it anticipated divestiture.

As previously explained ORA opted for a 2-year average (1999-2000). This brings the labor estimate to $176K and non-labor at $269K. This represents an increase of $30K for labor, a decrease of $228K for non-labor, and a total difference of $198K from SCE's estimate.

II. FOUR CORNERS

The operating agent for this power plant, located in New Mexico, is Arizona Public Service (APS). As described in its testimony, SCE owns a 48% share of coal-fired

[380] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in the maintenance of electric plant. (FERC website.) (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 177.)

[381] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in maintenance of miscellaneous steam generation plant. (FERC website.) (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 209.)

Units 4 and 5, in addition to "32% interest in the plants' 500 kV transformer and 12% interest in its 345 kV switchyard; 48% of the 345-500 kV transformer and the connection to the reserve auxiliary power source; 3.465 of the reserve auxiliary power source; and 43.20% of the connections to the 345 kv switchyard facilities."[382]

SCE used a 5-year average in determining its forecast for Four Corners and observed that:[383]

> (The) recorded data were skewed due to the cyclical nature of expenditures at Four Corners Generating Station. APS performs generating unit overhauls at fixed intervals, and the overhaul in 2000 creates the false impression of an upward trend in Accounts 511.015 through 514.015. Our approach to estimating Four Corner's O&M expenses, which is based on a five-year average of recorded expenses, normalizes such year-to-year variations.

ORA accepts SCE's 5-year forecasting methodology in its Operations FERC Accounts 500.15 through 507.015, because recorded expenditures (1996-2000) have been constant.

However, ORA proposes that a 3-year average (1997-1999) be adopted for the Maintenance FERC Accounts 510.015 through 514.015. As indicated in SCE's quote above, year 2000 indicates substantial increases in maintenance costs as a result of a major overhaul. And SCE further elaborates that:[384]

> In 1996 and 2000, major unit overhauls were conducted at Four Corners resulting in higher maintenance costs in those years. The increased overhaul costs at Four Corners in 2000 were partially offset by lower than normal overhaul costs at Mohave. Except for major overhauls at Four Corners planned for 2002 and 2006, future expenditures are expected to remain relatively stable within the historical average range.

This indicates that the next major outage for Four Corners will be in 2006 and therefore will not impact this Test Year. Thus, a 5-year average, as proposed by SCE for these FERC accounts, are not reflective of maintenance costs to be incurred during non-major overhaul periods, such as years 1997 through 1999. Consequently, a 3-year average was selected in capturing these year-to-year variations.

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[382] Exhibit No.: SCE-3, Vol. 7, page 10, Footnote # 6.
[383] Exhibit No.: SCE-3, Vol. 7, page 43, lines 4-9.

Account by Account Analysis – Four Corners[385]

FERC Account # 500.15: Operation supervision and engineering.[386]

As in all other Four Corners accounts SCE has selected a 5-year average for this FERC Account in that it represents " the same activities in the test year as…performed in the recorded years."[387] SCE elaborates that:[388]

> In 2000 some operations labor was redirected from Account 500.015 to various maintenance accounts, to support the major overhaul outage on Four Corners Unit 4 that year. Also the *Supervisory Load* (Arizona Public Service Company's term for what SCE calls *Allocated Overhead*) recorded in Account 500.015 was lower in 2000 because it allocated in greater proportion to maintenance accounts due to the outage… (SCE continues by saying)…The decrease observed in Account 500.015, if looked at in isolation, appears to indicate reduced O&M requirements. However, when we look at the reason for the reduction, we find that it was caused by a temporary reallocation of resources to maintenance activities. By averaging in the reduction to Account 500.015 and also averaging the increase found in the other maintenance accounts we equally capture the offsets and increases in the data. When the results are averaged, this variation has no net impact on the forecast. Thus each year is equally representative when costs are averaged and the same method is applied to all accounts.

As previously elaborated, ORA's approach in determining the methodology to be used differs between Operations and Maintenance FERC Accounts for Four Corners. Thus, ORA agrees with SCE's use of a 5-year average aimed at capturing the cyclical variations under this account. There are no changes to be recommended for this account.

FERC Account # 501.15: Fuel.[389]

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[384] Exhibit No.: SCE-3, Vol. 7, page 29, lines 2-7.
[385] There is only on FERC Account # 500.013 with labor and non-labor estimates; the rest of the Four Corners' FERC Accounts have only non-labor estimates.
[386] The FERC defines this account as including the cost of labor and expenses incurred in the general supervision and direction of the operation of steam power generating stations. (FERC website.) SCE adds to this definition the following: "Direct supervision of specific activities, such as fuel handling, boiler room operations, generator operations, etc., shall be charged to the appropriate account." (Workpapers, SCE-3, Vol. 7, Part 1 of 2, page 1.)
[387] Exhibit No.: SCE-3, Vol. 7, page 65, lines 7-8.
[388] DR-ORA-075, question #3 a) and 3 b).
[389] The FERC defines this account as including the cost of fuel used in the production of steam for the generation of electricity, including expenses in unloading fuel from the shipping media and handling thereof up to the point where the fuel enters the first boiler plant bunker, hopper, bucket, tank or holder of the boiler-house structure. Records shall be maintained to show the quantity, B.t.u. content and cost of each type of fuel used. (FERC website.) SCE explains that "for SCE's General Rate Case application this

As in all other Four Corners accounts SCE has selected a 5-year average for this FERC Account in that it represents " the same activities in the test year as…performed in the recorded years."[390] The last recorded year (2000) was the lowest compared to previous years, because "residual waste disposal (ash hauls) and coal handling expense was approximately $280,000 lower in 2000 because one unit was off-line and not burning coal during a major overhaul compared to minor outages in 1999."[391]

ORA also selected a 5-year average in order to smooth out cyclical variations under this account. There are no changes to be recommended for this account.

FERC Account # 502.15: Steam expenses.[392]

As in all other Four Corners accounts SCE has selected a 5-year average for this FERC Account in that it represents " the same activities in the test year as…performed in the recorded years."[393] ORA also selected a 5-year average in order to smooth out cyclical variations under this account. There are no changes to be recommended for this account.

FERC Account # 505.15: Electric expenses.[394]

As in all other Four Corners accounts SCE has selected a 5-year average for this FERC Account, because expenditures "in each year from 1996 to 2000 is equally

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account does not include the cost of fuel used in the production of steam for the generation of electricity. However, it does include "…expenses in unloading fuel from the shipping media and handling thereof up to the point where the fuel enters the first boiler plant bunker, hopper, bucket, tank or holder of the boiler-house structure." Additionally, it includes the handling and disposal expense for residual ash and proceeds from the sale of fly ash. In the case of Mohave Generating Station, it also includes the operation and maintenance expense for the Coal Slurry, receiving, handling, dewatering, storage, and reslurry equipment unique to Mohave fuel system." (Workpapers, SCE-3, Vol. 7, Part 1 of 2, page 30.)

[390] Exhibit No.: SCE-3, Vol. 7, page 65, lines 7-8.

[391] DR-ORA-075, question #6.

[392] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in production of steam for electric generation. This includes all expenses of handling and preparing fuel beginning at the point where the fuel enters the first boiler plant bunker, hopper, tank or holder of the boiler-house structure. (FERC website.) (Workpapers, SCE-3, Vol. 7, Part 1 of 2, page 72.)

[393] Exhibit No.: SCE-3, Vol. 7, page 65, lines 7-8.

[394] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in operating prime movers, generators, and their auxiliary apparatus, switch gear and other electric equipment to the points where electricity leaves for conversion for transmission or distribution. (FERC website.) (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 12.)

representative of anticipated test year expense."[395] ORA also selected a 5-year average since expenditures under this account have been constant for the recorded period (1996-2000). There are no changes to be recommended for this account.

FERC Account # 506.15: Miscellaneous steam power expenses.[396]

SCE has been consistent in its use of a 5-year average for all Four Corners FERC Accounts, including this account. ORA also selected a 5-year average in order to smooth out cyclical variations under this account. However, Y2K amounts of $87K for 1999 were removed from the averaging.[397] This brings the non-labor estimate for this account to $2,264, which is a difference of $18K from SCE's estimate.

FERC Accounts # 507.15: Rents.[398]

SCE has been consistent in its use of a 5-year average for all Four Corners FERC Accounts, including this account. According to SCE's testimony the amount cited under this FERC account is "contractually" based and costs have been constant from 1996 through 2000. ORA agrees with SCE's forecast and no changes are recommended.

FERC Account # 510.15: Maintenance supervision and engineering.[399]

SCE has been consistent in its use of a 5-year average for all Four Corners FERC Accounts, including this account.

However, ORA proposes that a 3-year average (1997-1999) be used in order to reflect costs associated with periods without a major overhaul.

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[395] Exhibit No.: SCE-3, Vol. 7, page 75, lines 4-5.
[396] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred which are not specifically provided for or are not readily assignable to other steam generation operation expense accounts. (FERC website.) (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 44)
[397] DR-ORA-149.
[398] The FERC defines this account as including all rents of property of others used, occupied or operated in connection with steam power generation. (FERC website.) SCE adds that "it also includes credits for the use of station property at Mohave Generating Station by others." (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 55.)
[399] The FERC and SCE define this account as including the cost of labor and expenses incurred in the general supervision and direction of maintenance of steam generation facilities. Direct field supervision of specific jobs shall be charged to the appropriate maintenance account. (FERC website.) (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 77.)

Consequently, the forecast for this account changes to $643K, which represents an increase of $67K from SCE's estimate.

FERC Account # 511.15: Maintenance of structures.[400]

SCE has been consistent in its use of a 5-year average for all Four Corners FERC Accounts, including this account.

As stated previously, ORA proposes that a 3-year average (1997-1999) be used in order to reflect costs associated with periods without a major overhaul. Thus, the forecast for this account changes to $406K, which represents a difference of $21K from SCE's estimate.

FERC Account # 512.15: Maintenance of boiler plant.[401]

SCE has been consistent in its use of a 5-year average for all the Four Corners FERC Accounts, including this account. However, ORA proposes that a 3-year average (1997-1999) be used in order to reflect costs associated with periods without a major overhaul.

Consequently, the forecast for this account changes to $6,433K, which represents a difference of $1,261K from SCE's estimate.

FERC Account # 513.15: Maintenance of electric plant.[402]

SCE has been consistent in its use of a 5-year average for the Operations FERC Accounts, including this account.

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[400] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in the maintenance of steam structures. (FERC website.) (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 109.)

[401] The FERC defines this account as including the cost of labor, materials used and expenses incurred in the maintenance of steam plant. (FERC website.) In addition, SCE clarifies that "for the purpose of making charges hereto and to account 513, Maintenance of Electric Plant, the point of which steam plant is distinguished from electric plant is defined as follows: 1) inlet flange throttle valve on prime mover. 2) Flange of all steam extraction lines on prime mover. 3) Hotwell pump outlet on condensate lines. 4) Inlet flange of all turbine room auxiliaries. 5) Connection to the line side of motor starter for all boiler-plant equipment." (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 141.)

[402] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in the maintenance of electric plant. (FERC website.) (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 177.)

On the other hand, ORA proposes that a 3-year average (1997-1999) should be used in order to reflect costs associated with periods without a major overhaul. This changes the forecast for this account to $934K, which represents a difference of $708K from SCE's estimate.

FERC Account # 514.15: Maintenance of Miscellaneous steam plant.[403]

SCE has been consistent in its use of a 5-year average for all Four Corners FERC Accounts, including this account.

However, ORA proposes that a 3-year average (1997-1999) be used in order to reflect costs associated with periods without a major overhaul. Consequently, the forecast for this account changes to $1,578K, which represents an increase of $461K from SCE's estimate.

III. CONCLUSIONS

On the basis of various methodologies adopted, ORA's forecast for:

- Mohave changes to $24,661K, which represents a reduction of 19% from SCE's estimate;
- Four Corners changes to $20,798K, which represents a reduction of 10% from SCE's estimate.

[403] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in maintenance of miscellaneous steam generation plant. (FERC website.) (Workpapers, SCE-3, Vol. 7, Part 2 of 2, page 209.)

The following Tables illustrate a comparison between SCE's and ORA's O&M estimates for Mohave and Four Corners:

MOHAVE O&M
(CONSTANT 2000$ X 1000)

FERC Account #	SCE	ORA	SCE exceeds ORA by:
500.013	769	706	63
501.013	1,178	509	669
502.013	2,846	2,409	437
505.013	1,569	1,539	30
506.013	6,044	5,738	306
507.013	(54)	(54)	-
510.013	1,918	1,884	34
511.013	1,606	723	883
512.013	10,948	8,160	2,788
513.013	3,166	2,602	564
514.013	643	445	198
Total	30,633	24,661	5,972

DIFFERENCES IN FOUR CORNERS O&M ESTIMATES
(CONSTANT 2000$ X 1,000)

Maintenance FERC Accounts	SCE	ORA	SCE exceeds ORA by:
510.015	576	643	(67)
511.015	427	406	21
512.015	7,694	6,433	1,261
513.015	1,642	934	708
514.015	2,039	1,578	461
Total	12,378	9,994	2,384

CHAPTER 7-D

HYDROELECTRIC

I. ANALYSIS

ORA's review of relevant FERC Accounts under the Hydro section indicates that SCE's methodology used primarily relied on the Last Recorded Year (2000) in addition to various adjustments. Some of the reasons cited as a justification for selecting one method over another are to meet current staffing, increased maintenance and accounting changes.

There is a base estimate derived from routine O&M expenses and additional new maintenance programs. These new programs are deemed as necessary, because of aging facilities which require higher O&M costs. [404]

These new programs were included in FERC Accounts 542, 543 and 544 and consist of:

1. Penstock and flow line condition assessments and subsequent maintenance costs (Big Creek 8 in 2002 and Big Creek 2A in 2003.)[405]
2. Painting program is projected to be completed in 2007.[406]
3. Wicket Gate-Related maintenance is high-cost (wicket gates replacements are also mentioned with loss of generation value.)[407]
4. Continuation of buttress repairs for Florence Dam: Arches No. 46 through 58 to be completed in 2003.[408]

SCE's testimony also mentions there have been several changes in internal recording methods, which warranted the exclusion of 1996-1998 recorded costs from its estimates.[409] SCE's elaborates as follows:[410]

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[404] For example, "most of Big Creek plants have been in service since the early to mid-twentieth century, and some equipment is more than 80 years old." (See Exhibit No.: SCE-3, Vol. 9, page 5, lines 1-3.)
[405] See Exhibit No.: SCE-3, Vol. 9, page 18-19.
[406] See Exhibit No.: SCE-3, Vol. 9, page 20-22.
[407] See Exhibit No.: SCE-3, Vol. 9, page 23.
[408] See Exhibit No.: SCE-3, Vol. 9, page 24-25.
[409] "An adjustment aligning the 1996-1998 data for 1999 and future years is impractical due to the nature of allocations." See Exhibit No.: SCE-3, Vol. 9, page 33, Page 36, line 6-8.
[410] DR-ORA-069, question #1.

