

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

Order Instituting Investigation into the November
2018 Submission of Southern California Edison
Risk Assessment and Mitigation Phase

I.18-11-006

**SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) INTERIM RISK
SPENDING ACCOUNTABILITY REPORT FOR 2016 AND 2017**

FADIA RAFEEDIE KHOURY
KRIS G. VYAS

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-6613
Facsimile: (626) 302-6997
E-mail: Kris.Vyas@sce.com

Dated: **March 14, 2019**

**SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) INTERIM RISK SPENDING
ACCOUNTABILITY REPORT FOR 2016 AND 2017**

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SPENDING ACCOUNTABILITY REPORT FOR 2016 AND 2017**

Pursuant to and in compliance with the guidance provided in the January 3, 2019 letter from the Director of the Energy Division of the California Public Utilities Commission, Southern California Edison Company respectfully submits the attached interim Risk Spending Accountability Report for 2016 and 2017.

Respectfully submitted,

FADIA RAFEEDIE KHOURY
KRIS G. VYAS

/s/ Kris G. Vyas

By: Kris G. Vyas

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-6613
E-mail: Kris.Vyas@sce.com

March 14, 2019

Attachment A

Southern California Edison Company's

Interim Risk Spending Accountability Report for 2016 and 2017

**Southern California Edison Company's Interim Risk
Spending Accountability Report for 2016 and 2017**

March 14, 2019

INTRODUCTION

Southern California Edison Company's (SCE's) Interim Risk Spending Accountability Report for 2016 and 2017 is organized into six sections and three appendices. The six sections are organized as follows: First, the Background section summarizes the regulatory background giving rise to the report, including Energy Division's guidance to SCE about the contents and format of this report. Second, SCE presents graphs of the recorded aggregate operations and maintenance (O&M) expenses and capital expenditures for 2016 and 2017 relative to what was authorized in the 2015 General Rate Case (GRC) for the safety, reliability and maintenance activities covered in this report. Together with the graphs, SCE offers a high-level summary explaining certain drivers for the variances.

Third, SCE offers important context that applies where, as here, the variance analysis involves multi-year rate cases using forecast-based ratemaking. Fourth, SCE describes how it chose the activities covered in this report. Fifth, consistent with direction from the Energy Division, SCE explains the process it used to derive authorized dollars for activities in the attrition years. Finally, the last section covers considerations specific to balancing and memo accounts.

The three appendices provide the following:

- Appendix 1 contains the required variance explanation for (a) expense activities with a difference of at least \$10 million (or a percentage difference of at least 20%) subject to a minimum difference of \$5 million; and (b) capital expenditures with a difference of at least \$20 million (or a percentage difference of at least 20%) subject to a minimum difference of \$10 million.¹

¹ For these activities meeting the materiality thresholds, the Energy Division also directed that SCE provide (a) a description of the programs, (b) location in 2015 and 2018 GRC testimony where the program is described, (c) a list of projects that were canceled or deferred within each program, and (d) projects not presented in either rate case but that were taken up anyway. Items (a) and (b) are in Appendix 2 where the balance of programs (even those not meeting the materiality threshold) are listed; item (c) is in Appendix 3. Item (d) is not applicable given that SCE ultimately sought authorization to recover costs for two new relevant programs—the Overhead Conductor Program and Grid Modernization—in the 2018 GRC.

- Appendix 2 contains *all* applicable activities, regardless of the materiality threshold.
- Appendix 3 lists all activities from Appendix 1 that were canceled or deferred.

During 2016 and 2017, SCE continued to focus on delivering safe and reliable service to its customers and to the communities it is privileged to serve. SCE prudently prioritized overall authorized spending on behalf of its customers. At times, SCE appropriately varied from what the Commission authorized when circumstances changed, needs emerged, or new and better solutions later appeared.

In addition, over the last seven years SCE has undertaken several initiatives to improve the effectiveness and efficiency of its work processes. This has helped SCE temper cost increases despite increasing workload. For example, SCE's GRC operating expense request in the 2018 GRC (for year 2018) was nearly \$130 million lower than what was previously authorized for 2015, even though costs have increased in areas such as pension and benefits and IT license renewals.²

I.

BACKGROUND

In D.14-12-025, the Commission revised the Rate Case Plan to incorporate a risk-based decision-making framework. The Commission adopted a new framework encompassing two new proceedings to support developing and implementing risk-based methodologies in the rate case filing. In addition, the Commission required that utilities file risk spending accountability reports to “assist in the goal of improving utility accountability for the ratepayer money spent on risk mitigation efforts.”³ The Energy Division was given the responsibility to develop the requirements and, ultimately, to review the filed reports.

² See A.16-09-001, Exhibit SCE-01, pp. 7-8 (testimony of SCE CEO Kevin Payne).

³ D.14-12-025, p. 43.

Throughout 2018, the Energy Division conducted a series of workshops to refine the scope and nature of the Spending Accountability Reports. Among other things, the Energy Division expanded the scope of the report beyond the spending on items associated with risk mitigation. The reports would also include all maintenance items, consistent with the statutory requirements specified in Public Utilities Code 591. On January 3, 2019, Energy Division Director Edward Randolph sent a letter to SCE requesting an interim Spending Accountability Report for specified activities⁴ covering years 2016 and 2017 (“Spending Accountability Report Letter,” or “Letter”).⁵ In addition to showing authorized versus actual spending for the record year (expressed in terms of dollars and percentages), the Spending Accountability Report Letter asks SCE to include a derivation of authorized amounts,⁶ and to discuss (where applicable) related balancing or memorandum accounts.⁷

The Letter attached a suggested template for presenting tables and other information in the interim reports. SCE has adhered to the general structure of the suggested template. For example, the tables found in the appendices are organized by functional area (generation, transmission, distribution, and other),⁸ for both O&M and Capital separated by years (2016 and 2017). The material contained in the appendices, as described above, provides the various categories of information requested by the Energy Division.

⁴ Specifically, the Energy Division required SCE to include “programs authorized or in effect during each record year that were identified as impacting safety or reliability within SCE’s Risk Informed Planning Process and Risk Evaluation Methodology filed as part of the 2018 GRC [see Exhibit SCE-01 and associated workpapers, served in A.16-09-001], as well as programs associated with a maintenance activity.”

⁵ The Energy Division directed that the interim Spending Accountability Report be filed and served by February 28th, 2019. On February 22nd, SCE requested an extension of two weeks to file the Interim Report. The request was duly granted by Ms. Alice Stebbins, Executive Director of the Commission, on February 26.

⁶ See Section V. below.

⁷ See Section VI. below.

⁸ SCE uses the category of “other” because that terminology is found in Attachment A of the Spending Accountability Report Letter.

II.

OVERVIEW OF AGGREGATE SPENDING VERSUS AUTHORIZED IN SELECT SAFETY, RELIABILITY AND MAINTENANCE PROGRAMS

A. O&M

For 2016 and 2017, SCE spent approximately \$95 million and \$85 million, respectively, less than authorized on O&M for the applicable safety, reliability and maintenance activities, as show in the table below.

*Table II-1
O&M Spending Accountability Report Variances by Function*

Function	2016			2017		
	Authorized	Recorded	Variance	Authorized	Recorded	Variance
Distribution	\$458,064	\$448,447	(\$9,617)	\$463,790	\$460,653	(\$3,137)
Generation	\$245,481	\$192,824	(\$52,657)	\$249,866	\$193,193	(\$56,673)
Other	\$432,218	\$414,249	(\$17,969)	\$440,592	\$438,707	(\$1,885)
Transmission	\$173,985	\$158,737	(\$15,248)	\$176,307	\$152,507	(\$23,800)
Grand Total	\$1,309,748	\$1,214,257	(\$95,491)	\$1,330,555	\$1,245,060	(\$85,495)

The figures below depict the same information within the context of the “total company authorized spending for each record year.”⁹

⁹ Letter, p. 2.

Figure II-1
2016 O&M GRC Authorized vs. Recorded

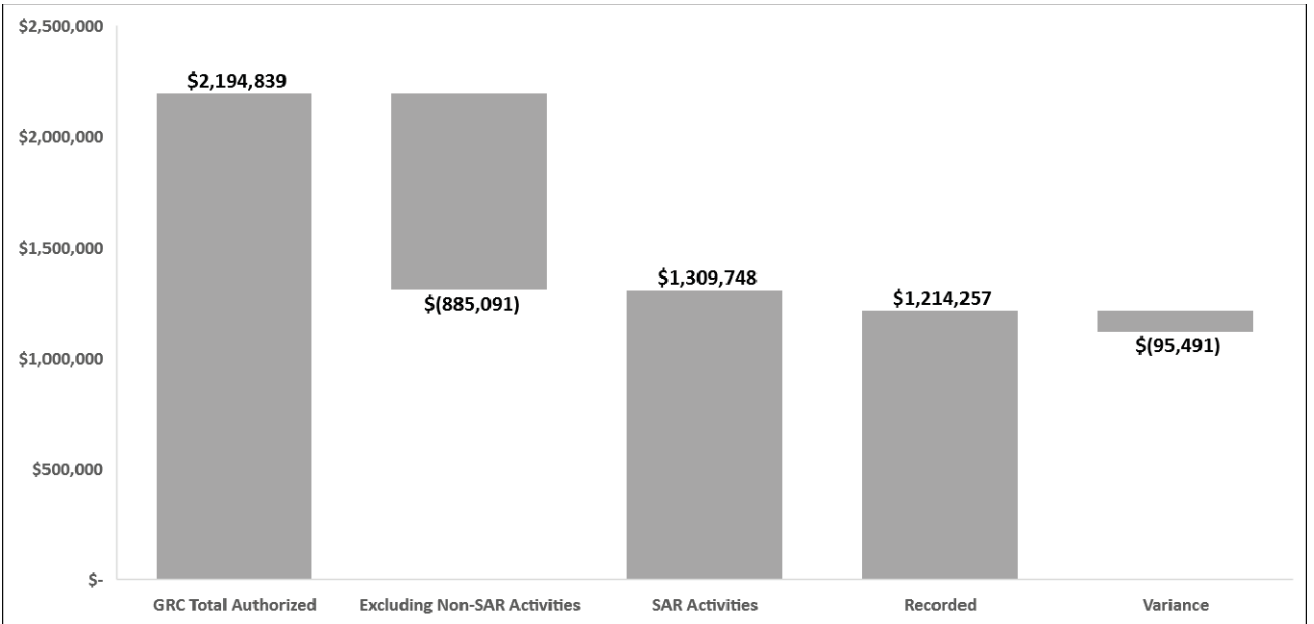
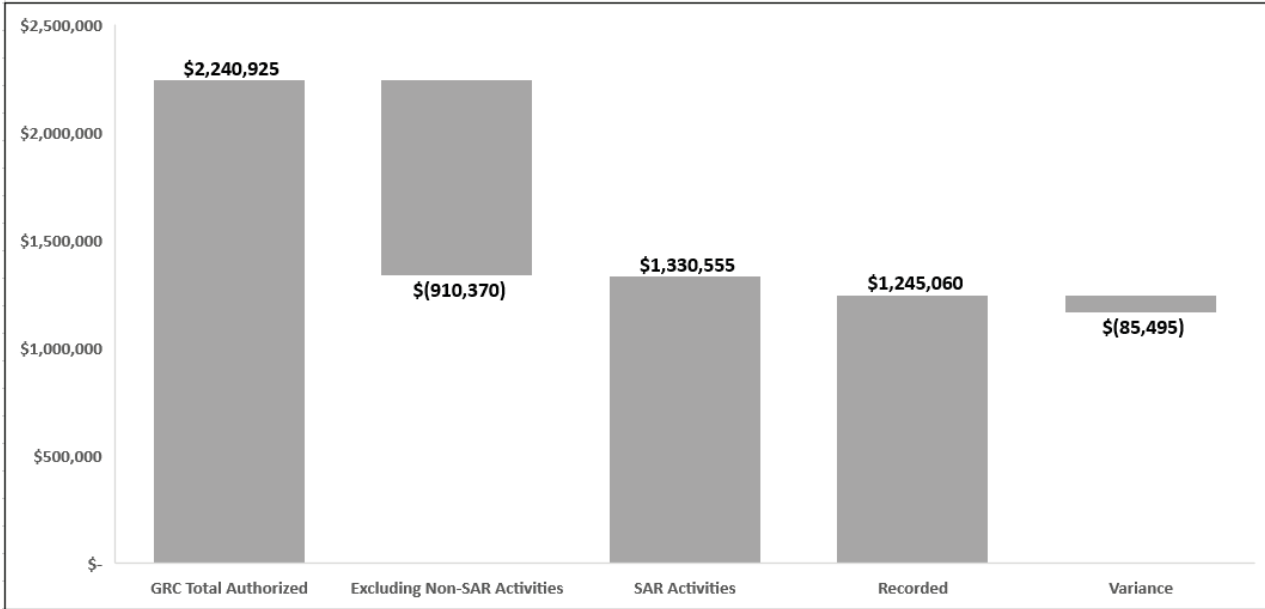