SCE's workpapers provide labor and non-labor expense for each Hydro O&M expense account. In addition, (SCE provided)…total Hydro O&M expenses, with labor and non-labor adjusted to reflect what the pieces would add up to if the individual functions and FERC Accounts could have been adjusted incrementally.

The changes in recording methods only changed which function and account some expenses were booked to and if it was recorded as labor or non-labor. The recording method changed did not change the total amount spent on operation and maintenance.

Furthermore, a table in Appendix C indicates that:[411]

The restated Recorded/Adjusted totals show what the comparable total Hydro Generation Labor/non-labor split would have been over the 1996 through 2000 period. The adjustment on the summary adds to total Hydro O&M labor the amount of labor that was recorded in the Overhead Clearing Account from the Field Divisions (before the allocation) and substracts an equal amount from the total non-labor.

As in nuclear, coal and other generation, ORA removed Y2K related expenses from Hydro O&M. These expenses are a one-time occurrence and do not reflect Test Year 2003 expenditures. This impacted minimally FERC Accounts # 535, 538, 539, 541, 542, and 544.[412]

Account by Account Analysis - Hydro

FERC Account # 535: Operation supervision and engineering.[413]

SCE selected the Last Recorded Year (2000) for its labor estimate and this was due to the addition of two Supervisors of Operation and Maintenance in 2000 under this account. SCE elaborates that: [414]

The two Supervisors of Operation and Maintenance (SOM) added in 2000 were added in the context that they began recording their time to Account 535 in 2000. Both were already Hydro Generation supervisors in 1999 but were

[411] DR-ORA-069, question #1.
[412] DR-ORA-149, question # 1.
[413] The FERC and SCE define this account as including the cost of labor and expenses incurred in the general supervision and direction of the operation of hydraulic power generating stations. Direct supervision of specific activities, such as hydraulic operation, generator operation, etc., shall be charged to the appropriate account. (FERC website.) (Workpapers, SCE-3, Vol. 9, Chapter IV &V, page 19.)
[414] DR-ORA-060, question #1.

reassigned new duties in 2000 as part of a reorganization of supervisory roles within their division.

In 1999 none of their labor expense was recorded to the account in question; FERC Account 535. Instead, their labor expense was distributed equally between FERC Accounts 539 and 541.

In 2000 their labor was primarily recorded in FERC Account 535 with approximately $4,000 distributed among FERC Accounts 539, 541, and 543.

The non-labor estimate was based on a 2-year average (1999-2000) in order to reflect year-to-year variations in "contracts issued for studies required to meet legal or regulatory requirements."[415]

Furthermore, FERC Account #535 has been subject to changes due to internal recording methods in 1998 and 1999. According to SCE:

> The changes referred to were the reclassifying of some supervision, engineering, and administrative expenses that originated at a Hydro Generation field division or generating station as a direct expense rather than an allocated overhead expense. When classified as an overhead, these expenses were booked to a clearing account and then allocated to the functions in most of the Hydro Generation series of FERC Accounts. Allocated expense is generally reported as a single line item, non-labor expense in the functions and accounts they allocate to…. The reason for the change was to provide better visibility of expenditures and simplify the accounting process. Documents supporting this change no longer exist: However, the change was primarily communicated verbally through meetings. Implementation was accomplished through coding changes within the accounting system."[416]

Y2K related expenses have been removed from FERC Account # 535 since these expenses are a one-time occurrence and do not reflect Test Year 2003 estimate.[417]

ORA accepts SCE's methodology used for the estimation of this FERC Account. However, after removing Y2K related expenses the labor Test Year estimate becomes $1,558K, which is a difference of $6K from SCE's estimate.

FERC Account # 536: Water for power.[418]

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[415] Exhibit No.: SCE-3, Vol. 9, page 42, lines 7-8.
[416] DR-ORA-060, question #3.

For this account SCE selected a 5-year average for its Total Test Year estimate. This estimate consists of only a non-labor amount, which primarily captures varying annual fees due to the FERC.

ORA agrees with the estimates recommended by SCE for this account.

FERC Account # 537: Hydraulic expenses.[419]

SCE selected the Last Recorded Year (2000) for both its labor and non-labor estimates under this account. This methodology allows for expenditures in labor to meet current staffing levels; and for non-labor estimates to continue with dam failure monitoring systems.[420]

ORA agrees with the estimates recommended by SCE for this account.

FERC Account # 538: ELECTRIC EXPENSES.[421]

SCE selected the Last Recorded Year (2000) as its labor and non-labor estimates. These estimates meet current staffing and incorporate internal recording changes.[422]

ORA agrees with SCE's estimate for this account, with the exception of Y2K removal.[423]

FERC Account # 539: Miscellaneous hydraulic power generation expenses.[424]

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[417] DR-ORA-149, question #1.
[418] The FERC and SCE define this account as including the cost of water used for hydraulic power generation. (FERC website.) (Workpapers, SCE-3, Vol. 9, Chapter IV &V, page 34.)
[419] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in operating hydraulic works including reservoirs, dams, and waterways, and in activities directly relating to the hydroelectric development outside the generating station. It shall also include the cost of labor, materials used and other expenses incurred in connection with the operation of (a) fish and wildlife, and (b) recreation facilities. (FERC website.) (Workpapers, SCE-3, Vol. 9, Chapter IV &V, page 45.)
[420] Workpapers SCE-3, Vol. 9, Chapter IV &V, page 48.
[421] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in operating prime movers, generators, and their auxiliary apparatus, switchgear, and other electric equipment, to the point where electricity leaves for conversion for transmission or distribution. (FERC website.) (Workpapers, SCE-3, Vol. 9, Chapter IV &V, page 56.)
[422] Workpapers SCE-3, Vol. 9, Chapter IV &V, page 59.
[423] DR-ORA-149, question #1.
[424] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred which are not specifically provided for or are not readily assignable to other hydraulic generation operation expense accounts. (FERC website.) (Workpapers, SCE-3, Vol. 9, Chapter IV &V, page 67.)

SCE selected the Last Recorded Year (2000) as its labor estimate in order to meet current staffing and incorporate internal recording changes.[425] ORA agrees with this estimate.

However, for the 2-year average (1999-2000) selected for the non-labor estimate SCE does not provide sufficient information other than:[426]

> The non-labor expenses vary from year to year due to the large variety of activities contained in this account. The 2000 recorded was not representative for this activity and those not provide the level of funding required for future operations.

In addition to the workpapers, ORA reviewed SCE's testimony and found no further elaboration on the non-labor estimate. Thus, ORA recommends the use of the Last Recorded Year (2000) for non-labor. ORA also removed one-time Y2K expenses and regulatory penalties associated to this FERC Account. [427]

This reduced the non-labor to $3,335K, which is a difference of $187K from SCE's estimate.

FERC Account # 540: Rents.[428]

This account reflects costs associated with annual fees due to the FERC. The recorded period (1996-2000) indicates that the expenditures under this account have been constant. ORA agrees with SCE's selection of the Last Recorded Year (2000) as its estimate.

FERC Account # 541: Maintenance supervision and engineering.[429]

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[425] Workpapers SCE-3, Vol. 9, Chapter IV &V, page 70.
[426] Workpapers SCE-3, Vol. 9, Chapter IV &V, page 70.
[427] See DR-ORA-149, question #1 on Y2K expenses; and see DR-ORA-189 on penalties issued by San Joaquin Valley Unified Air Pollution Contral District.
[428] The FERC and SCE define this account as including all rents of property of others used, occupied or operated in connection with hydraulic power generation, including amounts payable to the United States for the occupancy of public lands and reservations for reservoirs, dams, flumes, forebays, penstocks, power houses, etc., but not including transmission right of way. (FERC website.) (Workpapers, SCE-3, Vol. 9, Chapter IV &V, page 82.)
[429] The FERC and SCE define this account as including the cost of labor and expenses incurred in the general supervision and direction of the maintenance of hydraulic power generating stations. (FERC website.) (Workpapers, SCE-3, Vol. 9, Chapter IV &V, page 94.)

SCE selects the Last Recorded Year (2000) for the labor estimate in that it accounts for the two Supervisors of Operation and Maintenance, as previously explained in FERC Account # 535.

The Non-Labor estimate was based on a 2-year average (1999-2000). However, SCE did not elaborate on the reason for selecting this methodology. There is only a mention of fewer contracts for engineering work as the cause for the decrease in the non-labor recorded amounts from 1999 to 2000.[430]

ORA agrees with SCE's labor estimate. However, SCE's testimony and workpapers do not support its use of a 2-year average. ORA recommends the Last Recorded Year (2000) as the non-labor estimate and one-time Y2K related expenses have been removed.[431]

Thus, the forecast for this account is as follows: $1,226K for labor, $292K for non-labor. This represents a total difference of $111K from SCE's estimate.

FERC Account # 542: Maintenance of structures.[432]

SCE selected the Last Recorded Year (2000) for the labor estimate in order to meet current staffing levels and incorporating internal recording changes. This labor estimate represents an increase of almost 8% over the 5-year average (1996-2000).

SCE's non-labor estimate is based on the Last Recorded Year (2000) with adjustments related to the stepped-up maintenance program, and specific to this FERC Account is a *Painting Program*. This non-labor estimate represents an increase of 80% from the Last Recorded Year (2000) and an increase of 179% from its 5-year average (1996-2000).

As stated in the testimony SCE expects to complete the painting program by 2007. SCE explains that:[433]

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[430] Exhibit No.: SCE-3, Vol. 9, page 61, 6-9.
[431] DR-ORA-149, question #1.
[432] The FERC and SCE define this account as including the cost of labor, materials used, and expenses incurred in maintenance of hydraulic structures. (However, the cost of labor, materials used and expenses incurred in the maintenance of fish and wildlife, and recreation facilities, Structures and Improvements, shall be charged to Account 545, Maintenance of Miscellaneous Hydraulic Plant.) (FERC website.) (Workpapers, SCE-3, Vol. 9, Chapter IV &V, page 133.)

> The estimated costs of painting the powerhouse and penstock structures in the Big Creek Project were obtained from a qualified painting and lead abatement estimator… The work was scheduled out over the next 6 years (2002 through 2007), based on the paint condition of each structure. The total estimated is $6,297,895, which averages out to $1,049,649 per year, which was rounded up to $1,200,000, for budgeting purposes.

SCE admits that: "we have not painted most of the powerhouses, flow lines, penstocks and generation equipment at Big Creek for over 20 years. Our recent cost containment initiatives have stretched this cycle of maintenance to its limit."[434]

These cost containment initiatives are explained by SCE through "an overview of the planning process and considerations applied to maintenance project candidates by SCE's Hydro Generation Division":[435]

> All potential major expense projects undergo internal scrutiny by way of a prioritization system. A five-year expense project plan is kept where all projects are assigned a year for implementation based upon the combination of priority, outage, availability, and readiness for implementation. Projects are also classed into those being "discretionary and non-discretionary". "Non-discretionary" projects are those that must be implemented due either to regulatory mandate or eminent safety hazard. As unplanned projects come into existence, they are assigned a priority number, which is then matched up against those projects already on the five-year plan. Also, non-discretionary projects are given much higher priority than discretionary projects. A higher priority project can, and often does, displace a lower priority project. A displaced project will either be forced below the cutoff line for a particular year or assigned to another year.
>
> During the mid and late 1990's, painting projects were typically assigned a "Low Risk: Conditions are below standard and should be improved in the next 5 years" rating which is the lowest priority rating. In addition, these projects were also discretionary. So typically, when new projects came into existence, these painting projects were the first to be reassigned below the line or to another year. In any given year it is not unusual to have unexpected projects or cost overruns of fairly significant magnitude displace these painting projects. Some examples of these unexpected type of projects are the Portal Powerhouse Electrical Fire, the Big Creek 2A Unit 1 Shaft Repair Project, the Big Creek No. 8 220 KV Circuit Breaker Repairs, the January 2, 1997 Flood Repairs, and many others.
>
> At this time the painting projects have moved from the discretionary to non-discretionary status because of emerging lead-based paint issues and the

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[433] DR-ORA-065, question #6.
[434] Exhibit No.: SCE-3, Vol. 9, page 20, 2-4.
[435] DR-ORA-065, question #1.

increasing need to prevent additional rust, corrosion, or deterioration of structures and equipment.

ORA appreciates SCE's disclosure for the critical need of this painting program, and the explanation provided above highlights on the project approval process. However, SCE fails to indicate why a more modest maintenance program, in terms of cost and scope, was not implemented and spread over the past 20 years. Furthermore, SCE's estimates associated with the painting for powerhouses, equipment and buildings under this painting program of $767K.[436] This represents a 78% increase from the Last Recorded Year (2000) amount for this account, and a 121% increase from the 5-year average (1996-2000).

ORA contends that ratepayers should not bear full responsibility for this increase vis-à-vis SCE's management decision to omit these expenditures in the past. Since this program is expected to be completed in the next five (5) years, ORA recommends that the increment of $767K should be spread over a five-year period. This limits the painting program estimate to $154K, which represents an increase of 16% from the Last Recorded Year (2000) amount for this account, and a 24% increase from the 5-year average (1996-2000).

ORA accepts SCE's forecast for the labor estimate.[437] However, the non-labor amount was recalculated to account for the change in costs associated with the painting program as an incremental to the Last Recorded Year amount.[438]

Thus, the Test Year labor estimate changes to $334K and a non-labor estimate of $1,135K. Thus the total estimate of $1,469 represents a difference of $635K from SCE's estimate.

FERC Account # 543: Maintenance of reservoirs, dams, and waterways.[439]

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[436] DR-ORA-065, question # 3.
[437] In addition, minor Y2K amount have been removed from FERC Account # 542. (See DR-ORA-149, question #1.)
[438] In addition, minor Y2K amount have been removed from FERC Account # 542. (See DR-ORA-149, question #1.)
[439] The FERC and SCE define this account as including the cost of labor, materials used, and expenses incurred in maintenance of plant. (However, the cost of labor materials used and expenses incurred in the maintenance of fish and wildlife, and recreation facilities, Reservoirs, Dams and Waterways, shall be

This account indicates that labor costs have been fairly constant over the 1996-2000 period. SCE selected the Last Recorded Year (2000) for its labor estimate on the basis that it meets current staffing, operating and internal reporting practices.[440] ORA accepts SCE's labor estimate.

However, SCE's non-labor estimate represents an increase of 76% from the Last Recorded Year (2000) and an increase of 98% from the 5-year average (19996-2000). In terms of its non-labor estimate, SCE used the Last Recorded Year (2000) and the following increments:

1) Penstock and flowline condition assessment at $100K;
2) Painting of penstocks and flowlines at $413K; and
3) Florence Dam buttress repairs at $800K.