Figure II-2
2017 O&M GRC Authorized vs. Recorded



SCE experienced the above-illustrated levels of O&M underspend in large part due to savings it obtained through Operational Excellence and similar initiatives that increased efficiency. Some of these items are described below. The Commission recognized and encouraged this result when it established the post-test year ratemaking mechanism for SCE’s 2015 GRC (i.e., the authorized spending for 2016 and 2017): “When deciding on an appropriate PTYR mechanism to use, we target a mechanism that is simple; accurately aligns with how costs are incurred for the utility; and gives the utility an incentive to manage costs while enhancing productivity.”¹⁰

Although the aggregate O&M spending was lower than authorized, SCE notes that it did overspend in vegetation management (as described in Section II.A.3(a) below). Examples of some O&M variances are below:

¹⁰ See D.15-11-021, p. 390.

1. Generation

a) Mountainview

SCE renegotiated a General Electric contract service agreement in 2015, resulting in lower operating costs. These savings of approximately \$27 million in 2016 and \$22 million in 2017 were material, because contract service agreement costs have historically represented a significant percentage of the plant's total annual O&M expense.

b) Power Procurement

Energy Procurement Management (EPM) labor expenses were approximately \$13 million and \$18 million below authorized for 2016-2017, respectively, due to employee attrition, a delay in filling vacancies, and reduced staffing relative to the authorized level owing to SCE's continuing effort to manage costs.¹¹ Non-labor expenses were less than authorized due to centralizing corporate functions, reducing use of contractors and consulting services, and incurring less employee travel and related training.

2. Transmission

a) Substation Construction & Maintenance

The O&M for substation construction and maintenance was approximately \$6 million below authorized for each of 2016 and 2017, primarily due to the reduced scope of Shop Services and Instrumentation Division functions at the switchyard near SONGS, as well as lower costs from overhead organizations support.

¹¹ Also, recorded labor was lower than the authorized level due to recategorizing costs and assigning them to various other SCE organizations such as Finance, IT, HR and Regulatory Affairs.

b) **Transmission – Line, Structure, Road, and Right-of-Way Maintenance**

SCE underspent approximately \$10 million for 2016 and \$4 million for 2017. This occurred in part because in 2015 we moved away from a “calendar-based” wash schedule for insulators to a “condition-based” wash program. The change was intended to make our insulator maintenance program more effective by restricting the washing activity to insulators that visually indicated an undesirable degree of contamination. This helped reduce unnecessary washing activity. The new program requires first visually inspecting a circuit for contamination or signs of imminent failure before any hot-washing is conducted.

3. **Distribution**

a) **Inspection of Distribution Overhead and Underground Lines and Equipment**

The variance analysis shows an ostensible underspend of approximately \$12 million in 2017.¹² This account includes both the cost of the work being done, *offset by* credits from third parties. The Commission authorized a forecast of approximately \$2 million of credits. But SCE realized a total of \$9 million of credits. The additional \$7 million of credits necessarily reduces the total costs that are mapped to this activity. Thus, in the context of this report, the level of work in inspecting distribution lines and equipment can appear to be lower *than the actual level of work SCE performed*. When this \$7 million delta is accounted for, the overall O&M variance for this activity decreases to approximately \$5 million. However, that \$5 million variance does not actually represent an underspend. Because of the way costs have been mapped in this report, the costs are simply reflected in a different account—Distribution

¹² The variance in 2016 did not meet the specified threshold for this report.

Intrusive Pole Inspections.¹³ In 2017, SCE continued to maintain compliance with General Order 165 inspection requirements.¹⁴

b) Vegetation Management and Other Planned Maintenance of Distribution Overhead and Underground Lines and Equipment (Accounts 593.120 and 588.261)

On planned maintenance activities, SCE overspent almost \$25 million in 2016, and \$38 million in 2017. Specifically, SCE overspent in vegetation management by approximately \$35 million and \$45 million in 2016 and 2017, respectively.¹⁵ SCE underspent approximately \$10 million in 2016 and \$7 million in 2017 on other planned maintenance of distribution overhead and underground lines and equipment. That is because SCE's forecast assumed a certain level of follow-up maintenance work that would result from inspections and field observations. However, the recorded costs in 2016 reflect a somewhat lower volume of maintenance items found during inspections. Moreover, SCE realized lower cost-pers because of operational efficiencies.

4. Other

a) Corporate Security

The \$16 million and \$18 million underspend in 2016 and 2017, respectively, was primarily driven by SCE's decision not to proceed with implementing the workplace security and grid protection improvements project. This project would have involved adding metal detectors and X-ray scanning devices at multiple SCE locations. The decision not

¹³ Please refer to the variance analysis in Appendix 1 for Account 583.120 (Inspection of Distribution Overhead and Underground Lines and Equipment). As indicated there, the costs are reflected in the account for Distribution Intrusive Pole Inspections.

¹⁴ See, e.g., Southern California Edison's Annual Report of 2017 Distribution Inspections Filed Pursuant to General Order No. 165 (filed July 2, 2018 in R.96-11-004).

¹⁵ The Commission approved recovery of 2016 overspend in the D.19-01-006 adopting SCE's Catastrophic Events Memorandum Account application for 2015-2016.

to proceed was due to the negative impact on worker morale and significant operational adjustments required (e.g., staggered work schedules). Also, it appeared the measures ultimately may not materially alleviate threats.

B. Capital

With respect to capital spending in 2016-2017, SCE underspent on the covered safety, reliability and maintenance activities by approximately \$121 million in 2016, and then overspent by approximately \$77 million in 2017. Please refer to the table below.

***Table II-2
Capital Spending Accountability Report Variances by GRC Category***

Function	2016			2017		
	Authorized	Recorded	Variance	Authorized	Recorded	Variance
Distribution	\$1,604,773	\$1,690,681	\$85,335	\$1,636,869	\$1,680,681	\$43,813
Generation	\$127,541	\$123,700	(\$3,841)	\$130,092	\$88,424	(\$41,668)
Other	\$460,219	\$405,975	(\$54,244)	\$469,423	\$576,664	\$107,241
Transmission	\$989,462	\$840,959	(\$148,504)	\$1,009,252	\$976,950	(\$32,302)
Grand Total	\$3,181,995	\$3,060,742	(\$121,254)	\$3,245,635	\$3,322,719	\$77,084

The graphs below present the same information within the context of the total company GRC-authorized spending for each record year.

Figure II-3
2016 Capital GRC Authorized vs. Recorded

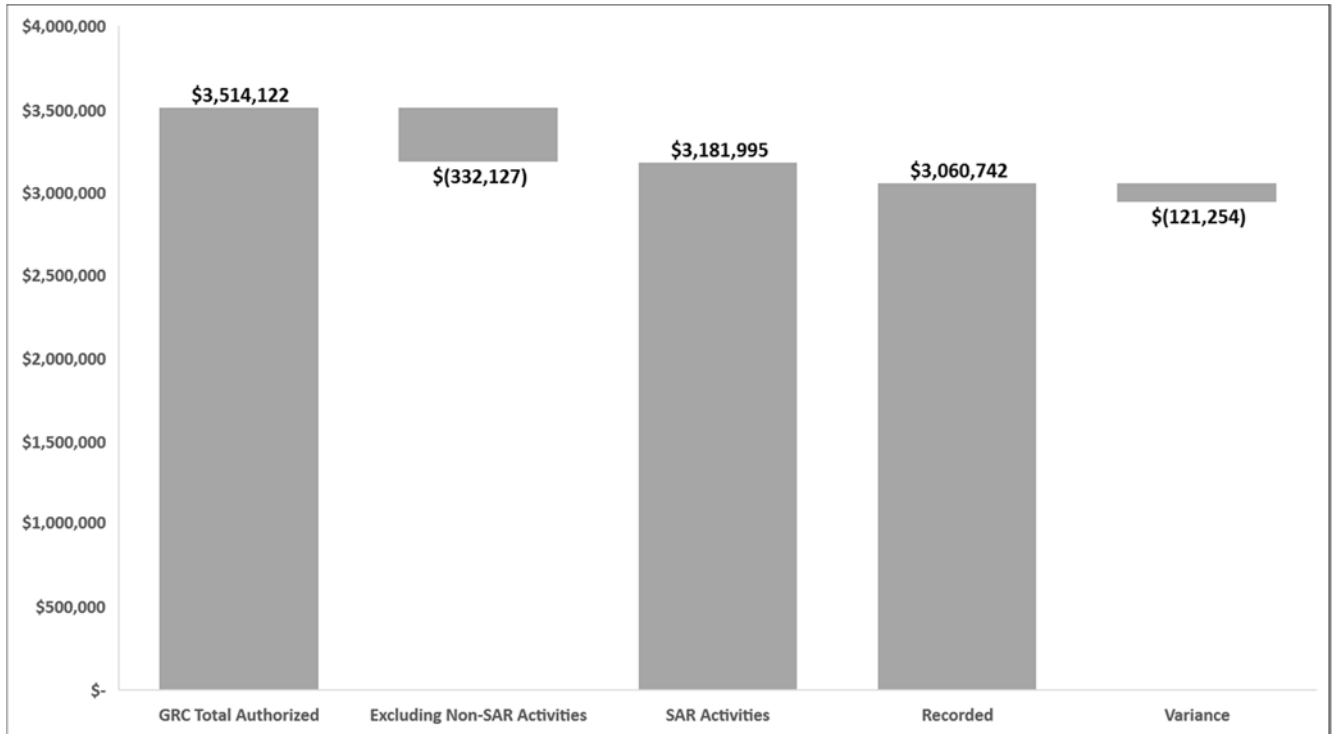
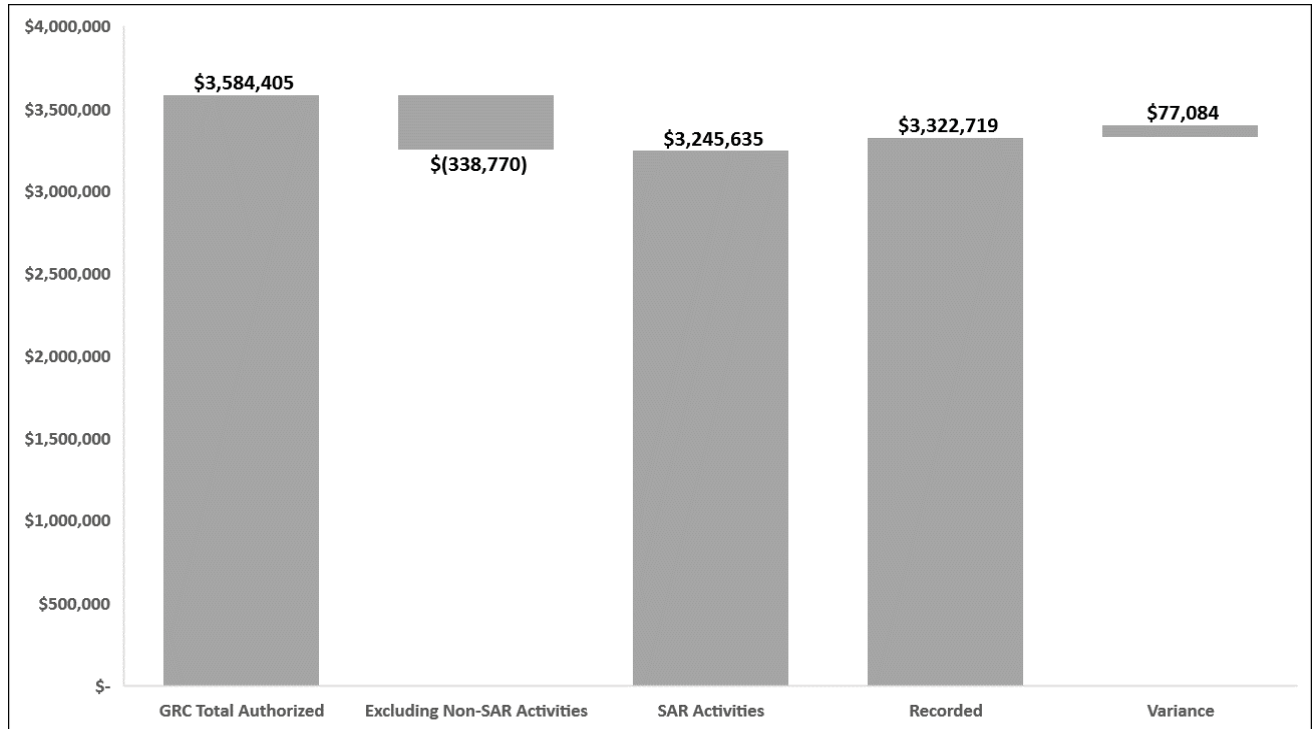


Figure II-4
2017 Capital GRC Authorized vs. Recorded



Below are examples of some variances by function.

1. Generation

For 2016, SCE’s overall spend on generation activities is within \$4 million of what was authorized. For 2017, SCE deferred several hydro projects, resulting in underspend of approximately \$42 million.

2. Transmission

For 2016-2017 combined, SCE recorded approximately \$181 million less than authorized for all safety, reliability and maintenance activities covered in this report (not just

those meeting the materiality threshold). Although SCE significantly underspent in the large construction programs (Transmission System Planning and Distribution System Planning), this was partially offset by significant spending above authorized for transformers, circuit-breakers, and maintenance for the transmission line rating remediation program, and planned and reactive maintenance for transmission and substation facilities.

3. Distribution

For 2016-2017 combined, SCE recorded approximately \$129 million more than authorized for all safety, reliability and maintenance activities covered in this report (not just those meeting the materiality threshold). It should be noted that SCE spent approximately \$236 million on SCE's overhead conductor program (OCP), a new safety program undertaken in between SCE's 2015 and 2018 GRCs.

OCP aims to mitigate the substantial public safety risks associated with energized downed wires. This program was not included in SCE's 2015 GRC, and thus was not a part of authorized spend. But SCE felt strongly that it needed to undertake the safety-based program in light of the analysis that SCE performed as it moved to risk-informed decision making. This is an example of SCE using management discretion to prudently undertake safety programs whenever needed, even if it means pivoting from prior plans and re-allocating authorized GRC funding from one area to another.

III.

SCE'S INTERIM REPORT, PLACED IN CONTEXT

SCE appreciates the opportunity to present the data contained in this report and looks forward to further dialogue with Energy Division and with interested parties regarding the information. SCE respectfully notes that it is important to place this report in its proper context. The report compares SCE's recorded spending for selected activities with the amounts that the Commission had authorized. The key starting point in the Commission's oversight here is the

Commission's examination of SCE's 2015 GRC forecasts. The Commission has confirmed, in an unbroken line of cases, that these forecasts only represent reasonable **estimates** of what the utility expects to spend in a given area.¹⁶

SCE's 2015 GRC encompassed test year 2015, and attrition years 2016 and 2017. SCE followed the schedule established by the Commission and presented its forecasts in 2013. The Commission issued its final GRC decision in November 2015.¹⁷ Thus, by the time SCE received the Commission's guidance on what SCE was authorized to spend in connection with its forecasts, those forecasts were more than two years old. By the time SCE actually recorded spend for years 2016 and 2017, the forecasts were, respectively, three years and four years old. In the intervening years, conditions changed, new opportunities to improve operations and gain efficiencies were found, and additional needs emerged, as depicted in a few of the examples provided above.

In addition, this Spending Accountability Report covers years 2016 and 2017, the attrition years in SCE's 2015 GRC cycle. The authorized spending for those years was established through an overall attrition year adjustment, rather than a detailed examination and decision regarding the individual forecasts for those years.¹⁸

The Commission has repeatedly recognized that actual spending can differ from authorized spending, and that utilities have the flexibility to apply their best judgment in managing the business.¹⁹ In providing guidance on spending accountability reports, the Energy Division has confirmed that "a utility is allowed the flexibility to reprioritize the authorized

¹⁶ See, e.g., D.08-09-026, Section 6.2 ("A GRC is used to set rates based on reasonable estimates of the costs the utility will incur in providing service. It is not generally intended to set a specific budget. Actual costs for the test year, including plant additions, may vary.").

¹⁷ D.15-11-021.

¹⁸ See D. 15-11-021, p. 2 ("This decision also authorizes attrition rate adjustments of \$209 million (4.04%) for 2016 and an additional \$272 million (5.04%) for 2017 ...").

¹⁹ See, e.g., *Re California-American Water Co.*, D.02-07-011, (mimeo), pp. 6-7, 2002 Cal. PUC LEXIS 423, 220 P.U.R. 4th 556.

funds in order to ensure safe and reliable operations.”²⁰ The Commission has stated that “[u]nder GRC ratemaking, the utilities are given an authorized revenue requirement to manage various parts of their utility business. Recognizing that the utilities may need to re-prioritize spending and spend more or less in a particular area of their business, the Commission affords them substantial flexibility to decide how much to spend in any particular area.”²¹ Moreover, the Commission has specifically recognized that “new programs or projects may come up, others may be cancelled, and there may be reprioritization. This process is expected and is necessary for the utility to manage its operations in a safe and reliable manner.”²²

Lastly, the Energy Division itself has noted that it is requesting an “interim” report, and has confirmed that this is an evolving area for the Energy Division.²³

IV.

APPLICABLE SAFETY, RELIABILITY, AND MAINTENANCE-RELATED PROGRAMS

The Spending Accountability Report Letter directed that SCE include a list of all programs “authorized or in effect during each record year that were identified as impacting safety or reliability within SCE’s Risk Informed Planning Process and Risk Evaluation Methodology filed as part of the 2018 GRC, as well as programs with a maintenance activity.”

²⁰ Energy Division, Safety-Related Spending Accountability Report for Southern California Edison (May 2017), available at http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Safety/SCESafety-RelatedSpending.pdf

²¹ CPUC Resolution E-4464 (May 10, 2012) at p. 7.

²² D.11-05-018, at p. 27.

²³ See Spending Accountability Report Letter (“The Energy Division continues to refine its proposal for the outline and template for these reports. Meanwhile, the Energy Division endeavors to prepare SCE to comply with the risk spending verification requirements of the new GRC framework by directing SCE, via this letter, to file annual ‘interim’ Risk Spending Accountability Reports for the years between the Energy Division’s Safety Action Plan report covering 2015 and the first Risk Spending Accountability Report covering 2021.”)

In referring to SCE's 2018 GRC, the Energy Division appears to be pointing to the risk mapping of GRC activities to risk events, outcomes and impacts, as shown by SCE in A.16-09-001.²⁴

This mapping:

- Examined each GRC activity;
- Identified what type of risk event it would be able to mitigate; and
- Outlined potential outcomes and impact dimensions for that risk event, using a framework consistent with SCE's Safety Modeling Assessment filing (A.15-05-002) and the guidance the Commission provided in D.16-08-018.

This mapping served as the basis for the Energy Division's report on Safety Related Spending for 2015. The Energy Division submitted that report in connection with A.16-09-001. SCE faced two challenges in utilizing the Risk Mapping from A.16-09-001 for purposes of the Spending Accountability Report. These two challenges are described below.