Regarding the Penstock and flowline condition assessment, ORA found out that there was only one contractor selected to undertake the Penstock Life Assessments and therefore there was no competitive bidding involved.[441] The purchase order for this assessment is quoted at around $60K. However, SCE testimony requests $100K for this assessment. This means that there is a discrepancy of $40K. ORA removed this amount to reflect the amount stated in the purchase order.

The painting of penstocks and flowlines is part of the "painting program" described in FERC Account # 542. Following ORA's recommendation for costs associated with the paint program, FERC Account # 543 should be spread over a 5-year period. This reduces this estimate to $83K.

The Florence Dam Buttress repairs are also included in this FERC Account. SCE states that routine repairs to the buttresses were initiated in the late 1980s, with an interruption after 1996 to assess the need for a seismic retrofit to the entire dam. Since such a retrofit is no longer necessary, SCE plans to continue with the buttress repairs that are expected to be completed in 2003.[442]

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charged to Account 545, Maintenance of Miscellaneous Hydraulic Plant.) (FERC website.) (Workpapers, SCE-3, Vol. 9, Chapter IV &V, page 147.)

[440] Workpapers, SCE-3, Vol. 9, Chapter IV &V, page 150.

[441] DR-ORA-065, question #4.

[442] Exhibit No.: SCE-3, Vol. 9, page 24-25.

ORA's review for this request was severely limited by the fact that there is no assessment report for these repairs and SCE's estimate is based solely on an "SCE Civil Engineer who has first hand experience with similar work at the same location prepared the conceptual estimate utilizing unit pricing for scaffolding and Gunite application."[443] According to the workpapers SCE's engineer estimates the annual repair cost at $740K and then SCE added about 8% of total project cost in overhead and profit.[444] With such scant information available, ORA proposes the removal of costs associated with Florence Dam Buttress repairs.

Thus, ORA's Test Year non-labor estimate changes to $1,861K, which represents a difference of $1,170 K from SCE's estimate.

FERC Account # 544: Maintenance of electric plant.[445]

SCE selected the Last Recorded Year (2000) for its labor estimate on the basis that it meets current staffing, operating and internal reporting practices.[446] ORA agrees with SCE's labor cost estimation, which represents a decrease from 3, 4 and 5 year averages and still meets requirements under this FERC Account.

SCE's non-labor consists of the Last Recorded Year (2000) and an incremental adjustment of $227K associated with the stepped-up maintenance to the wicket gates.

The methodology used to estimate wicket gates maintenance is explained as follows:[447]

> First, the cost of manufacturing the wicket gates was determined based on competitive bids received in 2000… The labor costs for the installation of the wicket gates and associated parts were then estimated based on prior work on this unit. The estimates for the costs of manufacturing and installing wicket gates on Big Creek No.3 Unit 2 were derived from the costs of the work for Big Creek No. 8 Unit 2. The sizes of the wicket gates of these units are similar. The costs for the Mammoth Pool Unit 2 work were scaled based on the size and complexity of the unit. Although there is no capital component in the Mammoth Pool project, the

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[443] DR-ORA-068, question #1.
[444] Workpapers, SCE-3, Vol. 9, Chapter IV &V, page 17.
[445] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in maintenance of plant. (FERC website.) (Workpapers, SCE-3, Vol. 9, Chapter IV &V, page 108.)
[446] Workpapers, SCE-3, Vol. 9, Chapter IV &V, page 111.
[447] DR-ORA-064, question #1.

costs are still significant due to the disassembly and reassembly characteristics of the unit.

In addition, SCE presents an outline on the capital and expense costs for each project in the following table:[448]

WICKET GATES CAPITAL AND O&M EXPENDITURES

PROJECT	YEAR	CAPITAL	EXPENSE	TOTAL
BIG CREEK 8 U2	2001	$140,000	$345,000	$485,000
MAMMOTH POOL U2	2002	NONE	$411,000	$411,000
BIG CREEK 3 U2	2003	$275,000	$227,000	$502,000

ORA agrees with SCE's non-labor estimate. No changes are recommended for this account.

FERC Account # 545: Maintenance of Miscellaneous hydraulic plant.[449]

SCE selected Last Recorded Year (2000) for its labor and non-labor estimates. These levels allow SCE to meet current staffing, operating and internal reporting practices in labor; and to continue with the stepped-up maintenance program for non-labor, which includes a "multiple-year program of road repair."[450]

ORA agrees with SCE's labor and non-labor estimates, which represent a decrease from 3, 4 and 5 year averages and still meet requirements under this FERC Account.

CONCLUSIONS

According to ORA's methodology the total Hydro estimate has been reduced by $2,110K. This represents a reduction of 7% from SCE's estimate for Test Year 2003.

[448] DR-ORA-064, question #1.
[449] The FERC and SCE define this account as including the cost of labor, materials used, and expenses incurred in maintenance of plant. (Workpapers, SCE-3, Vol. 9, Chapter IV &V, page 122.)
[450] Workpapers, SCE-3, Vol. 9, Chapter IV &V, page 125.

The following Table presents a comparison of SCE's and ORA's estimates for Hydroelectric Operations & Maintenance:

HYDRO O&M Estimates

(Constant 2000 $000)

FERC Account #	SCE	ORA	Difference
535	1,564	1,558	6
536	2,885	2,885	-
537	1,678	1,678	-
538	2,353	2,352	1
539	5,368	5,181	187
540	836	836	-
541	1,629	1,518	111
542	2,104	1,469	635
543	3,868	2,698	1,170
544	3,976	3,976	-
545	1,510	1,510	-
TOTAL HYDRO	27,771	25,661	2,110

CHAPTER 7-E

OTHER GENERATION

II. ANALYSIS

Other Generation Expenses refer to Southern California Edison's Pebbly Beach Generating Station, which serves 1,800 residential and 500 commercial customers in Santa Catalina Island.

SCE is requesting consideration for expenses associated with operations and maintenance at Pebbly Beach Generating Station.[451] There are only three (3) FERC Accounts impacted and these are FERC Accounts # 548, 549 and 553. SCE is requesting a total of $ 1,518K for Test Year 2003.

Historical/recorded expenditures indicate that SCE's request under Other Generation is comparable to the 5-year average (1996-2000). ORA agrees with SCE's Other Generation Test Year estimates for all the above-mentioned FERC Accounts.

Account by Account Analysis – Other Generation

FERC Account # 548: Generation expenses.[452]

SCE used a budget-based method to determine labor and non-labor estimates for this account.

There are two (2) historical adjustments made: [453]

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[451] FERC Accounts associated with gas/oiled fueled generation units were included in Workpapers entitled "Divested Generation and Purchased Power". (Workpapers SCE-3, Vol. 10, Part 2 of 2.) However, SCE clarifies in a footnote in its Coal O&M testimony that: "We have removed recorded expense data from the 34 gas/oil-fueled generation units previously owned by SCE from the recorded data in these accounts. Those costs are not part of the recorded or estimated expenses shown in this case." (Workpapers, SCE-3, Vol. 7, Coal O&M, Part 1 of 2, page 41, footnote # 22.)

[452] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in operating prime movers, generators and electric equipment in other power generating stations, to the point where electricity leaves for conversion for transmission or distribution. (FERC website.) (Workpapers SCE-3, Vol. 10, Part 1 of 2, page 23.)

[453] Exhibit No: SCE-3, Vol. 10, Other Generation page 3.

1) Expenditures previously recorded in FERC Account 546 were transferred to this account in order to consolidate operations activities; and
2) A correction of an accounting error.

SCE's total Test Year 2003 estimate under this FERC Account is comparable to the Last Recorded Year (2000) and the 5-year average (1999-2000).

ORA agrees with SCE's estimates for this account.

FERC Account # 549: Miscellaneous other power generation expenses.[454]

SCE used a budget-based method to determine labor and non-labor estimates for this account.

In its testimony SCE states that Unit 15 was out of service for six (6) months and caused an increase in 1997 due to higher emission fees.[455] SCE explains this increase as follows:[456]

> The increase in emission fees between 1996 and 1997 was $28,302, corresponding to an increase in NOx emissions of 64 tons due to Unit 15 being out of service. However, the emission fee increase only partially explains the increased expenses in this FERC account between 1996 and 1997. In addition to higher emission fees, SCE incurred repair costs on the emission control system and mandated software upgrade costs on the Continuous Emission Monitoring System(CEMS). These additional expenses totaled $152,000 in 1997. SCE will correct the testimony concerning FERC Account 549 in SCE-3, Volume 10, of our 2003 GRC Application to more accurately describe the basis for the increased expenses between 1996 and 1997.

ORA accepts SCE's forecast for this account.

FERC Account # 553: Maintenance of generating and electric equipment.[457]

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[454] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in the operation of other power generating stations which are not specifically provided for or are not readily assignable to other generation expense accounts. (FERC website.) (Workpapers SCE-3, Vol. 10, Part 1 of 2, page 37.)
[455] Exhibit No: SCE-3, Vol. 10, Other Generation pg. 7, lines 2-4.
[456] DR-ORA-094.
[457] The FERC and SCE define this account as including the cost of labor, materials used and expenses incurred in maintenance of plant. (FERC website.) (Workpapers SCE-3, Vol. 10, Part 1 of 2, page 73.)

SCE used a budget-based method to determine labor and non-labor estimates for this account.

There were two adjustments impacting this account: 1) the transfer of expenditures from FERC Accounts # 551, 552 and 554 into this account; and 2) a correction of an accounting error, which transferred a non-labor amount from this account to FERC Accounts # 548.

ORA accepts SCE's total estimate for this account.

CONCLUSIONS

There are no changes recommended for the Other Generation O&M 2003 forecast.

APPENDICES

APPENDIX A[458]

SITE PROJECTS DESCRIPTIONS

1996 – 2000 SITE PROJECTS:

EPRI Project Work Tasks – Electric Power Research Institute (EPRI) base fees and participation in selected programs/tasks related to the nuclear industry. A list of selected programs/tasks was provided in response to DR 011.

High Range Radiation Monitor (AR960600430) –Installed moisture dams adjacent to the containment connectors at the detector and penetrations to prevent electrical failure. Installed cable shield jumpers to eliminate noise pickup, replace the field cables for one channel, and install Raychem heat shrink over the moisture dams and connectors. Lastly utilize spare CONAX penetrations with new feedthroughs for connecting to high range radiation monitors.

Ammonia Injection Valves (**AR 960601295, 960601333**) – Installed 4 new weldolets, ¾" isolation valves, and caps to be used as a connection point to the 4 steam lines to inject ammonia to reduce iron transfer and optimize Steam Generator life.

Post LOCA Hydrogen Monitor (**AR 971101304**) –Provided uninteruptable power source for the solenoid valves on the sample gas bottles of the Post-Loss of Coolant Accident (LOCA) Hydrogen Monitoring System. Upgraded the tubing runs outside the containment.

Diesel Generator Fuel Tank Liner (**AR 97070015**) – Vendor upgraded the interior liner coating of 4 Diesel Generator Fuel Tanks, installed a wear plate on each tank, and installed 6 ground wells for leak detection with remote sample monitoring to comply with new regulations for underground storage tanks.

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[458] SCE's attachment to DR-ORA-045, question #1.

Shutdown Cooling Inverter Modification (**AR 980801647**) – Provide AC power to the shutdown cooling motor operated valves through a set of transfer switches in a cabinet to resolve history of blowing DC fuses.

Offsite Private Fuel Storage – Participation in the initial phase of the Skull Valley Temporary used fuel storage project.

Year 2000 (Y2K) Deferred projects – Ensuring that all plant computer systems and components were free of the Y2K anomaly was of utmost importance. Accordingly, the Nuclear Organization reprioritized workloads and deferred non-essential, non-safety related work due to limited resources. The deferred tasks created backlogs that had to be "worked off" in future years. This "project" reflects the recorded costs to account for the work that was deferred because of Y2K.

Boric Acid Project (**AR 970900888**) – To support Steam Generator water chemistry needs, a temporary Boric Acid Treatment (BAT) skid was developed and installed while the permanent BAT system was being designed and manufactured.

Control Room Remodel – (**AR 970502031 / 970500272 / 970901460 / 971200499 / 980602804 / 980701813)** SCE remodeled the SONGS 2&3 Control Room to address habitability issues such as overcrowded conditions in the Control Room support offices, a general deterioration of the interior finishes, furniture and appliances, and significant changes in work processes. Project planning and material purchases occurred in advance of these ARs.

Plant Preservation (**AR 980400956 sample**) – SONGS embarked on an extensive preservation program to manage the rapid degradation that is occurring from exposure to salt air environment. This program inspects structures and equipment to determine the severity of rust and develops repair plans. The areas of the plant being repaired are now selected by the program instead of through individual ARs.

Waste Disposal (Paint Solids) – SCE is required to properly dispose of hazardous waste in accordance with Federal and California Regulations. SCE accumulated the paint solid waste until such time as an authorized and permitted Part B facility was licensed for both radioactive and hazardous waste (mixed waste) disposal. This Project provided for disposal of the paint solids at a newly opened facility.

M-Field & Fence Modifications (**AR 980901706, 000200905**) – This was a phased project to replace portions of the SONGS 2&3 Security Boundary Intrusion Detection with M-Field. The new system is more reliable and allows SCE to comply with NRC 10CFR73.55(g)(1) and Reg Guide 5.44. The areas of the perimeter that were converted to M-Field were the seawall, the switchyard and the west wall.

Compliance FCNs – OSRE Modifications (**AR 000800367**) –Installed fences and intruder delay barriers in support of newly developed risk assessments for the security target analysis. The modifications addressed tactical response plan changes in preparation for the Operational Safeguards Response Evaluation (OSRE) inspection.

CE Owners Group – Participation in an industry group that performs studies and analyzes issues pertaining to nuclear plants that have Combustion Engineering Nuclear Steam Supply System.

Rad Monitor Total Expense (**AR 970501675, 980601416, 980900686, 990201954**) – Addition of mechanical snubbers, electrical power filters, uninterruptible power source, and support software changes to radiation monitors

CATIA Computer Migration (**AR 990900935) -** CATIA is a computer system used to create design drawings at SONGS. The CATIA mainframe (host based) system became obsolete and was no longer supported by the manufacturer post-Year 2000. The data was migrated to an AIX-based System on an IBM RS-6000. This migration activity (1)

eliminated SONGS dependence on corporate resources, and (2) avoided problems due to lack of IBM support to the Mainframe configuration post Year 2000.

Miscellaneous Electrical Projects – Various projects.

Miscellaneous Mechanical Projects – Various projects.

Miscellaneous Vendor Projects – Various projects.

2001 – 2003 SITE PROJECTS:

FERC Account 517

EPRI Project Work Tasks – Electric Power Research Institute base fees and participation in selected programs/tasks related to the nuclear industry. A list of selected programs/tasks was provided in response to DR 011.

CE Owners Group - Participation in an industry group that performs studies and analyzes issues pertaining to nuclear plants that have Combustion Engineering Nuclear Steam Supply Systems.

Minor Human Factors / Safety Projects – Small plant modification projects required to ensure plant safety due to human performance issues.

Minor Compliance Projects – Small plant modification projects required to comply with regulations or the plant license.

Control Element Assembly Inspections and Analysis – Inspection of the Control Element Assemblies (CEAs) and purchase of a computer database program to analyze the inspection data to determine if the life of the existing CEAs can be extended, thus deferring purchase of replacement CEAs.

ESAR Programming (**AR 010900424)** – Replace the current manual system for Updated Final Safety Analysis Report (UFSAR) with a computerized system thereby increasing the efficiency of the Final Safety Analysis Report (FSAR) section owners.

Reactor Vessel Capsule Analysis – Analysis of the Reactor Vessel capsule required by 10 CFR 50, Appendix H, to determine brittleness of the reactor.

ISI Procedure Preps – Modification and preparation of procedures in support of work to be performed in upcoming outages to comply with the requirements for In Service Inspections (ISI).

M-Field – West Wall (**AR 980901706, 000200905**) – This was the final phase (west wall) of the project to replace portions of the SONGS 2&3 Security Boundary Intrusion Detection with M-Field. The new system is more reliable and allows SCE to comply with NRC 10CFR73.55(g)(1) and Reg Guide 5.44.

CCW Vent Line and Sight Glass Addition (**AR 990701248, 010400196**) – Extend the vent line of the Component Cooling Water(CCW) so that radiological hazardous conditions can be avoided when drawing air into the critical loop.

Topical Quality Assurance Manual (TQAM) Intrusion Detection System (IDS) Configuration Control (**AR 980702451**) – Perform walkdowns to verify various plant components are properly documented. Rewrite procedures, and perform drawing changes as necessary.

Cathodic Protection Phase I & II (**AR 990601374**) – SONGS uses cathodic protection to reduce the corrosion rate of structures and equipment that are in contact with soil and seawater. The cathodic protection system is approaching the end of its useful life and the danger of expensive corrosion to structure and equipment is increasing rapidly. This phased approach installed 8 wells, their associated anodes, and six test beds in 2001. Phase II will begin in 2003 and install the remaining 9 wells and their associated anodes.

Modifications as a result of Vulnerability Study (**AR 010301597, 020200785**) – Modifications to be done to reduce plant operability risk as experienced in the Unit 3 Loss of Lube Oil Event in February, 2001. Modification identified to date include: Modification of the power source for lube oil pumps from the D5 electrical bus to the D6 bus; Installation of a mechanical spray shield for cooling inlets of the 3 main lube oil

pump motors; and Split of the power source to the AC lube oil pumps between A03 and A07.

Plant Computer Software Upgrades (**AR 00BPL000**) – The current plant computer (mainframe) systems; Plant Monitoring System (PMS), COLSS Backup Computer System (CBCS), and Critical Functions Monitoring System (CFMS) are 15 to 20 years old. This multi year project replaces obsolete plant computers and software with current technology hardware and software in order to remain in compliance with NRC regulations.

2.206 Seismic Issue Calcs – (**AR 010800439**) - Analysis of new seismic information relative to the design basis/seismic characteristics of SONGS.

Steam Generator Replacement Studies - Conceptual studies to determine if current steam generator preservation techniques will allow them to reach their design lives.

Nuclear Safety Concerns Survey – SCE is required by the NRC's policy on establishing and Maintaining a Safety Conscious Work Environment (Federal Register: May 14, 1996 (Volume 61, Number 94 [Notices] Pages 24336-23340) to periodically assess the Nuclear Safety Culture and Safety Conscious Work Environment at SONGS. This project results in an independent survey of employees to satisfy the NRC requirement.

Procedures Conversion to Word – Conversion of plant procedures from WordPerfect to Word, the site supported word processing software.

Waste Water Treatment (WWT) Plant Refurbishment – This future project proposes refurbishing the WWT plant by recoating both sets of tanks, painting the infrastructure, and replacing associated piping and pumps due to the continuous harsh environmental conditions that it is subjected to.

Emergent Projects – Unforeseen projects that typically emerge as the year progresses.

FERC Account 532

Plant Preservation (**AR 980400956 sample**) – SONGS embarked on an extensive preservation program to manage the rapid degradation that is occurring from exposure to salt air environment. This program inspects structures and equipment to determine the severity of rust and develops repair plans. The areas of the plant being repaired are now selected by the program instead of through individual ARs. (Also, see next Appendix for more details on Plant Preservation.)

Auxiliary Feedwater Bypass Valve Actuator (**AR 980400169**) – Replacement of the actuators with a different type because current actuators were prone to oil and nitrogen leaks, which presented a compliance problem.

RCP Seal Rebuild Material Only (8) - Rebuild of Reactor Coolant Pump seals with a new design and new materials due obsolescence of the existing design.

Construct U3 Weld Shop – Increase the size of the weld shop and add 480V power. Details not yet available.

SRC Weld Shop Ventilation Additions - Add ventilation system to exhaust weld smoke to the outside of the building. Details not available yet.

Install K10 Weld Shop Electrical Outlets - Install 6 additional 480V weld receptacles in K10 shop. Details not yet available.

Fire System Chemical Cleaning (**AR 980900089**) – Chemical cleaning (other alternatives being studied) of the firewater system to address corrosion. Details not yet available.

Miscellaneous Projects – Various projects.

Emergent Projects – Unforeseen projects that typically emerge as the year progresses.

APPENDIX B

One of the most significant expenditures under the Site Projects is the Plant Preservation project, which SCE describes as follows:[459]

> The goal of the Plant Preservation Project is to bring existing structures, systems, and components exposed to salt air to a level of reliability that optimizes the economic life of such components relative to corrosion. All plant equipment (valves, pumps, tanks, fans, motors, piping, instrumentation racks, support structures, etc…) exposed to the salt air/moisture environment is inspected and assessed on a periodic basis to determine when it needs to be included in the Project. This is accomplished by comparing a current visual inspection for rust to a previous inspection and assessing the expected rate of material degradation. Areas that experience higher degradation are given priority.
>
> The proximity of San Onofre Nuclear Generating Station (SONGS) to the Pacific Ocean, the prevailing on-shore winds, and the minimal amount of rain to rinse away the salt deposits create a very aggressive, corrosive environment. This environment increases the rate of degradation of plant equipment surfaces and must be addressed in order to maintain the proper level of plant safety and reliability.
>
> The equipment preservation process includes:
>
> - Removing rust by grinding or cutting out affected areas
> - Replacing metal where needed
> - Painting the equipment with high performance epoxy paint
> - Sealing potential areas of water intrusion with caulking to prevent the migration and trapping of moisture
> - Replacing electrical conduit clamps, valve stems, and/or similar small components where warranted

[459] Data Request SET ORA-Verbal-16, question # 4.

- Resurfacing chipped/deteriorated concrete surfaces including rebar coating/replacement

As discussed in the testimony (SCE 3, Vol. 2, Ch VII, p 76) once an area meets rust grade standards, a caretaking mode is undertaken. The costs for these subsequent activities are recorded in the maintenance functional group.

APPENDIX C

Attachment to DR-ORA-069

Total of Hydro Generation Activities Group (FERC Accounts 535 through 545)

	1996	1997	1998	1999	2000
FERC Form 1 Recorded (Nominal $)					
Labor	9,143	7,431	8,209	9,838	10,139
Non-Labor	13,371	16,591	14,203	13,700	14,847
Other	0	0	0	0	0
Total	22,514	24,022	22,412	23,538	24,986
Adjustments (Nominal $)					
Labor	0	0	0	0	0
Non-Labor	(307)	0	0	0	0
Other	0	0	0	0	0
Total	(307)	0	0	0	0
Recorded/Adjusted (Nominal $)					
Labor	9143	7431	8209	9838	10139
Non-Labor	13064	16591	14203	13700	14847
Other	0	0	0	0	0
Total	22207	24022	22412	23538	24986
Escalation:					
Labor	1.1909	1.1803	1.1136	1.0365	1.0000
Non-Labor	1.0771	1.0618	1.0521	1.0257	1.0000
Other	1.0000	1.0000	1.0000	1.0000	1.0000
Recorded/Adjusted (Constant 2000$)					
Labor	10,889	8,771	9,141	10,197	10,139
Non-Labor	14,071	17,617	14,943	14,052	14,847
Other	0	0	0	0	0
Total	24,961	26,388	24,084	24,249	24,986

Labor from Overhead Clearing Account (Nominal $)					
Labor	976	1,037	934	0	0
Labor from Overhead Clearing Account (Constant 2000$)					
Labor	1,163	1,224	1,040	0	0

Recorded/Adjusted (Constant 2000$) *with labor restated to included labor from allocated overhead clearing account as a direct labor charge, and non-labor reduced by an equal amount.*

Note that the total did not change, only the distribution between labor and non-labor changed.

Labor	12,052	9,995	10,180	10,197	10,139
Non-Labor	12,908	16,393	13,903	14,052	14,847
Other	0	0	0	0	0
Total	24,961	26,388	24,084	24,249	24,986

APPENDIX D

Bill # S. 1746

Electronic copy not available

CHAPTER 8

TRANSMISSION EXPENSES

I. INTRODUCTION

Southern California Edison's (SCE) electric grid system is divided into three parts defined by voltage level: transmission, sub transmission, and distribution. SCE has 5,500 miles of 161 kilovolt (kV) and above transmission lines. Transmission lines carrying 550 kV connect with utilities in northern California, the Pacific Northwest and the Southwest as well as serve seven major power transmission substations. Voltage is stepped down to 220 kV at the substations. In the Los Angeles basin area, 220 kV transmission lines transmit power from generating stations throughout the service territory. The 500 kV lines, 220 kV lines and 500/220 kV transformers are part of the ISO-controlled transmission grid and fall under the jurisdiction of the Federal Electric Regulatory Commission (FERC). Parts of the sub transmission system which operate in parallel with the 220 kV transmission system are also included in the Independent System Operator (ISO)-controlled transmission grid.

II. SUMMARY

SCE's 2003 test year funding request for transmission Operation and Maintenance (O&M) of $73,713,000 is a 1.3% decrease from its recorded 2000 expenditures. ORA recommends a further adjustment of $1,467,500 or two percent to a level of $72,246,000. ORA's recommendation is based upon reviewing all of SCE's accounts and forecasting methodologies as well as historic data.

Table 8-1

Comparison of SCE and ORA Transmission Forecasts

SCE	ORA	Difference
$73,713,000	$72,246,000	$1,467,000

III. DISCUSSION/ANALYSIS

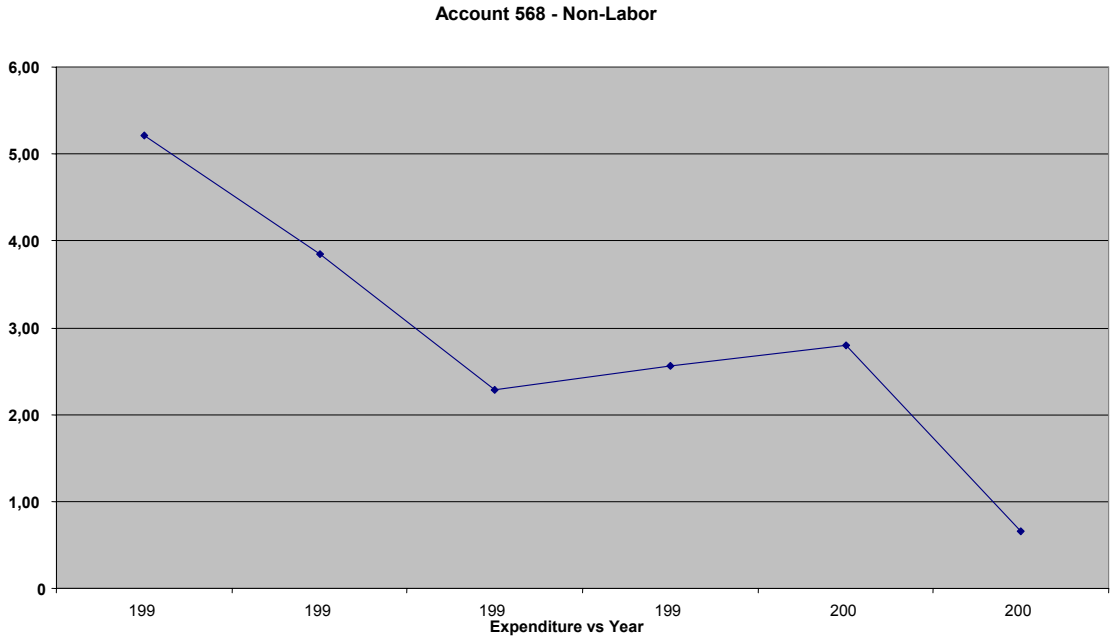
SCE discusses a number of factors affecting its recorded and forecasted O&M costs. For the most part, SCE has ignored or at least not incorporated historic data into its forecasts and has opted to use budget data to prepare its 2003 request. ORA has reviewed all of SCE's analysis and attempted to find a balance between historic spending levels and anticipated new expenditures that are not captured by past trends.

A. ACCOUNT 568: MAINTENANCE SUPERVISION AND ENGINEERING – NON-LABOR

Account 568 actual expenditures showed a significant decrease in non-labor expenses in 2001 compared to SCE's forecasted 2001 level. SCE forecasted expenses of $2,879,000 in non-labor expenses in 2001. However, SCE only spent $661,225. SCE stated in its testimony that trending was not a good method for forecasting expenses in this area and averaging was more appropriate. SCE used its budget methodology for this account but the forecasted numbers are very close to the five-year averages for the non-labor forecasts. The five-year average using SCE's estimated 2001 expenses is $2,872,000. This is very close to SCE's 2003-budgeted amount of $2,879,000. However, if the actual 2001 non-labor expenditure is used, the five-year average is $2,428,000. Table 8-2 clearly shows a marked decrease in expenditures in 2001.

Table 8-2

Actual Non-Labor Expenses



ORA recommends using the updated numbers to forecast non-labor Account 568, resulting in an adjustment of $451,000 to SCE's request.

B. ACCOUNT 571: MAINTENANCE OF OVERHEAD LINES

FERC Account 571 is used to record labor and non-labor expenses associated with maintaining overhead transmission lines. SCE states that it expects expenses in this area to increase due to the expectation of more repairs resulting from a more detailed approach to inspections. They continue to emphasize that the greatest effect will be in 2001 and beyond. SCE forecasts 2003 expenses in this category to be the same as those forecasted in 2001.