A. Change in Criteria

First, SCE had previously identified the appropriate safety-related programs by selecting any activity that scored in the Safety Impact dimension. For the Spending Accountability Report, SCE expanded this criteria to include programs that scored in the Reliability Impact Dimension. However, because there is not a Maintenance Impact dimension, SCE had to conduct a manual review of all programs that had not scored as either Safety- or Reliability-related. SCE included in the Spending Accountability Report any program that met the criteria specified by the Spending Accountability Report Letter.

²⁴ See A.16-09-001, p. 37 (sub-section regarding workpaper).

B. Timing Issues

The second challenge SCE encountered was a matter of timing. Authorized amounts for 2016 were determined by the 2015 GRC Decision (D.15-11-021), which in turn were derived in some measure from SCE's presentation of GRC activities in SCE's Test Year 2015 GRC application. But as discussed above, activities qualifying for the Spending Accountability Report were based on the risk modeling of GRC activities as presented in the 2018 GRC. SCE had necessarily made certain changes to its GRC presentation between the two GRC applications. In some cases, this resulted in an imperfect match of authorized numbers to recorded numbers for the 2018 GRC activities. SCE attempted to reconcile these items by matching GRC accounts as closely as possible.

V.

DERIVATION OF AUTHORIZED DOLLARS

On November 12, 2013, SCE filed Application (A.)13-11-003 requesting, among other things, an increase in its base revenue requirements for the Test Year 2015 and Post-Test Years 2016 and 2017.²⁵

The Commission issued the 2015 SCE GRC Decision (D.15-11-021) on November 5, 2015. The GRC Decision adopted, among other things, a Post-Test Year Ratemaking (PTYR) mechanism that escalates the adopted 2015 CPUC-jurisdictional capital additions in 2016, and again in 2017. SCE derived the 2016 and 2017 authorized capital expenditures presented in the Spending Accountability Report using the authorized capital addition escalation percentage as a proxy for adopted attrition-year capital expenditures. The Spending Accountability Report generally does not include costs for activities that currently are recovered outside the GRC. A few examples of such costs are Charge Ready, mobile home park capital investments, and

²⁵ SCE's base revenue requirements include the costs of operating, maintaining, and investing in SCE's generation, distribution, transmission, and general functions, and exclude costs of fuel purchasing and power procurement.

Aliso Canyon. The Spending Accountability Report does, however, include FERC-jurisdictional capital and O&M reviewed in the GRC.

For operations and maintenance (O&M) related expenses, the Energy Division approved SCE Advice Letter (AL) 3314-E (as supplemented by 3314-E-A and 3314-E-B), for the 2016 GRC PTYR Revenue Requirement (with an effective date of November 1, 2016), as well as SCE AL 3514-E for the authorization of the 2017 PTYR Revenue Requirement (with an effective date of December 20, 2016). This was in accordance with the 2015 GRC Decision. The PTYR mechanism adjusts SCE's authorized O&M expense using various escalation factors for labor, non-labor, medical, and other benefit expenses between GRC Test Years. This helps provide SCE with additional revenues to cover its cost of doing business.

VI.

PROGRAMS RECORDED IN BALANCING OR MEMORANDUM ACCOUNTS

The Spending Accountability Report Letter required SCE to provide, if applicable, the balancing or memorandum account(s) where the spending for each program is recorded, the recorded year balances, and the disposition of any request for cost recovery. SCE has identified three regulatory mechanisms that are relevant.

First, in SCE's 2015 GRC decision, the Commission adopted the Pole Loading and Deteriorated Pole Balancing Account (PLDPBA).²⁶ This account covers certain, but not all, pole-related activities. The balancing account is subject to a cap of 15% above authorized revenue requirement for the cumulative total over the years 2016 and 2017. Because activity variances are expressed in direct dollars rather than revenue requirements, this aspect of the PLDPBA directly impacts how the variances for the PLDPBA activities can be interpreted. SCE is not managing to the individual activities, but both O&M expense and capital expenditures recorded

²⁶ See D.15-11-021, pp. 143-144.

to the PLDPBA on that two-year, cumulative revenue requirement basis. The table below outlines the activity recorded in the PLDPBA for both years.

Table VI-3
Pole Loading & Deteriorated Pole Balancing Accounts

Pole Loading & Deteriorated Pole Balancing Accounts							
	A	B	C	D	E	F	G
	Beginning Balance	Transfer To Base Bal Account	Authorized	Recorded 1/	(Over)/ Under Collection A+B+C+D	Interest	Ending Balance E+F
Year 2016	(36,181)	36,181	(8,668)	(34,663)	(43,331)	(162)	(43,493)
Year 2017	(43,493)	43,493	(35,612)	38,311	2,699	(82)	2,617

1/ Includes any prior year adjustments

Second, in SCE’s 2015 GRC decision the Commission also adopted a Safety Reliability Investment Incentive Mechanism (SRIIM).²⁷ The aspect of this mechanism that is relevant here is the capital expenditures for seven key activities covering major safety and reliability-related expenditures. Under the SRIIM, the revenue requirement resulting from any underspending of the capital expenditures on a cumulative basis (cumulative across all three years of the rate case cycle and across all seven activities) will be refunded. Again, this aspect of the mechanism impacts how the variances for those activities can be interpreted. On the one hand, the variances are in direct dollars, and for the calendar years 2016 and 2017. On the other hand, SCE managed to the total expenditure target across all seven activities, and across the cumulative expenditures over the years 2015-2017. While certain other features of the SRIIM allow exceptions to this refunding aspect of the mechanism, none of those exceptions were invoked for the 2015-2017 cycle.²⁸

Third, there are costs reflected in this report that are recorded in the Catastrophic Event Memorandum Account (CEMA). In Resolution E-3238, dated July 24, 1991, the Commission authorized SCE to establish a CEMA to record costs associated with: (1) restoring utility service

²⁷ See D.15-11-021, pp. 39-41.

²⁸ See Advice Letter 3775-E, and subsequent approval dated May 16, 2018.
<https://www1.sce.com/NR/sc3/tm2/pdf/3775-E.pdf>

to its customers; (2) repairing, replacing, or restoring damaged utility facilities; and (3) complying with governmental agency orders from declared disasters. In A.18-03-004, SCE filed an application to seek recovery of costs recorded in the CEMA for the 2015-2016 Drought costs and for 2016 catastrophic Firestorms (Erskine, Sand, and Blue Cut). The Commission in D.19-01-006 authorized SCE recovery of approximately \$46.7 million of drought-related vegetation management in 2015 and 2016 and found \$17.6 million of capital reasonable. This capital was associated with restoring power following wildfires that occurred in 2016.²⁹

²⁹ SCE has not yet filed for recovery of amounts recorded in 2017.

Appendix 1 to Attachment A

Spending Accountability Report Variances for Activities Meeting Variance Thresholds

Generation 2016 O&M

Activity	2016 Authorized (\$000)	2016 Recorded (\$000)	2016 Variance (\$000)	2016 Variance (%)	Variance Explanation
554 – Mountainview	42,268	15,593	(26,675)	(63%)	Variance due to underspend for GE Contract Services Agreement (CSA), which was re-negotiated in 2015. CSA costs have historically been a significant percentage of the plant's total annual O&M expense.
557 - Power Procurement	43,745	30,457	(13,288)	(30%)	Energy Procurement Management (EPM) labor expenses were below authorized due to employee attrition, a delay in filling vacancies, and reduced staffing relative to the authorized level as part of our continuing effort to manage costs. Also, recorded labor was lower than the authorized level due to transfer of costs to various other SCE organizations - Finance, IT, HR and Regulatory Affairs. Non-labor expenses were less than authorized due to centralizing corporate functions, reducing use of contractors and consulting services, and incurring less employee travel and related training.
545 - Maintenance Of Misc. Hydraulic Plant	17,333	9,805	(7,528)	(43%)	The main factors contributing to the lower-than-adopted recorded expense were the ongoing California drought. Starting in approximately 2012, the ongoing drought has significantly reduced the generation output of SCE's Hydro fleet, compared to historical average levels. The lower generation output has also decreased the need for and frequency of equipment-breakdown repairs; this reduced expenses for repair parts, lowered overtime labor costs for maintenance personnel, and shrunk other related costs (e.g., contract expense).

Generation 2017 O&M

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
554 - Mountainview	42,631	20,737	(21,894)	(51%)	Variance due to underspend for GE Contract Services Agreement (CSA), which was re-negotiated in 2015. The re-negotiation efforts led to better contract pricing for SCE. CSA costs have historically made up a significant percentage of the plant's total annual O&M expense.
557 - Power Procurement	44,756	26,532	(18,224)	(41%)	Energy Procurement Management (EPM) labor expenses were below authorized due to employee attrition, a delay in filling vacancies, and reduced staffing relative to the authorized level as part of our continuing efforts to manage costs. Also, recorded labor was lower than the authorized level due to transfer of costs to various other SCE organizations - Finance, IT, HR and Regulatory Affairs. Non-labor expenses were less than authorized due to centralizing corporate functions, reducing use of contractors and consulting services, and incurring less employee travel and related training.
539 - Misc. Hydraulic Power Generation Expenses	34,310	24,831	(9,479)	(28%)	Starting in approximately 2012, the ongoing drought has significantly reduced the generation output of SCE's Hydro fleet compared to historical average levels. Lower generation output has reduced operating expenses. These operating expenses include overtime labor costs for operating personnel, as well as items such as cleaning supplies and office supplies. Operational efficiency improvements were achieved by centralizing former SCE Hydro and Generation employees into other SCE organizations (e.g., Human Resources, IT and Finance) and other Hydro staffing reductions that occurred in late 2012, and again in late 2013.

Generation 2017 O&M

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
					These improvements further contributed to the variance between forecast and recorded expenses.

Generation 2016 Capital

Activity	2016 Authorized (\$000)	2016 Recorded (\$000)	2016 Variance (\$000)	2016 Variance (%)	Variance Explanation
Hydro Capital – Misc Electrical	32,926	1,815	(31,111)	(94%)	Lower-than-forecast CAPEX occurred because Hydro capital projects originally forecast to occur were deferred to later years. Includes Sub-Station Refurbishment - Lee Vining and Minaret were postponed.
Dams and Waterways	18,588	3,538	(15,050)	(81%)	Lower-than-forecast CAPEX occurred because Hydro capital projects originally forecast to occur were deferred to later years. Includes Rush Creek Projects (Dam Updates, Agnew Tram & Powerline).
Mountain View -- Specific	0	62,256	62,256	N/A	Advanced Gas Path and Dry Low Nox (AGP/DLN) Combustion Turbine (CT) upgrades were incorporated into the new GE CSA.
Mountain View – Blanket	1,154	(23,928)	(25,082)	(2174%)	Materials were charged to Mountainview Spare Parts WBS in 2015 but were corrected to Advanced Gas Path and Dry Low Nox upgrade in 2016.
Hydro Capital – Specific NHD	11,784	(532)	(12,316)	(105%)	Lower-than-forecast CAPEX occurred because Hydro capital projects originally forecast to occur were deferred to later years. Includes Hydro Re-licensing - Mammoth Pool HB Valve and Big Creek.
Hydro Capital – Blanket Division	0	10,244	10,244	N/A	Actual costs related to Advanced Gas Path and Dry Low Nox (AGP/DLN) Combustion Turbine (CT) upgrades were inadvertently charged to this WBS. Correction was made in 2017 to transfers costs from Hydro Capital to AGP/DLN.