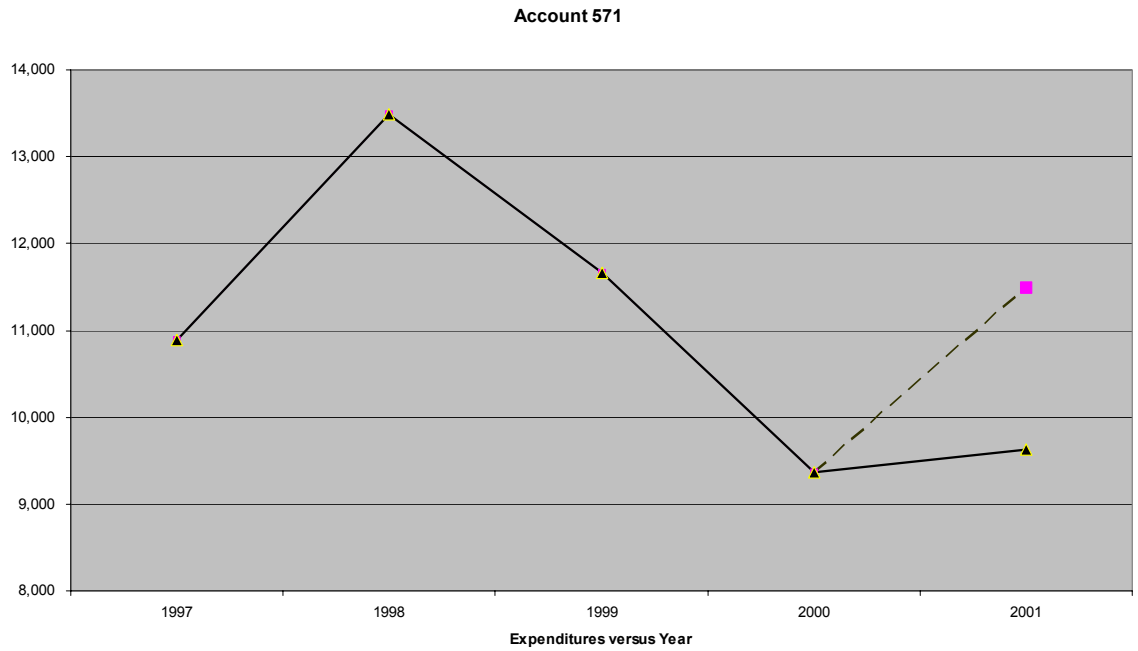
Once again SCE discounted all trending and averaging methodologies for forecasting this account and relied on budgeting information. The Company states that the new priority system will allow it to respond more quickly and levelize and cost-effectively

schedule less serious repair needs. SCE forecasts 2003 test year expenses at $11,395,000, a 21.7% increase from 2000 expenditures. As stated earlier, SCE expected the expenditures to increase dramatically in 2001 to $11,493,000. However, SCE's recorded 2001 expenditures were $9,627,488. This represents merely a $265,000 increase from 2000 compared to SCE's estimated increase of $2,131,000.

Table 8-3 shows a comparison between SCE's forecasted 2001 expenditures and actual expenditures. The dotted lines show SCE's forecasted expenditures while the solid lines shows actual expenditures.

Table 8-3

Comparison of Actual versus Forecasted 2001



ORA does believe SCE may spend more on inspections in this area than it did in 2000, but likely not as much as SCE has forecasted. If 2001 is any indication at all, as SCE proposes in its testimony, then perhaps inspections are not costing as much as SCE initially supposed. SCE initially requested an increase of $2,033,000 for this account. ORA recommends decreasing this increase by half given SCE's performance in 2001. Consequently, ORA recommends an increase in labor expenses of $697,000 to $3,765,000 for 2003 and an increase for non-labor expenses of $319,500 for a 2003 Account 571

expense of $6,614,000. ORA recommends a total of $10,379,000 for this account, a 10.9% increase.

C. ACCOUNT 562: STATION EXPENSES – NON-LABOR

Account 562 is used to record labor and non-labor expenses incurred by SCE's switching centers to operate the electrical system. SCE is requesting $4,651,000 for non-labor expenses in this account, approximately the same amount spent in 2000. However, SCE spent $6,599,840 for non-labor expense in 2001, over $2 million more than forecasted. ORA accepts SCE's request of $11,801,000 for Account 562 absent of any documentation for increased expenditures in this area.

D. ACCOUNT 565: TRANSMISSION OF ELECTRICITY BY OTHERS – NON-LABOR

Account 565 is used to record expenses associated with various agreements for firm transmission service related to specific resources and sales. This accounts covers three agreements: Western Area Power Administration Transmission for Remote Service, LADWP Transmission from Owen Valley and Transmission for Four Corners generation. SCE is requesting $7,577,000 in non-labor expenses for this account, an increase of $1,261,000 over 2000 expenses.

SCE anticipated most of the increase to be as a result of higher costs associated with transmission for Four Corners generation. In fact, SCE recorded substantially higher expenses in 2001 in this account, $10,963,598, almost 75% higher than 2000. This may likely be a function of higher overall energy prices in that year. Therefore, ORA accepts SCE's current request of $7,577,000 for this account. If SCE believes this account should be adjusted upward, it needs to provide copies of the applicable contracts associated with this account.

E. ACCOUNT 566: MISCELLANEOUS TRANSMISSION EXPENSE – NON-LABOR

Account 566 is used to record expenses incurred for miscellaneous transmission activities and services and includes two types of cost-sharing agreements for firm transmission services. SCE has requested a total of $11,071,000 for test year 2003. However, SCE recorded over $83 million in non-labor expenses in this account in 2001. ORA assumes this is an anomalous and non-recurring expense and should not be used to adjust SCE's current request since it would more than double SCE's current total transmission O&M budget. Additionally, SCE may have included adjusted expenses that are not traditionally associated with the functions in this account. ORA accepts SCE's request for Account 566 as stated in its testimony.

IV. CONCLUSIONS

ORA recommends a 2003 funding level of $72,246,000 for transmission O&M expenses. This recommendation represents an adjustment of $1,468,000 or two percent to SCE's request. ORA made adjustments to accounts 568 and 571 based on historic spending levels in those accounts. ORA accepts SCE's estimates for the remaining transmission O&M accounts.

CHAPTER 9

DISTRIBUTION EXPENSES

I. INTRODUCTION

SCE estimated a distribution funding level of $200,983,000 for test year 2003. The company provided an analysis utilizing historic spending levels; however, all but a couple of its forecasted estimates were derived from a budget methodology. In many cases, SCE has discounted the historic data due to personnel reductions in 1996 and 1997 or has added money to account for new programs not reflected in historic data.

ORA reviewed all of SCE's historic data and proposed new programs for distribution expenses. In general, ORA accepted the majority of SCE's test year forecasts except for four accounts discussed in this chapter. ORA does not support ignoring historic data in developing forecasted expenditures but at the same time recognizes the special circumstances SCE and the other California utilities have faced over the last five years. ORA is also concerned about SCE adhering to and complying to basic General Orders. Recently, the Commission has shown special interest in these General Orders and SCE has forecasted extra money in order to upgrade its inspection, reporting and eventually repair schedules. ORA has accepted all added expenditures for these areas in an understanding that SCE would diligently attempt to fully comply with ALL general orders as mandated by CPUC code.

II. SUMMARY

SCE has requested $200,983,000 for FERC Account 580 through Account 598. ORA reviewed SCE's historic spending in these accounts and made adjustments to SCE's request. ORA recommends a funding level of $194,877,000 for Accounts 580-598, which represents an adjustment of $6,106,000 or 3%. A summary of ORA's and SCE's funding recommendations can be found in Table 9-1.

Table 9-1

Comparison of SCE and ORA Forecasts

SCE	ORA	Difference
$200,983,000	$194,877,000	$6,106,000

Table 9-2 shows a comparison of the accounts where ORA made adjustments.

Table 9-2

Accounts Adjusted by ORA

Account	SCE	ORA	Difference
582	$11,918,000	$10,014,000	$1,904,000
591	$845,000	$469,000	$376,000
594	$12,543,000	$10,805,000	$1,738,000
598	$21,543,000	$19,456,000	$2,087,000

III. ESTIMATING METHODOLOGY

SCE and ORA reviewed historical spending levels for each FERC account and sub-account. Several different methods were used to calculate test year estimates of labor and non-labor expenses. The methods include:

- Linear Trending
- Averaging
- Last-Year Recorded
- Budget Based

In almost every instance, SCE opted to use the Budget Based methodology to forecast test-year expenses. In many cases, SCE's methodology forecast test year expenses lower than historic trends. Most of the accounts that were forecasted to increase in spending levels over historic levels were due to personnel reductions in 1996 and 1997. Additionally, SCE forecasted higher spending in some accounts due to increased

inspections associated with G.O. 165 and G.O. 95. ORA believes that SCE will spend more money doing inspections during the test year. However, it is worth noting that G.O. 165 does not require the utility to do anything different than it should have been doing before G.O. 165's issuance in March 1997. SCE should have already been inspecting and maintaining their system; G.O. 165 merely set outside parameters for this to occur.

ORA accepted most of SCE's forecast in these accounts. However, in a few instances ORA found that historic data was a more compelling indicator for future spending.

IV. ANALYSIS OF DISTRIBUTION ACCOUNTS AND SUB-ACCOUNTS

Following is a summary of the methods ORA and SCE used to forecast funding levels for all of the accounts comprising SCE's Distribution system.

A. ACCOUNT 580: OPERATIONS SUPERVISION AND ENGINEERING EXPENSES

Account 580 includes the cost of labor and expenses incurred in the general supervision and engineering of the operation of the distribution system. SCE requests a total of $25,192,000 for test year 2003, including $4,187,000 for labor and $21,005,000, a $90,000 increase from 2000 expenditures.

SCE used the budget approach to forecast 2003 expenses, stating that a budget approach more closely approximated the estimated expenses. ORA reviewed SCE's historic expenditures in this account. Approximately 50% of the expenses occur in sub-account 580.980 which includes management and supervision costs for distribution maintenance that are general in nature.

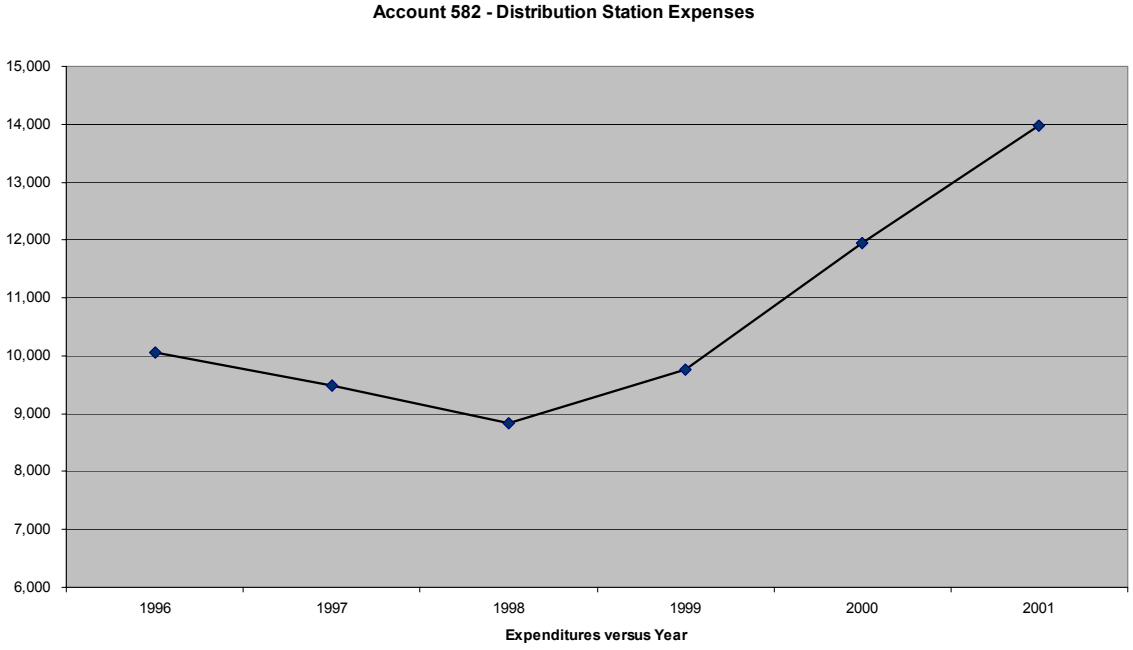
SCE forecasts that labor expense will drop significantly in this account. ORA calculated the average labor costs for the past five years, including 2001 historic data to be $4,475,000 compared to SCE's $4,187,000. ORA accepts SCE's request and believes, as stated, that SCE can accomplish all its goals in this area with the requested level of funding.

When reviewing non-labor expenses, ORA calculated a four-year average, including actual 2001 data, to be $18,307,000. However, ORA believes the 1997 and 2001 numbers to be anomalous and were unlikely to be predictive of 2003 expenditures. Consequently, ORA accepts SCE's requested non-labor funding level of $21,005,000.

B. ACCOUNT 582: DISTRIBUTION STATION EXPENSES

Account 582 includes expenses for substation operations. SCE is requesting $11,918,000 which includes $9,994,000 for labor and $1,924,000 for non-labor. SCE arrived at its forecast using its budget methodology, stating that the costs incurred in 2000 are expected to be incurred in the test year and that the averages were not representative of expected test year expenses for labor. In addition, SCE states that the downward sloping trending methodologies that produced lower non-labor estimates are also not applicable in this account and that current levels of expenditures are expected to prevail through the test year. In fact, SCE spent $13,985,236 in 2001, continuing the trend seen in Figure 9-1.

Figure 9-1



ORA is concerned about increasing costs to ratepayers. SCE did not provide adequate justification for the alarming increase in spending in this account. Consequently,

ORA believes it is important for SCE to control these costs and maintain levels consistent with spending levels between 1996 through 2000. The five-year average of labor and non-labor expenditures for the years 1996-2000 yields $7,716,000 and $2,298,000, respectively. ORA's recommended funding for this account of $10,014,000 is $1,904,000 less than SCE's request based on budgeting.

C. ACCOUNT 583: OVERHEAD LINE EXPENSES

Account 583 records the expense of operating the overhead portion of SCE's electrical distribution system, including operating, inspecting, and testing lines, used transformer installation/removal, claims write-off damage by others, and other costs associated with circuit management and voltage regulation. SCE is requesting a total of $12,463,000 for test year 2003, which includes $7,840,000 for labor and $4,623,000 for non-labor. SCE states that the increased expenses experienced in 2000 will continue through the test year due to implementing a G.O. 165 inspection program. ORA supports cost effective work that insures a safe and reliable system. And while, ORA accepts SCE's increased forecast due to costs changes related to G.O. 95 and G.O. 165, we point out that G.O. 165 does not require the utility to do more work. Perhaps SCE has not requested adequate money in the past to meet G.O. 95 requirements. ORA accepts SCE's forecasted expense in this account however expects that SCE will comply with all CPUC general orders.

D. ACCOUNT 584: UNDERGROUND DISTRIBUTION LINE EXPENSES

Account 584 records expenses for operating the underground portion of SCE's distribution system. SCE is requesting a total of $1,486,000 for test year 2003, which includes $1,387,000 for labor and $99,000 for non-labor. ORA reviewed the SCE analysis and justifications for this account and accepts the company's forecast.

E. ACCOUNT 585: STREET LIGHTING AND SIGNAL SYSTEM EXPENSES

Account 585 accounts for expense related to patrolling, inspecting and testing streetlights. SCE requests a total of $1,028,000, which includes $846,000 for labor and $182,000 for non-labor. After reviewing the company's analysis, ORA accepts SCE's estimates for this account.

F. ACCOUNT 586: METER EXPENSES

Account 586 records expenses related to meter inspections, testing, turning on and turning-off service and maintaining meter records. SCE is requesting a total of $10,791,000, which includes $11,047,000 for labor and minus $256,000 for non-labor. SCE states that it has implemented many cost saving programs and practices in this area. ORA has verified this in its analysis and accepts SCE's revenue requirement for this area.

G. ACCOUNT 587: CUSTOMER INSTALLATIONS EXPENSES

Account 587 records expenses related to work on customer installations including inspecting equipment and providing service to customers. SCE has requested $9,916,000, including $8,452,000 for labor and $1,463,000 for non-labor. ORA has reviewed and accepts SCE's forecast in this account.

H. ACCOUNT 588: MISCELLANEOUS DISTRIBUTION EXPENSES

Account 588 records distribution expenses for mapping, underground facility locating, engineering support, drafting, field surveying, electric transportation, training, safety and training meetings, security, landscape care, and cleaning/janitorial services. SCE is requesting a total of $24,516,000, including $11,827,000 for labor and $12,689,000 for non-labor for this account.

Account 588 captures expenditures across a variety of activities. SCE used its budgeting technique to forecast this account. SCE forecasted 2003 expenses based on 2001 forecasted expenses. ORA reviewed the contributing sub-accounts, analyzed historic spending and incorporated 2001-recorded data.

SCE states that much of the expenditures in this account have been contained over the years and will remain constant from 2001 through the test year. ORA accepts SCE's forecast in this account.

I. ACCOUNT 589: RENTS

Account 589 records rental and lease expenses for field operations facilities, and other miscellaneous temporary rentals needed for distribution operations. SCE requests a total of $368,000 for test year 2003, which is entirely non-labor. ORA reviewed SCE's analysis and accepts this estimate for Account 589.

J. ACCOUNT 590: MAINTENANCE SUPERVISION AND ENGINEERING

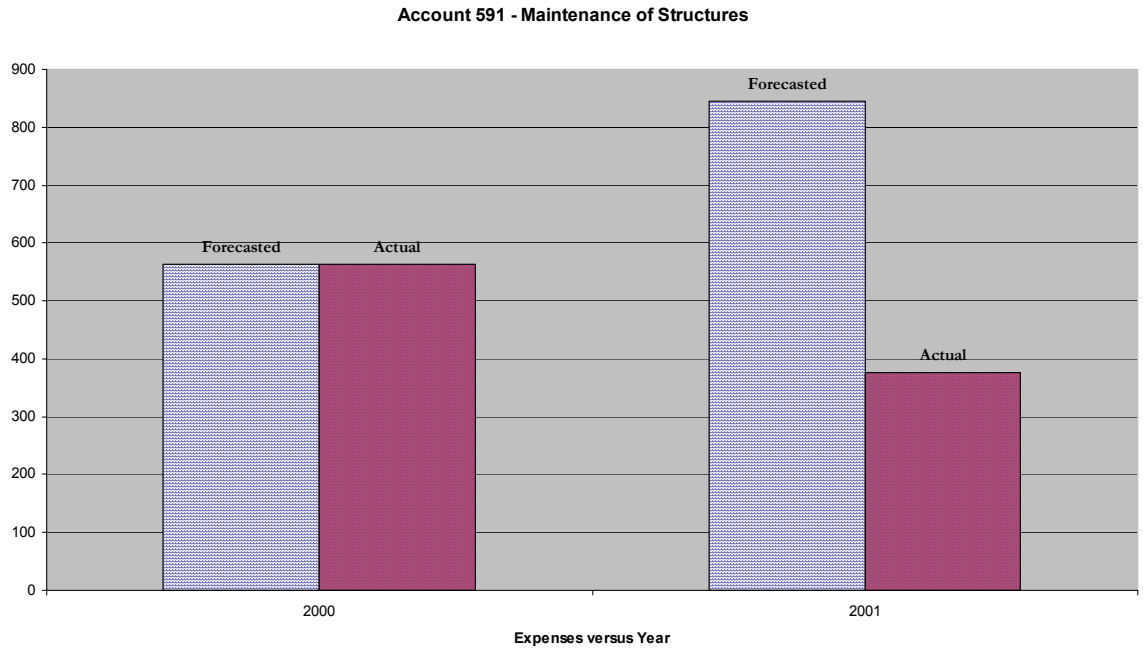
Account 590 records expenses incurred for the supervision of the required maintenance work on SCE's distribution substation equipment. SCE is requesting a total of $8,042,000 for test year 2003, which includes $916,000 for labor and $7,126,000 for non-labor. ORA accepts SCE's forecast for Account 590.

K. ACCOUNT 591: MAINTENANCE OF STRUCTURES

Account 591 records costs associated with repairing and maintaining facilities associated with FERC Account 361. SCE is requesting $845,000 for test year 2003, $120,000 for labor and $725,000 for non-labor. SCE stated that labor expenses in 2001-2003 are expected to remain level with the 2000 amount while the non-labor expenses are expected to increase in 2001, due to a return to a normal level of facility repairs following a very low amount of repairs made in 2000. The 2001 budget target was $120,000 for labor and $725,000 for non-labor. However, SCE actually spent $58,824 for labor and $316,969 for non-labor, approximately half of what was budgeted. Figure 9-2 shows a comparison of SCE's forecasted expenses in this account compared to the actual spending level.

Figure 9-2

Comparison of Actual versus Forecasted Expenses in 2001



Since SCE states that test year expenditures in this account are closely tied to 2000 and 2001 budgets, ORA recommends using an average of these two years. Therefore ORA's recommended budget for Account 591 is $90,912 for labor and $378,484 for non-labor for a total of $469,397.

L. ACCOUNT 592: MAINTENANCE OF DISTRIBUTION STATION EQUIPMENT

Account 592 is used to record expenses incurred for the maintenance of distribution substation equipment. SCE is requesting $7,305,000 for this account including $3,310,000 for labor and $3,995,000 for non-labor. SCE used their budget methodology to forecast this account and forecasts an approximately six percent decrease from 2000 spending levels. ORA reviewed and accepts SCE's estimate for this account.

M. ACCOUNT 593: MAINTENANCE OF OVERHEAD LINES

Account 593 records the maintenance cost of overhead distribution lines, including trimming and removing trees and brush. Storm-related repairs and pole replacements are

not included in this account. SCE requests a total of $46,009,000 for test year 2003, including $15,137,000 for labor and $30,872,000 for non-labor. SCE is increasing the labor expense by almost 50% over 2000 levels. SCE attributes much of the increases in expenditures in this account to detailed inspection requirements associated with G.O. 165 as well as increased tree-trimming expenses due to D.97-01-044. ORA believes this account should be monitored by the Commission to study the relationship between what is allocated for inspections and tree trimming and what is actually spent. Currently, ORA accepts SCE's forecast for this account.

N. ACCOUNT 594: MAINTENANCE OF UNDERGROUND LINES

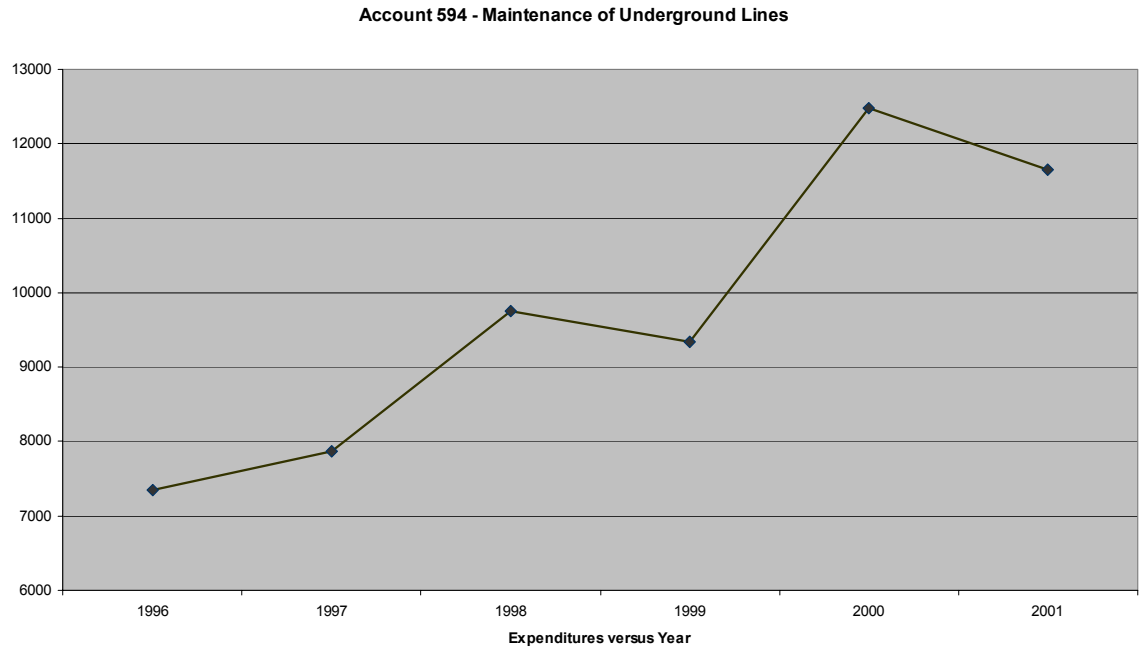
Account 594 records the cost of maintenance for underground distribution circuits. SCE is requesting a total of 12,543,000 for test year 2003, including $7,510,000 for labor and $5,033,000 for non-labor. SCE's request represents a 0.5% increase over 2000 expenditures.

ORA reviewed SCE's historic expenditures in this account. SCE once again used its budgeting methodology to estimate expenditures in 2003. SCE explained that personnel reductions in 1996 and 1997 underestimate future spending in this area. In addition, SCE stated that it expected that the increased workload associated with more detailed G.O. 165 inspections experienced in 2000 to continue through the test year.

Figure 9-3 shows SCE's expenditures in this account for the years 1996 through 2001.

Figure 9-3

Actual Expenditures for Account 594



ORA averaged labor and non-labor expenses in this account for years 1998 through 2001. This data set eliminates the personnel reductions of 1996 and 1997 and includes the increased G.O. 165 inspections of 2000 and 2001. SCE stated that it expected underground maintenance work to remain constant with the last recorded year. ORA also believes that SCE will become more efficient in its G.O. 165 inspections over time. ORA calculated the overall average of 1998 through 2001 Account 594 expenses as $10,805,000.

SCE anticipates a shift in work in this account from more non-labor based to more labor based. In order to capture the shift between labor and non-labor allocation in this account, ORA recommends $6,469,000 for labor and $4,336,000 for non-labor expenditures for the test year in this account.

O. ACCOUNT 595: MAINTENANCE OF TRANSFORMERS

Account 595 records the costs of maintenance and refurbishment of distribution transformers. This account includes maintenance activities for both overhead and

underground transformers. SCE requests $1,278,000 for test year 2003, including $740,000 for labor and $538,000 for non-labor. ORA reviewed and accepts SCE's forecast for this account.

P. ACCOUNT 596: STREET LIGHT AND SIGNAL SYSTEM MAINTENANCE

Account 596 records expenses related to the maintenance and repair of streetlight and signal systems and for the testing and repair of street lighting equipment. SCE requests a total $4,176,000 for test year 2003 that includes $1,730,000 for labor and $2,446,000 for non-labor. ORA investigated and accepts SCE's estimate for this account.

Q. ACCOUNT 597: CUSTOMER INSTALLATION EXPENSES

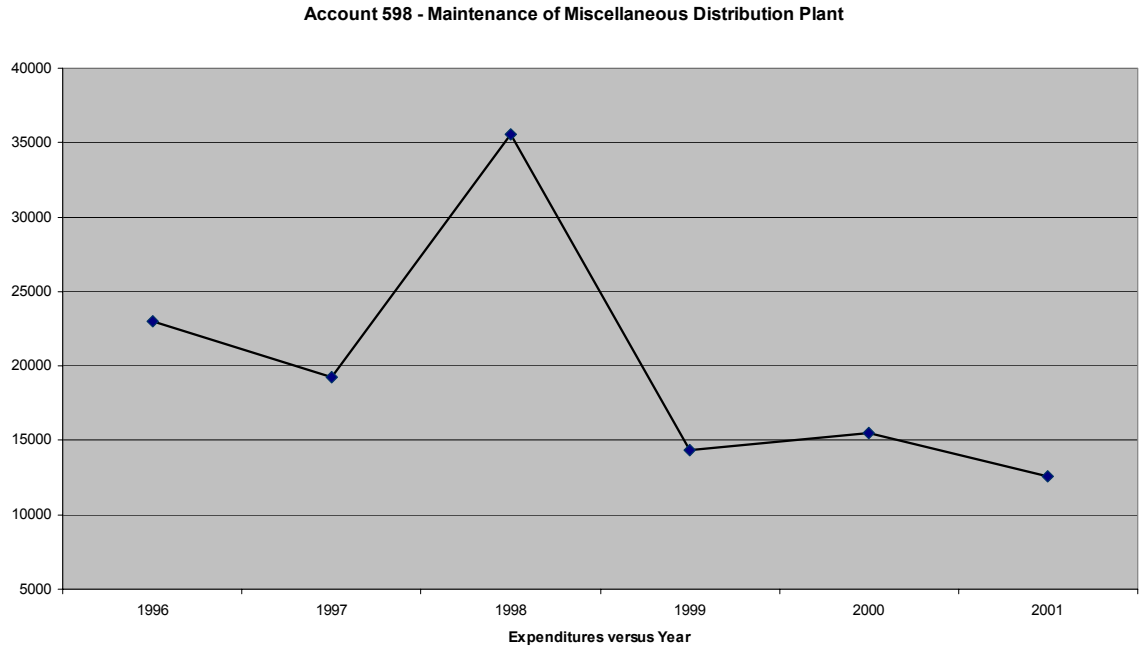
Account 597 records costs related to maintenance and repair of meters and meter testing. SCE requests a total of $1,564,000 for test year 2003, which includes $1,219,000 for labor and $345,000 for non-labor. ORA accepts SCE's estimates for this account.