Generation 2017 Capital

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
Hydro Capital – Misc Electrical	33,584	4,799	(28,785)	(86%)	Lower-than-forecast CAPEX occurred because Hydro capital projects originally forecast to occur were deferred to later years. Includes Sub-Station Refurbishment - Lee Vining and Minaret - transferred to T&D and postponed.
Hydro Capital – Specific NHD	12,020	126	(11,894)	(99%)	Lower-than-forecast CAPEX occurred because Hydro capital projects originally forecast to occur were deferred to later years. Includes Hydro Re-licensing - Mammoth Pool HB Valve and Big Creek.

Transmission 2016 O&M

Activity	2016 Authorized (\$000)	2016 Recorded (\$000)	2016 Variance (\$000)	2016 Variance (%)	Variance Explanation
571.150 - Transmission Line, Structure, Road, and Right-Of-Way Maintenance	31,327	21,764	(9,563)	(31%)	In 2015, SCE moved away from a “calendar based” wash schedule to a “condition based” wash program. The change was intended to improve the effectiveness of our insulator maintenance program by limiting the washing activity to insulators that visually indicated an undesirable degree of contamination. This would help eliminate unnecessary washing activity. The new program requires visually inspecting a circuit for contamination or signs of imminent failure before any hot-washing is conducted. Road and Right-of-Way Maintenance saw less grading requirements compared to the historical average.
568.150 – Substation Construction & Maintenance – Supervision of Transmission Substation Maintenance	16,632	10,381	(6,251)	(38%)	Underrun primarily occurred due to the reduced scope of Shop Services Instrumentation Division (SSID) functions at the switchyard near SONGS, as well as lower costs associated with overhead organizational support.

Transmission 2017 O&M

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
568.150 – Substation Construction & Maintenance – Supervision of Transmission Substation Maintenance	16,958	11,341	(5,617)	(33%)	Underrun primarily occurred due to the reduced scope of Shop Services Instrumentation Division (SSID) functions at the switchyard near SONGS, as well as lower costs associated with overhead organizational support.

Transmission 2016 Capital

Activity	2016 Authorized (\$000)	2016 Recorded (\$000)	2016 Variance (\$000)	2016 Variance (%)	Variance Explanation
TSP Projects	232,311	76,943	(155,368)	(67%)	Underrun primarily due to licensing and contractor/construction delays. An example of licensing delays is Alberhill/Valley-Ivyglen (VIG). Examples of contractor/construction delays are Santa Barbara & Moorpark-Newbury.
DSP Substations	145,199	60,599	(84,600)	(58%)	Underrun driven by local permitting and construction delays to major projects.
Circuit Breakers	24,863	49,849	24,986	100%	Installed more circuit breakers than originally planned in order to maintain grid reliability through circuit automation.
Transformer Banks	67,961	104,905	36,944	54%	Higher material expenses and additional engineering and project support costs than previously forecast. Greater demand and load on the system requires larger transformer banks which are more expensive. The addition of solar power with customers generating power into the distribution system also requires more robust and expensive transformers in order to maintain voltage balance and system reliability.

Transmission 2016 Capital

Activity	2016 Authorized (\$000)	2016 Recorded (\$000)	2016 Variance (\$000)	2016 Variance (%)	Variance Explanation
Trans Mtce Planned	6,347	27,888	21,541	339%	Due to the age and condition of our transmission infrastructure, SCE implemented a new planned capital maintenance approach in 2013 that increased the number of maintenance items addressed in the planned capital maintenance category. Prior to 2013, SCE's planned capital maintenance primarily focused on items that needed immediate replacement. Increased maintenance drove recorded costs to exceed authorized values.
Misc Equip	25,884	67,065	41,181	159%	Transmission Substation Misc Equipment variance due to increased requirements concerning Substation Physical Security. Expenditures represent spending to enhance power feeds for security equipment and lighting, provide ballistic barriers around critical equipment, install concealment measures, and replace or modify substation fences and gates against copper theft.
Spare Parts	2,695	13,496	10,801	401%	Overrun driven primarily by 'AA' (500/220 kV) Bank Transformer purchase (100% FERC-jurisdictional).
Projects (TLRR)	29,146	58,231	29,085	100%	SCE committed to a change in program strategy to achieve compliance with GO 95 requirements by 2025. This required substantial investment in Transmission Line Rating Remediation (TLRR), which is reflected in our 2016 recorded costs (~87% FERC-jurisdictional).
Operational Facilities	5,864	16,342	10,478	179%	Overrun primarily driven by Control Building Modernization upgrade at Mira Loma, Eldorado, Vincent & Devers substations. (FERC-jurisdictional).

Transmission 2017 Capital

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
Circuit Breakers	25,360	44,179	18,818	74%	Installed more circuit breakers than originally planned in order to maintain grid reliability through circuit automation.
DSP Substations	148,103	73,193	(74,910)	(51%)	Underrun driven by licensing delays and changes in load growth forecasts.
LADWP & PV	45,565	22,251	(23,314)	(51%)	Underrun primarily driven by LADWP DC Electrode Replacement project delay (100% FERC-Jurisdictional).

Transmission 2017 Capital

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
Trans Mtce PL	6,474	32,677	26,203	405%	Due to the age and condition of our transmission infrastructure, SCE implemented a new planned capital maintenance approach in 2013. This new approach increased the number of maintenance items addressed in the planned capital maintenance category. Prior to 2013, SCE's planned capital maintenance primarily focused on items that needed immediate replacement. Increased maintenance drove recorded costs to exceed authorized.
Projects (TLRR)	29,729	117,438	87,709	295%	SCE committed to a change in program strategy to achieve compliance with GO 95 requirements by 2025. This required substantial investment in Transmission Line Rating Remediation (TLRR). The change is reflected in our 2017 recorded costs (~87% FERC-jurisdictional).
TSP Projects	236,957	88,158	(148,799)	(63%)	Underrun primarily due to lower load growth Transmission Substation Project (TSP) program as a result of projects that were delayed into the 2018-2020 timeframe and beyond. The lower capital expenditures result from various factors, including delays in required licensing.
WDAT/TO SCE Funded	10,404	317	(10,087)	(97%)	Program underrun compared to authorized because of reductions to scope of projects such as Willow Springs Solar.

Distribution 2016 O&M

Activity	2016 Authorized (\$000)	2016 Recorded (\$000)	2016 Variance (\$000)	2016 Variance (%)	Variance Explanation
588.261 - Consolidated Mobile Solutions Benefits 593.120 - Planned Maintenance of Distribution Overhead & Underground Lines/Equipment, Vegetation Management Apparatus Inspection & Maintenance	137,547	162,077	24,530	18%	Drought-related vegetation management exceeded authorized by \$35M due to historic drought conditions. Overrun is partially offset by underruns associated with lower maintenance items than assumed in GRC forecast from inspections and field observations. Also, reduced cost pers resulted from gaining operational efficiencies in DIMP (Distribution Inspection Maintenance Program) and implementing Consolidated Mobile Solutions (CMS).
593.125 - Distribution Pole Repairs and Related Expense	10,587	3,242	(7,345)	(69%)	Actual percentage of assessed poles requiring repairs was lower than forecast.

Distribution 2017 O&M

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
583.120 - Inspection of Distribution Overhead and Underground Lines and Equipment	<i>cost of work</i> 25,479 <i>credits</i> (2,087) <i>net</i> 23,392	20,255 <u>(9,253)</u> 11,002	(5,224) <u>(7,166)</u> (12,390)	(53%)	The variance analysis shows an ostensible underspend of approximately \$12 million in 2017. This account includes both the cost of the work being done <i>offset by</i> credits from third parties. The Commission authorized a forecast of approximately \$2 million of credits, but SCE realized a total of \$9 million of credits. When accounting for this \$7 million delta, the overall remaining O&M variance for this activity decreases to approximately \$5 million. However, that \$5 million variance does not actually represent an underspend. Because of the use of the 2018 GRC mapping of costs in this report, approximately \$5 million spent for distribution pole inspections is mapped to Account 583.125 (Distribution Intrusive Pole Inspections). ³⁰
580.260 - Distribution Grid Technology	19,872	12,193	(7,679)	(39%)	Variance primarily driven by \$7M in organizational changes. Primarily, this involved Grid Technology resources shifting to Information Technology. Also, the costs associated with Advanced Technology labs were \$1.8M lower, due to construction delays related to permitting and design issues.
588.261 - Consolidated Mobile Solutions Benefits 593.120 - Planned Maintenance of Distribution	138,334	176,081	37,747	27%	Drought-related vegetation management exceeded authorized by \$46M due to historic drought conditions. Overrun is partially offset by underruns associated with lower maintenance items than assumed in GRC forecast from inspections and field observations as well as reduced cost pers resulted from gaining operational efficiencies in DIMP (Distribution Inspection Maintenance Program) and implementing Consolidated Mobile Solutions (CMS).

³⁰ Account 583.125 is found in Appendix 2.

Distribution 2017 O&M

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
Overhead & Underground Lines/Equipment, Vegetation Management Apparatus Inspection & Maintenance					
593.125 - Distribution Pole Repairs and Related Expense	10,744	3,494	(7,250)	(67%)	Actual percentage of assessed poles requiring repairs was lower than forecast.

Distribution 2016 Capital

Activity	2016 Authorized (\$000)	2016 Recorded (\$000)	2016 Variance (\$000)	2016 Variance (%)	Variance Explanation
Poles ³¹	346,959	393,907	46,948	14%	Poles program higher as a result of a higher cost per unit. The higher costs are primarily driven by environmental and overhead costs, as well as more complex pole replacements. There was an additional increase in costs associated with poles not installed in 2016.
Overhead Conductor Program (OCP)	0	97,330	97,330	N/A	The 2015 GRC did not include the OCP capital program, which means there were no dollars authorized for this program in the 2015 GRC decision. SCE first requested this program in the 2018 GRC to address public safety concerns associated with wire-down events.
Distribution - Storm	43,964	64,865	20,901	48%	These costs are based on a rolling 5-year average. More severe storm activity, including brush and wildfires, has caused increases in costs associated with restoring service to customers, repairing or replacing facilities. The recorded amounts include total storm costs, including those recorded in our Catastrophic Event Memorandum Account.
4 kV Substation Elimination	87,267	107,452	20,185	23%	Overrun due to accelerated construction activity on Metro East, North Coast, and Desert Region. This is due to aging 4kV system and as determined by inspections and engineering analysis. This program also enables higher penetration levels of distributed energy resources.

³¹ The majority is distribution, but approximately 10% is transmission.

Distribution 2016 Capital

Activity	2016 Authorized (\$000)	2016 Recorded (\$000)	2016 Variance (\$000)	2016 Variance (%)	Variance Explanation
New Service Connections	321,231	225,100	(96,131)	(30%)	This forecast is based on economic analysis and expected growth in new construction in various areas. Less demand materialized than expected in the GRC forecast.

Distribution 2016 Capital

Activity	2016 Authorized (\$000)	2016 Recorded (\$000)	2016 Variance (\$000)	2016 Variance (%)	Variance Explanation
UG Structure Replacement	58,905	76,014	17,109	29%	Variance driven by increase in unit cost associated with changing to a “shoo-fly” work method employed to minimize the overall outage impact on our customers and to reduce worker safety risk associated with working with live equipment in confined spaces. Additionally, utilizing a shoo-fly method allows crews to simultaneously replace other equipment, such as transformers, switches and cable that needs to be replaced without burdening our customers with additional outages.
Plant Betterment	8,114	23,289	15,175	187%	Overrun mainly due to an increased amount of upgrades identified to meet load-related system needs or requested by district personnel based on regional grid needs.
Prefab (395)	26,553	13,659	(12,894)	(49%)	In 2012, SCE implemented several process improvements and other work management efficiencies gained through our Distribution Field Program. We have been able to streamline the material and staging activities in our districts, which is reflected in the declining level of expenditures for Prefabrication.

Distribution 2017 Capital

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
4 kV Substation Elimination	89,012	107,349	18,337	21%	Overrun due to accelerated construction activity on Metro East, North Coast, and Desert Region. This accelerated activity was due to aging 4kV system and as determined by inspections and engineering analyses. This program also enables higher penetration levels of distributed energy resources.
Overhead Conductor Program (OCP)	0	138,714	138,714	N/A	The 2015 GRC did not include the OCP capital program, which means there were no dollars authorized for this program in the 2015 GRC. SCE first requested this program in the 2018 GRC to address public safety concerns associated with wire down events.
New Service Connections	327,656	213,018	(114,637)	(35%)	This forecast is based on economic analysis and expected growth in new construction in various areas. Less demand materialized than expected in the GRC forecast.
Plant Betterment	8,276	21,614	13,338	161%	Overrun mainly due to an increased amount of upgrades needed to meet load related system needs or identified by district personnel based on regional needs.
Prefab (395)	27,084	15,183	(11,902)	(44%)	In 2012, SCE implemented several process improvements and other work management efficiencies gained through our Distribution Field Program. We have been able to streamline the material and staging activities in our districts; this is reflected in the declining level of expenditures for Prefabrication.

Distribution 2017 Capital

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
Distribution – Storm	44,843	88,778	43,935	98%	These costs are based on a rolling 5-year average. More severe storm activity including brush and wild fires has caused increases in costs associated with restoring service to customers, repairing or replacing facilities. The recorded amounts include total storm costs even those recorded in our Catastrophic Event Memorandum Account.

Other 2016 O&M

Activity	2016 Authorized (\$000)	2016 Recorded (\$000)	2016 Variance (\$000)	2016 Variance (%)	Variance Explanation
Corporate Security - 920-921	43,417	27,053	(16,364)	(38%)	The variance is primarily driven by SCE's decision not to proceed with implementing the workplace security and grid protection improvements project, involving adding metal detectors and X-ray scanning devices at multiple SCE locations. The decision not to proceed was due to the negative impact on worker morale and significant operational adjustments required (e.g., staggered work schedules); also, it appeared the measures may not materially alleviate threats.
903.800 - CCC And Phone Bills	52,410	42,248	(10,162)	(19%)	The variance is primarily driven by operational services excellence savings that resulted in less call representatives and supervisors needed. This included reduced hours of operation for SCE contact center, reduced numbers of calls due to improved IVR (interactive voice response), increased call outsourcing to vendors, and call deflection.
Corporate Real Estate - 920-921	26,452	18,315	(8,137)	(31%)	The variance was driven by Corporate Real Estate's reduction in force. The organization utilized a new operating model that relies heavily on an external service provider rather than internal resources.
Local Public Affairs - 920-921	14,112	6,458	(7,654)	(54%)	The variance is due to focusing on core public affairs work, improving business processes, adopting new technology/new tools, and reorganizing our team to be more efficient.

Other 2016 O&M

Activity	2016 Authorized (\$000)	2016 Recorded (\$000)	2016 Variance (\$000)	2016 Variance (%)	Variance Explanation
Infrastructure Technology Services - 920-921 Incremental O&M For New Software Projects – 920-921	125,751	181,634	55,883	44%	The higher costs result from IT outsourcing work that had previously been handled internally. The work was transferred to third-party vendors (Managed Service Provider recorded costs \$66M). This led to reductions in labor expenses (headcount reductions) to streamline the organization. In turn, this resulted in lower costs in the Client Services & Planning, Enterprise Information Management & Architecture, Infrastructure Technology Services & Technology Delivery & Maintenance 2015 GRC activities.
Technology Delivery & Maintenance – 920-921	52,841	29,615	(23,226)	(44%)	The lower costs resulted from the IT transformation that occurred after the 2015 GRC. This involved combining the Business Integration & Delivery groups into one IT group responsible for implementing IT SW solutions, eliminating duplicative resources, and utilizing a managed service provided (MSP) to perform application development and maintenance work.
903.500 - Billing	23,754	30,701	6,947	29%	CSOD performed pre CS Replatform work, including building the business case, as-is and to-be analysis, and set up PMO. In addition, Mailing Operations moved from IT to CS Billing.

Other 2017 O&M

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
Technology Delivery & Maintenance – 920-921	53,963	34,282	(19,681)	(36%)	The lower costs resulted from the IT transformation that occurred after the 2015 GRC. The transformation involved combining the Business Integration & Delivery groups into one IT group responsible for implementing IT SW solutions, eliminating duplicative resources, and utilizing a managed service provided (MSP) to perform application development and maintenance work.
Corporate Security – 920-921	43,912	25,801	(18,111)	(41%)	The variance is primarily driven by SCE’s decision not to proceed with implementing the workplace security and grid protection improvements project. That project would have added metal detectors and X-ray scanning devices at multiple SCE locations.
Infrastructure Technology Services – 920-921 Incremental O&M For New Software Projects - 920-921	127,958	200,185	72,227	56%	The higher costs result from IT outsourcing work that had previously been handled internally. The work was transferred to third-party vendors (Managed Service Providers costs \$70M). This led to reduced labor expenses (headcount reductions) to streamline the organization. In turn, this resulted in lower costs in the Client Services & Planning, Enterprise Information Management & Architecture, Infrastructure Technology Services & Technology Delivery & Maintenance 2015 GRC activities.
Client Services & Planning - 920-921	19,993	9642	(10,351)	(52%)	The lower costs resulted from the IT transformation that occurred after the 2015 GRC. The transformation involved organizational changes to centralize IT work and resources, reductions in labor expenses (headcount reductions) to eliminate duplicative resources, and additional labor

Other 2017 O&M

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
					reductions as work previously performed internally were shifted to a third-party vendor (Managed Service Provider).
Local Public Affairs - 920-921	14,460	6,491	(7,969)	(55%)	The variance is due to focusing on core public affairs work, improving business processes, adopting new technology/new tools and reorganizing our team to be more efficient.

Other 2016 Capital

Activity	2016 Authorized (\$000)	2016 Recorded (\$000)	2016 Variance (\$000)	2016 Variance (%)	Variance Explanation
Capitalized Software - CCI	16,532	0	(16,532)	(100%)	Cybersecurity Legislation in this Program Group (\$6M) - program cancelled; Enterprise Platform Core Refresh was authorized here but was not started until 2017 (\$5M).
Capitalized Software- Arch. Engrg	26,029	4,543	(21,486)	(83%)	Mobile Radio System Replacement (\$14M) - project was winding down in 2016 after majority of spend occurred in 2013 - 2015; Grid Control Center operational bus (\$3M) - project cancelled; SAP Business Warehouse HANA (high-performance analytic appliance) Enterprise Data Warehouse (\$2M) - project cancelled.
Information Technology - Service Management	9,311	21,121	11,811	127%	Transmission and Distribution (TDBU) Refresh for Ruggedized Laptops was \$8M over authorized. The overrun in ruggedized laptops occurred as a result of the Consolidated Mobile Solutions program in T&D. This \$60M+ program consolidated several T&D field systems for distribution, substation, and transmission. The program allows mobile access for field employees to receive, process, complete and return data on assignments while in the field. At the time of implementation, we learned our standard computing devices could not provide the performance, computing power, or durability necessary for field employees. As a result, additional ruggedized laptops were deployed to successfully remediate these challenges. PC's - CDE (Common Desktop Environment) were \$3M over authorized. The increase occurred because we had a large backlog of devices that were failing and unsupported. This ultimately led to server performance issues in a changing application environment. Under the direction of

Other 2016 Capital

Activity	2016 Authorized (\$000)	2016 Recorded (\$000)	2016 Variance (\$000)	2016 Variance (%)	Variance Explanation
					IT leadership, we increased refresh rate to remove aging and outmoded inventory.
Capitalized Software – Project Management	120,307	93,377	(26,930)	(22%)	SCE underspent its authorized levels for Operating Unit capitalized software. This was largely due to deferring Customer Data Warehouse project from its originally planned date. SCE found synergies in merging this investment with our efforts to migrate to HANA (high-performance analytic appliance) Hadoop technology in the future.
Capitalized Software – Risk Management	27,396	20,392	(7,004)	(26%)	There was a delay in 2016 Capital spend due to unavailability of resources to start some of the work we originally anticipated. We have since found the necessary resources, and shifted spend to 2017.