R. ACCOUNT 598: MAINTENANCE OF MISCELLANEOUS DISTRIBUTION PLANT

Account 598 records the costs associated with storm damage. SCE requests a total of $21,543,000 for 2003, which is all non-labor.

SCE used a five-year average, 1996-2000, to forecast this account. ORA also used a five-year average to forecast this account but incorporated more recent recorded data, 1997-2001 to develop test year expenses. Figure 9-4 shows historic spending in this account.

Figure 9-4



Incorporating more recent data decreases the current five-year average to $19,456,000 for Account 598. ORA recommends accepting this forecast for this account.

V. CONCLUSIONS

ORA recommends a funding level of $194,877,000 for Accounts 580-598 based upon historic spending levels and increased efficiencies shown by SCE during trying circumstances. ORA has accepted all proposed SCE increases over historic spending levels for more detailed inspecting and repair schedules associated with G.O. 165 and G.O. 95 in spite of the fact that these orders did not require the utility to perform any extra duties. ORA does recommend monitoring expenditures in this area to ensure that the money is being spent to conduct inspections and all CPUC general orders are in compliance.

CHAPTER 10

CUSTOMER SERVICE OPERATIONS

AND OTHER OPERATING REVENUES

I. INTRODUCTION

Accounts 901 through 905 are the Operations and Maintenance (O&M) expenses for meter reading, billing, and other customer-service activities. Uncollectibles expense (Account 904) is included as well, although it is presented as a percentage factor rather than as a dollar-denominated expense item.

Other Operating Revenues (OOR) include revenues from a variety of customer fees, such as fees for initiation and reconnection of service.

II. SUMMARY

ORA proposes adjustments of $830,000 to Customer Service Operations expenses. This includes audit adjustments and adjustments that eliminate SCE's proposed multiyear averaging for some accounts. ORA also advocates a reduction in the uncollectibles factor. Customer Service Operations expenses are discussed in Section III.

Regarding Other Operating Revenues, ORA advocates more moderate increases in service fees than SCE is asking; these changes will reduce OOR, and also have effects on uncollectibles expense and working capital. Service fees and Other Operating Revenues are discussed in Section IV.

III. CUSTOMER SERVICE OPERATIONS

The recorded, adjusted year-2000 expense for Accounts 901, 902, 903 and 905 is $139,684,000. SCE's proposed test-year amount is $150,735,000. SCE proposed adjustments for customer-count growth and productivity improvements across the entire account group. The productivity improvements approximately offset the upward adjustments for growth. SCE also proposes other adjustments to account for Internet expenses, a postal rate increase, direct-access expenses and the costs of compliance with a

variety of "new regulatory mandates," such as real-time metering. ORA's proposed amount for 901, 902, 903 and 905 is $149,905,000.

Not counting Uncollectibles, there are 12 accounts or subaccounts in the Customer Service Operations group. For four of these, SCE proposed a multiyear average, rather than the base-year amount, as the starting point for developing the test-year cost for the account or subaccount; in each case the use of averaging increased the cost above the test-year amount. ORA has accepted SCE's use of the base-year methodology for the majority of accounts or subaccounts related to customer operations expenses. For this area, in the interest of consistency, ORA advocates the use of the base-year amount where possible. ORA recommends rejection of the averaging methodology for two of the accounts in question.

ORA recognizes that an average of several years' recorded amounts may sometimes be more appropriate than the base-year data as a starting point for developing the test-year amount. If the data in question vary widely from year to year, an average of several years' amounts may be more appropriate than one year's data, which might be unusually high or low, and therefore likely to be unrepresentative. However, those circumstances are not present for Accounts 901 or 903.200; the year-to-year data for these accounts show very little variation over the 1998-2000 period. Therefore, ORA does not see a need to use a three-year average for these two accounts, as SCE proposes. ORA recommends disallowance of the additional $283,000 that results from using averaging.

SCE also used averaging for Subaccounts 905.300 and 905.800. As the data for these two accounts shows greater year-to-year variability, ORA will not contest the use of averaging.

Table 10-1 below summarizes SCE's and ORA's proposed test-year values for these accounts, in thousands of dollars:

TABLE 10-1

Account		SCE	ORA
901	BU Mgmt/Support	16,752	16,263
902	Meter Reading	33,455	33,448
903	Records / Collections	91,550	91,240
905	Miscellaneous:	8,978	8,953
	TOTAL	150,735	149,905

A. ACCOUNT 901 BUSINESS UNIT MANAGEMENT / SUPPORT

SCE's proposed test year amount is $16,752,000, reflecting increases for additional Internet expenses and direct access costs; as well as an adjustment of $141,000, which reflects the averaging of three years' (1998 through 2000) of recorded, adjusted Account 901 expenses, rather than using the base-year (2000) amount as the starting point for the test-year figure.

ORA proposes adjustments totaling $489,000. ORA takes issue with SCE's averaging adjustment. The use of a multiyear average is not necessary for this account, because the Account 901 recorded, adjusted data are very stable over the past three years. Expressed in year-2000 dollars, the 1998, 1999 and 2000 amounts are $15,141,000, $15,273,000 and $14,996,000, respectively. The average of the three years' data is $15,137,000. Comparing each of the three years' figures to this mean shows that each year's amount is within one percent of the mean. Accordingly, ORA believes the recorded year-2000 amount is the best choice for Account 901, and the "averaging" adjustment of $141,000 should therefore be reversed.

ORA auditors made two adjustments to Account 901:

An adjustment of $313,000 was made to remove costs of an SCE affiliate – Edison Select – which has been sold; this adjustment is explained in Chapter 5 of ORA's "Report on the Results of Examination."

An adjustment $34,600 was made to remove "spot" bonuses; this adjustment is explained in Chapter 3 of ORA's "Report on the Results of Examination."

B. ACCOUNT 902 METER READING

SCE's proposed test-year amount is $33,455,000. ORA auditors made an adjustment of $6,700 to remove "spot" bonuses, as explained in explained in Chapter 3 of ORA's "Report on the Results of Examination."

C. ACCOUNT 903 RECORDS AND COLLECTIONS

SCE's proposed test-year amount is $91,550,000. ORA proposes adjustments totaling $312,000; these consist of $70,000 for the elimination of "spot" bonuses, explained in Chapter 3 of ORA's "Report on the Results of Examination," and the reversal of SCE's proposed adjustment to Credit expenses of $142,000 for multiyear averaging and a reduction of $100,000 in Postage expense.

Subaccount 903.100 – POSTAGE

In its application, SCE proposed an increase of $2,462,000 to reflect an anticipated postal rate increase; subsequently, the Postal Service announced the actual rate increases. SCE then reported in a data response to ORA that its estimated increase in postal expenses would be approximately $100,000 less than was asked in the application. ORA has verified this difference is due to the actual increases in the "3-digit" and "5-digit" presorted mail rates being slightly lower than was forecast by SCE. ORA therefore proposes a reduction of $100,000 to SCE's requested postal expense of $18,238,000.

Subaccount 903.200 – CREDIT

SCE proposed to use the average of 1998-2000 recorded adjusted data rather than the recorded adjusted year-2000 amount, as the starting point developing a 2003 figure for this account. As is the case for Account 901, described above, the adjusted recorded data for Account 903.200 show only modest variation over the 1998-2000 period. None of the three years' amounts varies by more than 4% from the mean, and the year-2000 amount is within 1% of the mean. Accordingly, ORA opposes the use of a multiyear averaging adjustment for this subaccount. Reversing SCE's averaging adjustment reduces the revenue requirement for this account by $142,000.

D. ACCOUNT 904 UNCOLLECTIBLES

Uncollectibles expense is presented as a percentage of revenues rather than as an element of total O&M. The recorded year-2000 amount was 0.311%. SCE proposes an uncollectibles factor of 0.326%, which it calculated by averaging the annual percentages from the five-year period 1996 through 2000, obtaining 0.319%, then adding an adjustment of 0.007% for anticipated uncollectible amounts from its proposed residential late-payment fee and increased field-assignment charge. As is explained later in this chapter, ORA opposes the residential late-payment charge and advocates a much smaller increase in the field assignment charge. Therefore, ORA would reverse the latter adjustment. ORA also proposes the use of the recorded year-2000 percentage of 0.311%, rather than averaging-in the uncollectibles percentages from the four earlier years. In this regard, ORA notes that SCE has been making improvements in its procedures for assessing the credit-worthiness of new customers:

> "With the positive identification process of new service applicants, we are now able to internally trace new applicants to old, sometimes delinquent accounts, thus helping to recover what otherwise would be lost revenue."
> (Application, SCE-5, vol. 2, p.55)

To better reflect likely reductions in uncollectibles due to SCE's recently-implemented improvements in procedures, ORA opposes averaging-in older data. Instead, ORA advocates the use of the most recent available data, the adjusted recorded year-2000 data.

E. ACCOUNT 905 MISCELLANEOUS

For two subaccounts of Account 905, SCE proposed the use of multiyear averages, rather than last-recorded-year data, to develop test-year amounts; for these two subaccounts, ORA is not challenging the use of multiyear averaging. SCE proposed a five-year average for Subaccount 905.300 (Policy Adjustments) and a three-year average for Subaccount 905.800 (Consumer Affairs); these adjustments add $55,000 and $68,000, respectively. As the historical data for 905.300 does vary substantially from year to year, ORA does not dispute the use of a multiyear average for this account in this GRC. The

variability for 905.800 is not as large as that of 905.300, but is greater than that of the two accounts (901 and 902.300) where ORA does contest SCE's use of averaging.
ORA auditors made adjustments totaling $25,000. These adjustments concern "spot" bonuses.

IV. OTHER OPERATING REVENUES

Other Operating Revenue ("OOR") includes revenue from service fees for initiating service, reconnection of service disconnected for nonpayment, late fees, etc. OOR is treated as a credit to the overall cost of service; therefore greater OOR means other rates will be lower. SCE proposed OOR of $54,514,000, an increase of 75% above recorded year-2000 amounts. The majority of OOR comes from customer fees, such as the charge to connect a new customer, and the reconnection fees charged to customers whose service has been turned off for nonpayment of bills; SCE is requesting substantial increases in the fees. SCE also is requesting the introduction of a late-payment charge for residential customers, a proposal which the Commission rejected in SCE's previous GRC. ORA opposes the introduction of a residential late-payment charge, and advocates that some of the other service fees be set at considerably lower levels than those proposed by SCE. ORA's estimates of OOR reflect these lower charges. ORA's positions on OOR also have consequences for several elements of the cost of service, including uncollectibles expense and working capital.

Table 10-2 presents the customer service fees proposed by SCE in the previous GRC, together with those adopted by the Commission in that case, and those proposed by SCE and ORA in the instant case. SCE's proposed fees represent increases as great as 90%, while, under ORA's proposal, the largest increase is 26%, and some fees do not increase at all. The reasons for adopting the ORA-proposed fees are presented in the sections that follow

TABLE 10 -2 Customer Service Fees

		1995 SCE-proposed fees	1995 accepted (current)	2002 SCE-proposed fees	change $	change %	2002 ORA-proposed fees	change $	change %
Return Check		10.00	**9.00**	**11.00**	2.00	22%	**10.00**	1.00	11%
Reconnect at Meter:	next day	15.00	**12.50**	**17.00**	4.50	36%	**14.00**	1.50	12%
	same day	25.00	**20.00**	**32.00**	12.00	60%	**25.00**	5.00	25%
	nite/wknd	30.00	**25.00**	**44.00**	19.00	76%	**30.00**	5.00	20%
Reconnect at Pole:	next day	30.00	**30.00**	**57.00**	27.00	90%	**30.00**	0.00	0%
	same day	50.00	**50.00**	**60.00**	10.00	20%	**50.00**	0.00	0%
	nite/wknd	70.00	**60.00**	**74.00**	14.00	23%	**60.00**	0.00	0%
Service Estab	next day	15.00	**10.00**	**17.00**	7.00	70%	**12.00**	2.00	20%
	same day	25.00	**17.50**	**27.00**	9.50	54%	**22.00**	4.50	26%
Field Assignment		15.00	**10.00**	**18.00**	8.00	80%	**11.00**	1.00	10%
Field Asgnmt + Recon Next Day		30.00	22.50	35.00	12.50	56%	25.00	2.50	11%

One way of comparing SCE's proposed fees with ORA's is to compare the sum of the Field Assignment charge (incurred when the service worker turns off the customer's power) and the next-day reconnection fee (paid for the restoration of power on the day following payment); this is the combination of fees that would be incurred by a customer whose power is disconnected for nonpayment, and who opts for the least-expensive reconnection fee (next-day reconnection). Presently, the sum of these two fees is $22.50. Under SCE's proposed fees, the sum would rise to $35, an increase of 56%. Under ORA's proposed fees, the sum would rise to $25, an increase of 11%.

A. ACCOUNT 450

Subaccount 450.100 Nonresidential Late Payment Charges

SCE has had a late-payment charge for nonresidential customers since 1992. The company is not proposing changes to the terms of this fee.

Subaccount 450.150 Residential Late Payment Charges

Presently there is no late payment charge for residential (Domestic) customers. SCE proposes a residential late-payment charge of 0.9%.

It is not known what proportion of residential late-fee revenues would fall on low-income customers. In response to an ORA data request, SCE stated that it has performed no studies of the characteristics of customers who pay bills late. However, it seems probable that low-income customers would be disproportionately affected by a late fee.

ORA does not believe it would be good policy to impose an additional charge on customers whose payments are late owing to inability to pay. This simply compounds their problem. In addition, the imposition of a late-payment fee would be likely to increase customer-service expenses, because some customers would contact the company to dispute the late charge, thereby taking up the time of customer-service personnel. Moreover, the proposed late-payment charges are not efficient, in that SCE estimated that 5% of these charges will never be collected and will eventually be written off as uncollectibles expense [Application, SCE-5, vol. 2, p. 156]. Therefore the uncollectibles rate for these late fees is about sixteen times the overall uncollectible-revenue factor, which was 0.311% for 2000.

Imposition of a residential late-payment fee in the present case would be especially inappropriate, given that customers already are bearing the burden of the recent rate increases to cover higher generation costs.