Other 2016 Capital

Activity	2016 Authorized (\$000)	2016 Recorded (\$000)	2016 Variance (\$000)	2016 Variance (%)	Variance Explanation
Bldg. Renovation – Operational services	18,500	53,124	34,623	187%	<p>Overrun variance in 2016 was mainly driven by emergent projects which were not included in the GRC original ask. These projects became business necessities and received approvals through SCE capital governance process. The projects are:</p> <ul style="list-style-type: none"> - General Office 2/General Office 3 IT Space Optimization \$16M - General Office 2 Cybersecurity \$8M - Emergency and security operations center for Irvine operation center Backup \$1M - Mira Loma Substation Street Widening \$2M - Fenwick Advanced Technology Lab Expansion \$4M - General Office 1 1st Floor Lobbies Remodel \$2M.
New Asset CRE – Operational Services	38,528	7,546	(30,982)	(80%)	<p>Underrun variance in 2016 was mainly driven by:</p> <ul style="list-style-type: none"> - Delaying Alhambra Master Plan for further development until 2019, \$10M. - Cancelling Metro East Parking Structure Project \$9M. - Cancelling General Office 5 food service project \$2M. - Delaying Alhambra service center related renovations to future years \$5M. - Changing design and scope of New Emergency Operations Center which resulted in underrun of \$2M. - Changing design and scope of Metro East Office Building which resulted in an underrun of \$2M.

Other 2017 Capital

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
Capitalized Software-Arch. Engrg	26,550	547	(26,003)	(98%)	Mobile Radio System Replacement (\$14M) - project was winding down in 2016 and had minimal spend in 2017. Majority of spend occurred in 2013 – 2015. Grid Control Center operational bus (\$3M) - project cancelled; SAP Business Warehouse HANA (high-performance analytic appliance) Enterprise Data Warehouse (\$2M) - project cancelled.
Capitalized Software-Project Management	122,713	105,752	(16,961)	(14%)	SCE underspent its authorized levels for Operating Unit capitalized software. This was largely due to deferring the Customer Data Warehouse project from its originally planned date. SCE found synergies in merging this investment with our efforts to migrate to HANA (high-performance analytic appliance) Hadoop technology in the future.
Capitalized Software-Risk Management	27,944	52,644	24,700	88%	There was a delay in 2016 Capital spend due to unavailability of resources to start some of the work originally slated for 2016. The necessary resources were brought on and costs in 2017 were higher than authorized due to shift of spend from 2016 to 2017. Perimeter Defense (\$12M), Grid Cybersecurity (\$11M) and Data protection (\$5M) were all over authorized.

Other 2017 Capital

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
Information Technology -Service Management	9,497	18,391	8,895	94%	<p>PC's - CDE (Common Desktop Environment) were \$6M over authorized. We had a large backlog of devices that were failing and unsupported. This ultimately led to server performance issues in a changing application environment. Under the direction of IT leadership, we increased refresh rate to remove aging inventory in our environment. Transmission and Distribution (TDBU) Refresh for Ruggedized Laptops was \$3M over authorized. The overrun in ruggedized laptops was a result of the Consolidated Mobile Solutions program in T&D. This \$60M+ program consolidated several T&D field systems for distribution, substation, and transmission. The program allows mobile access for field employees to receive, process, complete and return data on assignments while in the field. At the time of implementation, we learned that our standard computing devices could not provide the performance, computing power, or durability necessary for field employees. Accordingly, additional ruggedized laptops were deployed to successfully remediate these challenges.</p>

Other 2017 Capital

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
Bldg Renovation–Operational Services	18,870	50,549	31,679	168%	<p>Overrun variance in 2017 was mainly driven by emergent projects that were not included when the GRC application showing was prepared in 2013. These projects became business necessities and received approvals through SCE’s capital governance process. The projects are:</p> <ul style="list-style-type: none"> - General Office 2/General Office 3 IT Space Optimization \$3M - General Office 2 Cybersecurity \$3M - Fenwick Advanced Technology Lab Expansion \$3M - Passenger Electric Vehicle Workplace Chargers \$2M - Rio Hondo Substation Laydown \$1M - General Office 1 Workplace Upgrade \$8M - Alhambra Data Center Build-Out \$5M. - Irvine Operation Center upgrades overspend \$5M.
Maintenance Asset Mgmt –Operational Services	19,687	45,959	26,272	133%	<p>Overrun variance in 2017 is mainly driven by substation capital maintenance. This work activity was part of T&D prior to 2017 and was transitioned to Corporate Real Estate (CRE) in 2017. The 2015 CRE GRC showing did not include this request for capital maintenance; the work activity was requested in T&D testimony.</p>
Energy Efficiency –Operational Services	2,461	14,415	11,954	486%	<p>Overrun variance in 2017 was mainly driven by seismic-related work that was not part of the authorized amount. This seismic-related work accounted for a \$12M variance compared to authorized. The actual energy efficiency 2017 recorded amount was \$2,375, which drives only 3% variance.</p>
New Asset CRE–Operational Services	39,299	372	(38,927)	(99%)	<p>Underrun variance in 2017 was mainly driven by:</p> <ul style="list-style-type: none"> - Deferring Alhambra Master Plan until 2019 for further development-\$18M. - Cancelling Westminster Admin Building renovation-\$7M.

Other 2017 Capital

Activity	2017 Authorized (\$000)	2017 Recorded (\$000)	2017 Variance (\$000)	2017 Variance (%)	Variance Explanation
					<ul style="list-style-type: none"> - Cancelling Alhambra Regional Operating Facility Secure Storage project-\$6M. - Delaying Alhambra service center-related renovations to future years-\$6M.

Appendix 2 to Attachment A

Variances for All O&M and Capital Activities, Regardless of Threshold

2016 – 2017 O&M

Category (Function)	2015 GRC Activity	Activity Description	2015 GRC Testimony Reference	2018 GRC Testimony Reference	2016 Authorized	2016 Recorded	2016 Variance (\$)	2016 Variance (%)	2017 Authorized	2017 Recorded	2017 Variance (\$)	2017 Variance (%)	Safety	Service Reliability	Maintenance	2016 Variance Explanation Required (y/n)	2017 Variance Explanation Required (y/n)
Generation	514.013 Mohave	This activity shall include the cost of labor, materials used and expenses incurred in maintenance of miscellaneous steam generation plant. The book cost is included in account 316, Miscellaneous Power Plant Equipment. This activity includes the cost of labor, materials performed and expenses incurred in maintenance of miscellaneous steam generation plant.	SCE-2, Vol. 6	SCE-05, Vol. 04	241	118	(123)	-51%	243	90	(153)	-63%	n	n	y	n	n
Generation	514.013 Mohave - Part Billing Trans	Participant credit billing activities related to activity 514.013.	SCE-2, Vol. 6	SCE-05, Vol. 04	(106)	(12)	94	-89%	(107)	-	107	-100%	n	n	y	n	n
Generation	Palo Verde - 524	This activity 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. This activity package has zero dollars; all costs have been transferred to other activities.	SCE-2, Vol. 3	SCE-05, Vol. 01	79,402	81,044	1,642	2%	81,063	79,459	(1,604)	-2%	n	y	n	n	n
Generation	539 - Misc. Hydraulic Power Generation Expenses	This account shall include 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. This activity package has zero dollars; all costs have been transferred to other activities.	SCE-2, Vol. 7	SCE-05, Vol. 03	33,706	27,994	(5,712)	-17%	34,310	24,831	(9,479)	-28%	n	y	n	n	y
Generation	545 - Maintenance Of Misc. Hydraulic Plant	Includes part of the salaries of supervisors of Operation and Maintenance, and other expenses incurred in the direct repair supervision of hydraulic generating stations. Includes Engineering, Research and Environment (ER&E) charges incurred in connection with repairs to hydraulic production facilities, structures, and equipment. Also includes services and expenses of ER&E personnel in making tests or inspections and preparing reports. Includes payroll and other costs incurred in repairing powerhouse structures, camp structures, cottage structures, camp utilities, camp fences, camp roads, and fire-fighting equipment for general use. Also includes payroll and other costs incurred in repairing ranges, water heaters, and refrigerators in company houses. Includes payroll and other costs incurred in repairing reservoirs, dams, waterways, intakes, forebays, penstocks, tailraces, structures (including snow-shelter cabins), and appurtenant facilities used in connection with hydraulic works. Includes payroll and other costs incurred in repairing and overhauling hydraulic, mechanical, and electrical facilities and appurtenances identified with prime movers and generators from the lower penstock valve to tailrace. Includes payroll and other costs incurred in repairing machine-shop tools and work equipment, compressed air systems, signal systems, and other miscellaneous equipment not properly included in other station equipment repair functions. Includes payroll and other costs incurred in repairing powerhouse station cranes and monorail hoists. Includes payroll and other costs incurred in maintaining and clearing, including snow removal, all production roads, bridges, trails, aerial tramways, inclines, and penstock tramways.	SCE-2, Vol. 7	SCE-05, Vol. 03	17,333	9,805	(7,528)	-43%	17,633	14,062	(3,571)	-20%	y	y	y	y	n
Generation	549 - Fuel Cell	The Fuel Cell Program was approved in D.10-04-028 to install utility owned fuel cells on the University of California and California State University campuses.	SCE-2, Vol. 10	SCE-05, Vol. 05	623	116	(507)	-81%	628	1,187	559	89%	n	y	n	n	n
Generation	549 - Gas Turbine Peaker	This activity shall include the cost of labor and expenses incurred in the general supervision and direction of the operation of Gas Turbine Peaker power generating stations. This activity package has zero dollars; all costs have been transferred to other activities.	SCE-2, Vol. 9	SCE-05, Vol. 04	6,797	6,119	(678)	-10%	6,926	5,033	(1,893)	-27%	n	y	n	n	n
Generation	549 - Mountainview	This activity includes the cost of labor and expenses incurred in the general supervision and operation of the Mountainview Generating station. This activity package has zero dollars; all costs have been transferred to other activities.	SCE-2, Vol. 8	SCE-05, Vol. 04	8,912	8,439	(473)	-5%	9,055	11,114	2,059	23%	n	y	n	n	n
Generation	549 - Solar Photovoltaic Program	This activity shall include all rents of property of others used, occupied, or operated in connection with Solar Photovoltaic Program (SPVP) projects.	SCE-2, Vol. 10	SCE-05, Vol. 05	1,508	661	(847)	-56%	1,525	831	(694)	-46%	y	y	n	n	n
Generation	549.140 - Catalina Generation - Operations And Maintenance Of Generation Facilities	Catalina Generation Operation Supervision and Engineering - Includes the cost of labor and expenses incurred in the general supervision and direction of the operation of other power generating station. This activity package has zero dollars; all costs have been transferred to activity 549.140.	SCE-2, Vol. 10	SCE-05, Vol. 05	4,690	5,677	987	21%	4,764	4,604	(160)	-3%	y	y	y	n	n
Generation	550 - Solar Photovoltaic Program	This activity shall include all rents of property of others used, occupied, or operated in connection with Solar Photovoltaic Program (SPVP) projects.	SCE-2, Vol. 10	SCE-05, Vol. 05	2,187	3,464	1,277	58%	2,201	2,987	786	36%	n	y	n	n	n
Generation	554 - Gas Turbine Peaker	This activity shall include the cost of labor, materials used and expenses incurred in maintenance of Gas Turbine Peaker plant and the book cost which is includible in Prime Movers, Generators, Accessory Electric Equipment. This activity package has zero dollars; all costs have been transferred to other activities.	SCE-2, Vol. 9	SCE-05, Vol. 04	4,175	3,349	(826)	-20%	4,238	1,726	(2,512)	-59%	y	y	y	n	n
Generation	554 - Mountainview	This activity shall include the cost of labor, materials used and expenses incurred in maintenance of Mountainview Generation Station plant and the book cost which is includible in Prime Movers, Generators, Accessory Electric Equipment. This activity package has zero dollars; all costs have been transferred to other activities.	SCE-2, Vol. 8	SCE-05, Vol. 04	42,268	15,593	(26,675)	-63%	42,631	20,737	(21,894)	-51%	y	y	y	y	y