SCE estimated that the imposition of a Residential late-payment charge would collect about $7 million in OOR, would reduce Residential-class revenue lag by one day, and thereby reduce working-capital expenses, but would raise the overall uncollectibles factor, the latter because SCE expects that approximately 5% of the late fees will be written off as uncollectible. Because ORA recommends against the adoption of residential late charges, ORA also does not include these effects in its proposed revenue requirement. However, ORA notes that, even though the non-residential classes of service are currently subject to late charges and the Residential class is not, the Residential class nevertheless has the *lowest* revenue lag of the five largest classes of service (Residential, Agricultural, Commercial, Industrial, and Other Public Authorities). ORA's position on working capital is presented in Chapter 18. Uncollectibles expense was discussed earlier in this chapter.

B. ACCOUNT 451

Account 451 includes fees for initial connection of service, fees for reconnection when service has been disconnected, fees for checks returned due to insufficient funds, and other revenues.

In its current application, SCE is proposing service-fee increases of up to 90%, on the basis of a Company cost-of-service study. But costs are not the only element that should be considered in ratemaking. The Commission stated this, in deciding SCE's previous GRC (and citing a still earlier opinion):

> "However, cost is not the sole factor relevant to our inquiry. As we stated in D.91-12-075, 42 CPUC2d 566, 591-592:
>
> "Our past decisions have never held that just and reasonable rates, the statutory standard (PU Code SS 451 and 728), had only one component – costs. We have always held that factors such as conservation, affordability, market price and equity had to be factored into the rates. Cases which most strongly supported cost-based rates invariably tempered those statements with language which showed our concern for other ratemaking factors. ...
>
> A reading of the PU Code leaves no doubt that the Commission must look beyond costs when setting rates. ... There is nothing in the Code which equates cost-based rates as being a synonym for just and reasonable rates, or as the sole standard by which rates are considered just and reasonable."
>
> [D.96-01-011, pp. 70-71]

ORA takes particular note of the above passage's mention of "affordability" as one of the important factors that the Commission said must play a role in ratemaking. ORA recommends that, in setting service fees, the Commission balance SCE's cost analysis with considerations of affordability. In response to an ORA data request, SCE stated that it had not performed any studies of the characteristics of customers who have had service disconnected (and would therefore be paying reconnection fees). However, it seems likely that the reconnection fees (and perhaps all other service fees as well) could fall more than proportionately on lower-income customers. It seems clear that low-income customers are at a greater risk of service disconnection than other customers, owing to ability-to-pay problems; therefore, these customers would be more likely than others to be subject to reconnection fees.

Service fee revenues go to Other Operating Revenue and are credited against the overall cost of service; therefore, an increase in service fees reduces the revenue

requirement which all customers must pay through rates. However, given the likelihood that service fees disproportionately affect lower-income customers, ORA advocates striking a balance between cost responsibility and affordability that keeps fee increases reasonable, and allows rate revenue to make up the difference, rather than raising the service fees to full-cost levels under the rationale that rates will thereby be slightly lower. (For similar reasons, ORA opposes the introduction of a residential late-payment fee, as noted earlier in this chapter). And ORA considers it important that the most "basic" option of each fee group (e.g., of the reconnection fees, the next-day fee) be kept affordable.

Subaccount 451.110 Returned Check Charges

SCE proposes to increase its returned-check charge from $9 to $11. The charge reimburses SCE for bank fees it incurs when a customer's check is returned for nonpayment. SCE provided a cost study supporting its proposed charge of $11. However, the $11 charge includes both "first-attempt" and "second-attempt" charges from the banks. The Commission addressed this issue in SCE's previous GRC (when SCE proposed raising the charge to $10) and stated:

> "Edisons's $10 charge included bank costs for checks which did not clear on the first attempt but did clear on the second attempt. We believe it is more appropriate to assign those costs to the general body of ratepayers (i.e. overhead) than to have specific customers who bounced checks pay for costs which they did not incur." [D.96-01-011, p. 73, footnote 36]

Because the "first-attempt" charges amounted to $1, the Commission adopted a returned-check fee of $9, rather than SCE's proposed $10.

ORA agrees with the reasoning the Commission expressed in D.96-01-011. Regarding SCE's current proposal of an $11 returned-check charge, the updated SCE cost study shows that the "first-attempt" charges still amount to $1. Therefore, ORA recommends that the Commission adopt a new returned-check fee of $10, rather than the proposed $11.

Subaccount 451.200 Reconnection Charges

ORA proposes that fees for reconnection at the pole be left at their current levels, and that fees for reconnection at the meter receive moderate increases.

ORA notes that a worker paid the California minimum wage of $6.75 per hour would earn $54 in an eight-hour day, or $270 per week, exclusive of deductions.

Therefore, the highest of SCE's existing fees for reconnection at the pole would take more than 20% of a minimum-wage worker's weekly gross pay. ORA submits that additional increases in these fees, as SCE is proposing, could be a hardship to low-income customers. ORA therefore proposes that the fees for reconnection at the pole be left unchanged.

According to data in SCE's Application (SCE-5, vol. 2, p. 187, Table V-32), only one reconnection in 400 is a reconnection at the pole. Therefore, changing, or not changing, these fees will have a minor effect on OOR compared to changes in fees for reconnections at the meter.

As for fees for reconnection at the meter, ORA proposes increases no greater than $5.00, with a lesser increase ($1.50) for the least-costly next-day fee.

Subaccount 451.250 Service Establishment Charge

Members of populations that move more frequently than the overall residential class average (e.g. migrant workers and students) will incur service-establishment fees more often than the average residential ratepayer; these populations also would be likely to have lower incomes than the residential-class average. In SCE's previous rate case, the Commission stated that service fees weigh more heavily on the poor when it referred to:

> "the fact that an increase in the service charge would disproportionately impact low-income customers"
> [D.96-01-011, p. 72]

For this reason, ORA advocates lower service-establishment charges than SCE is proposing. ORA proposes that the present next-day service-establishment fee of $10.00 be increased modestly to $12.00, not $17.00 as proposed by SCE. ORA proposes an increase from the more popular same-day fee be raised from $17.50 to $22.00, rather than to SCE's proposed $27.00. This establishes a ten-dollar differential between the next-day and same-day connection fees, the same differential as in SCE's proposed fee schedule.

Subaccount 451.600 Field Assignment Charge

The present rate is $10. SCE proposes to increase the charge to $18. The charge is applied for field visits by SCE personnel in regard to a customer's unpaid bills. As noted above, SCE stated in a data response that it had not performed studies of the characteristics of customers whose service is disconnected for nonpayment. However, as

the field-assignment charge applies in cases of unpaid bills, it appears likely that the charge disproportionately affects low-income customers. Accordingly, ORA proposes the charge be increased only to $11, not to $18.

C. ACCOUNT 456

This account includes revenue from a variety of services. ORA has an adjustment to the subaccount for revenue from direct access fees.

Subaccount 456.401/402 Direct Access Service Fee Revenue

SCE's Application proposed an amount of $256,000. However, in response to an ORA data request, SCE discovered an error, and stated that the correct amount is actually $368,000. Accordingly, ORA recommends adoption of the $368,000 amount, an increase of $112,000.

V. CONCLUSIONS

SCE's proposed revenue requirement for the Customer Service Operations accounts should be reduced from $150,735,000 to $149,905,000 to reflect the adjustments presented in this chapter. Also, the uncollectibles factor adopted should be 0.311% rather than 0.326%.

In the interest of affordability, customer-service fees should be increased only moderately, as in ORA's proposed schedule of fees. And SCE's proposal to introduce a residential late-payment charge should be rejected.

CHAPTER 11

CUSTOMER SERVICE & INFORMATION EXPENSES

I. INTRODUCTION

Customer Service & Information Expense consists of three accounts: 907, 908 and 916. SCE requests an increase from the recorded adjusted amount of $24,747,000 to $33,756,000, an increase of $9,009,000. The majority of this requested increase is due, not to anticipated higher expenses, but to SCE's request to replace existing funding sources -- which SCE claims will no longer be available – by base-rate revenue. For example, SCE claims that the Pump Test program, presently funded entirely by Public Goods Charge (PGC) revenues, must be funded as an Operations and Maintenance (O&M) expense going forward. SCE claims that it cannot count on PGC funding being available after 2002.

II. SUMMARY

All of SCE's requested increase from year-2000 to year-2003 is in Account 908, Customer Assistance Expenses, which is the largest of the three CS&I accounts (more than 85% of the costs in the three accounts is in Account 908). ORA recommends rejection of some of SCE's proposed adjustments to Account 908. Specifically, ORA recommends rejection of SCE's proposal to replace PGC funding of Pump Tests and Tech Centers with O&M funding. ORA also recommends rejection of $2 million of the company's requested $3 million for additional Air Conditioning Cycling Devices. And ORA proposes an audit adjustment of $104,000 to Account 908, and minor audit adjustments to Accounts 907 and 916. Table 11-1 below summarizes SCE's and ORA's proposed amounts for these accounts, in thousands of dollars:

TABLE 11-1

	Account	SCE	ORA
907	Bus. Unit Mgmt/Support	3,906	3,902
908	Customer Assistance	29,645	25,010
916	Rate Communications	205	205
	TOTAL	33,756	29,116

III. ACCOUNT 908

SCE claims that Public Goods Charge (PGC) funding, which presently covers part of the expenses for Tech Centers and all the costs of Pump Tests, will not be available after 2002. SCE is requesting $1.272 million to replace such "lost" PGC funding for Tech Centers (CTAC and AgTAC) and $1.259 for Pump Tests, for a total of $2.531 million [SCE-5 vol. 3]. ORA opposes these requests. However, Assembly Bill 995, signed by the Governor on September 30, 2000, provides for the collection of energy-efficiency funds through the year 2011. SCE acknowledged this [data response to ORA-086, Q. 2] , but in another data response [ORA-043 Q. 7] cited passages from Commission decisions and rulemakings indicating an intent on the part of the Commission to change the *administration* of energy efficiency programs, possibly ending the utility companies' role as administrators and replacing them with other entities.

SCE stated that the Tech Center and Pump Test programs in question must continue even if SCE loses its role as program administrator, and that therefore, beginning in 2003, the expenditures presently funded via PGC revenues should instead be funded as O&M expenses.

ORA opposes this switch. Regardless of whether, or when, a change in energy-efficiency program administration might take place, the designation of a successor administrator is not a reason to alter the funding mix for energy-efficiency programs. ORA advocates that any successor administrator should, absent a change of policy by the Commission, have the same scope of authority as do the current administrators. Selected programs should not be singled out for special treatment Therefore, as PGC funding

through 2011 for energy-efficiency programs is provided for by AB 995, the Commission should reject SCE's proposed adjustment of $2.531 million.

SCE requested an additional $5.7 million in Account 908 for Load Control expenses. Three million dollars of the $5.7 million is for the acquisition of additional Air Conditioner Cycling Devices (ACCDs). ORA believes $2 million of the $3 million is not needed and should be denied; this adjustment is explained in Section V.

ORA also proposes an audit adjustment of $104,000 to Account 908 to reflect the elimination of "spot" bonuses; this adjustment is explained in Chapter 3 of ORA's "Report on the Results of Examination."

IV. ACCOUNTS 907 AND 916

SCE's requested amount for Account 907 (Business Unit Management and Support Expense) is $3,906,000 and is identical to the base-year amount. Similarly, SCE's requested amount for Account 916 (Rate Communications Expense) is $205,000 and is identical to the base-year amount. ORA proposes audit adjustments to Accounts 907 and 916 of $4,000 and $500, respectively, reflecting the elimination of "spot" bonuses. These adjustments are explained in Chapter 3 of ORA's "Report on the Results of Examination."

V. AIR CONDITIONER CYCLING DEVICES

On page 64 of SCE-5 Vol. 3 Chap III, SCE requests $3 million for material costs of new air conditioner (A/C) cycling devices expected to be purchased and deployed in 2003. ORA, while sympathetic to the difficulties of forecasting, believes that SCE's request is not supported by recent trends in A/C cycling. ORA therefore recommends SCE's allowance for 2003 be reduced to $1,000,000.

On page 56 of SCE-5 Vol. 3 Chap III, SCE says that there are currently about 111,000 participants in the program, and that at its peak, there were over 200,000 participants. SCE expects participation to increase again, to a level of approximately

170,000 customers. As justification for this expectation, SCE refers to D.01-04-006, which did in fact reopen the program to new participants, and created a modified version of the program that exposes participants to a greater amount of cycling in return for greater compensation.

Unfortunately, the estimate in participant growth SCE anticipates has not been borne out by recent enrollment trends. According to monthly reports SCE files with the Commission, participation in A/C cycling programs was 114,002 in October 2001. Participation dropped to 110,624 by July 2002. ORA does agree with SCE that an expectation of some enrollment growth in 2003 is reasonable, and we believe that the current, flat, trend in enrollment is a temporary phenomenon. In particular, ORA feels that the appropriate measure for forecasting is not overall participation in ACCP programs, but enrollment in the Enhanced program, which is a superior program for participants and is more likely to attract new participants in the future. Enrollment in the Enhanced ACCP program has risen to over 5,000 since it was introduced a year ago by D.01-04-006. However, ORA does not see sufficient evidence in this record to justify a need for 19,900 new devices in 2003.

Even if devices uninstalled at one location cannot be reinstalled at another, and if devices for the Base ACCP program cannot be reinstalled for use in the enhanced ACCP program, ORA only sees a need in 2003 that would match historical growth in the Enhanced ACCP. The November and December 2001 monthly reports on interruptible and outage programs shows that 15,000 devices were ordered in June of 2001, so there should still be approximately 10,000 of these newly ordered control devices available for new participants. Projecting current trends, there should still be 5,000 of the new devices left at the end of 2003. Further, even if the new devices were all used to replace existing devices[460], there would still need to be only enough devices to cover growth in the Enhanced ACCP, which currently runs at about 5,000 a year.

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[460] In response to DR-ORA-079 Question 5, SCE shows only 2,490 replacements occurring in 2001, and does not forecast any replacement installations for 2002, 2003, and 2004.

ORA wishes to encourage SCE in pursuing their A/C cycling programs, and understands that they have new marketing efforts underway. Additionally, there is a Commission Proceeding (R.02-06-001) open now which is discussing the future of Demand Response programs, including A/C cycling programs. If SCE's marketing programs are successful, or if R.02-06-001 mandates new efforts in the area of A/C cycling, it will be necessary to revisit the level of funding for A/C cycling devices. A source for additional funding could be R.02-06-001. It is possible that what now appears to be an overly optimistic forecast turns out to be merely a one-year delay in commencement of a very popular and successful A/C cycling program. In such a situation, there would be justification for an increase in funding for A/C cycling devices. However, until SCE updates their data on the progress of their A/C cycling programs, the $3,000,000 SCE is asking for now should be reduced to $1,000,000, and the issue brought up again only after a Decision in R.02-06-001.

VI. CONCLUSIONS

SCE's proposed test-year Customer Service and Information Expense (Accounts 907, 908 and 916) of $33,756,000 should be reduced by $4,640,000 to $29,116,000 for the reasons cited herein.