Category (Function)	2015 GRC Activity	Activity Description	2015 GRC Testimony Reference	2018 GRC Testimony Reference	2016 Authorized	2016 Recorded	2016 Variance (\$)	2016 Variance (%)	2017 Authorized	2017 Recorded	2017 Variance (\$)	2017 Variance (%)	Safety	Service Reliability	Maintenance	2016 Variance Explanation Required (y/n)	2017 Variance Explanation Required (y/n)
Generation	Power Procurement - 557	Power Procurement costs associated with departmental responsibility for performing the necessary functions needed to provide safe, reliable and affordable delivery of power to SCE's customers. Activities include: Planning for procurement of conventional, renewable and cogeneration resources to meet system load; Procuring energy and capacity via contracts and from the market in accordance with resource plans to meet the daily and long-term power needs in SCE's service territory; Selling surplus electricity, capacity, and renewable energy credits into the market and through contracts; Administering contracts from conventional, cogeneration, renewable, and alternative-power resources; Scheduling SCE's generation and contracted resources with the California Independent System Operator (CAISO) to meet SCE's system needs; Settling all power procurement transactions; Aggregating, tracking and reporting meter data to regulators; Managing the development of business processes; Developing and advocating policy positions on matters related to energy policies to the extent they are considered at the federal, state and local levels, and; Providing administrative services to Power Procurement and other limited areas within the Power Supply Operating Unit.	SCE-2, Vol. 4	SCE-05, Vol. 02	43,745	30,457	(13,288)	-30%	44,756	26,532	(18,224)	-41%	n	y	n	y	y
Transmission	560.220 - Transmission Grid Engineering And Technology	Transmission Grid Engineering and Technology - Includes the cost of labor, materials used and other expenses incurred to perform engineering studies, including facility studies, for the transmission grid; load dispatching operations pertaining to the transmission of electricity, including costs incurred to perform transmission system studies; miscellaneous costs incurred in managing major transmission projects and telecommunications activities; management of grid interconnections; and purchases and maintenance of shop tools for Shop Services and Instrumentation Division. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 2	SCE-02, Vol. 03	18,840	20,476	1,636	9%	19,166	18,444	(722)	-4%	y	y	y	n	n
Transmission	560.221 - Federal Energy Regulatory Commission (Ferc) Policy And Compliance	Includes the cost of labor, materials used and expenses incurred by employees in the Reliability Standards and Compliance group.	SCE-3, Vol. 2	SCE-02, Vol. 13	2,816	1,276	(1,540)	-55%	2,880	(15)	(2,895)	-101%	y	y	n	n	n
Transmission	560.260 - Transmission Grid Technology	Transmission Grid Engineering and Technology - Includes the cost of labor, materials used and other expenses incurred to perform engineering studies, including facility studies, for the transmission grid; load dispatching operations pertaining to the transmission of electricity, including costs incurred to perform transmission system studies; miscellaneous costs incurred in managing major transmission projects and telecommunications activities; management of grid interconnections; and purchases and maintenance of shop tools for Shop Services and Instrumentation Division. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 2	SCE-02, Vol. 11	3,704	1,822	(1,882)	-51%	3,777	1,499	(2,278)	-60%	y	y	y	n	n
Transmission	561.170 - Grid Operations - Management And Operation Of The Grid Control Center	Grid Operations - Management and Operation of the Grid Control Center - Includes the cost of labor and other expenses incurred by SCE's centralized control centers for real time electric operations encompassing transmission and distribution systems. Activities include: execution of California Independent System Operator (CAISO) instructions regarding the operations of the SCE electrical system under CAISO operational control; develop and maintain switching procedures under CAISO purview; coordinate planned outages consistent with CAISO approval; and maintaining situation awareness. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 7	SCE-02, Vol. 06	9,611	9,877	266	3%	9,805	10,205	400	4%	y	y	y	n	n
Transmission	562.150 - Substation Inspection And Maintenance - Inspections And Maintenance Activities Performed At Sce-Owned Generating Facilities	Substation Inspection and Maintenance - Inspections and Maintenance Activities Performed at SCE-Owned Generating Facilities - Includes the cost of labor, materials used and expenses incurred in operating transmission substations and switching stations. Includes labor incurred for activities such as: supervising station operation; adjusting station equipment where such adjustment primarily affects performance; inspecting, testing and calibrating station equipment for the purpose of checking its performance; keeping station log and records and preparing reports on station operation; and operating switching and other station equipment. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense. These costs are incurred by SCE's Power Production Department.	SCE-3, Vol. 8	SCE-02, Vol. 06	1,356	967	(389)	-29%	1,370	810	(560)	-41%	y	y	y	n	n
Transmission	562.170 - Grid Operations - Operating Transmission Stations	Grid Operations - Operating Transmission Stations - Includes the cost of labor, materials, and expenses incurred in operating transmission substations and switching stations. Includes labor incurred for activities such as: supervising station operation; inspecting station equipment; keeping station logs and records and preparing reports on station operation; and operating switching and other station equipment. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 7	SCE-02, Vol. 06	20,244	19,877	(367)	-2%	20,632	17,680	(2,952)	-14%	n	y	n	n	n
Transmission	566.125 - Transmission Pole Assessments	Transmission Pole Assessments - Includes the cost of labor, materials used and expenses incurred in performing pole loading assessments on transmission poles, including pole loading calculations.	SCE-3, Vol 6	SCE-02, Vol. 09	2,803	1,214	(1,589)	-57%	2,851	1,043	(1,808)	-63%	y	y	n	n	n

Category (Function)	2015 GRC Activity	Activity Description	2015 GRC Testimony Reference	2018 GRC Testimony Reference	2016 Authorized	2016 Recorded	2016 Variance (\$)	2016 Variance (%)	2017 Authorized	2017 Recorded	2017 Variance (\$)	2017 Variance (%)	Safety	Service Reliability	Maintenance	2016 Variance Explanation Required (y/n)	2017 Variance Explanation Required (y/n)
Transmission	566.150 - Transmission - Inspection And Operation Of Transmission Lines And Structures	Transmission - Overhead Line Inspections - Includes the cost of labor, materials used and expenses incurred in the operation of transmission lines. Includes labor for activities such as: routine line patrolling and transferring loads, transmission intrusive pole inspections, and switching and reconnecting circuits and equipment for operating purposes. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense. This activity package has zero dollars; all costs have been transferred to 566.150.	SCE-3, Vol. 8	SCE-02, Vol. 07	25,800	27,840	2,040	8%	25,969	24,627	(1,342)	-5%	y	y	n	n	n
Transmission	566.250 - Training And Safety Delivery And Seat-Time For Transmission And Substation Personnel	Transmission - Inspection and Operation of Transmission Lines and Structures - Includes the cost of labor, materials, and expenses incurred in the operation of transmission lines and structures. Activities in this account include: routine line patrolling and transferring loads; transmission intrusive pole inspections; switching and reconnecting circuits and equipment for operating purposes; inspecting terminations at transition points; pumping of ground water; routine inspection and cleaning of manholes, conduits, network and transformer vaults; marking the location of transmission underground lines and facilities; inspecting underground get-aways entering substations; identifying and resolving compliance issues and violations related to encroachments on transmission rights-of-way; general records of physical characteristics of lines; ground resistance records; preparing maps and prints; Transmission Specialization Program; fees charged to SCE for the right to operate transmission lines over another's property; and other miscellaneous activities. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 9	SCE-02, Vol. 12	20,863	19,196	(1,667)	-8%	21,189	24,113	2,924	14%	y	y	n	n	n
Transmission	566.280 - Grid Contract Management	Transmission - Inspection and Operation of Transmission Lines and Structures - Includes the cost of labor, materials, and expenses incurred in the operation of transmission lines and structures. Activities in this account include: routine line patrolling and transferring loads; transmission intrusive pole inspections; switching and reconnecting circuits and equipment for operating purposes; inspecting terminations at transition points; pumping of ground water; routine inspection and cleaning of manholes, conduits, network and transformer vaults; marking the location of transmission underground lines and facilities; inspecting underground get-aways entering substations; identifying and resolving compliance issues and violations related to encroachments on transmission rights-of-way; general records of physical characteristics of lines; ground resistance records; preparing maps and prints; Transmission Specialization Program; fees charged to SCE for the right to operate transmission lines over another's property; and other miscellaneous activities. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 10	SCE-02, Vol. 13	2,448	2,332	(116)	-5%	2,507	2,435	(72)	-3%	y	y	n	n	n
Transmission	566.282 - Substation Facility Maintenance - Corporate Real Estate	Substation Facility Maintenance - Corporate Real Estate - Includes the labor, material used and expenses incurred by SCE's Operations Support for maintaining transmission and substation buildings and grounds.	SCE-3, Vol. 10	SCE-07, Vol. 03	4,697	5,184	487	10%	4,699	4,251	(448)	-10%	y	y	y	n	n
Transmission	568.150 - Substation Construction & Maintenance - Supervision Of Transmission Substation Maintenance	Substation Construction & Maintenance - Supervision of Transmission Substation Maintenance - Includes the cost of labor, materials used, and expenses incurred in performing the following activities: general supervision and direction of maintenance of the transmission substation system; substation capital related expense; maintenance of grounds and facilities for transmission substations; and inspection and maintenance of circuit breakers, miscellaneous equipment, relays, and transformers at transmission substations.	SCE-3, Vol. 8	SCE-02, Vol. 06	16,632	10,381	(6,251)	-38%	16,958	11,341	(5,617)	-33%	y	y	y	y	y
Transmission	568.281 - Transmission Operational Excellence Savings	Transmission Allocated Division Overhead - This account includes savings resulting from the consolidation of finance functions attributable to transmission expenses.	SCE-3, Vol. 10	SCE-02, Vol. 13	(966)	-	966	-100%	(976)	-	976	-100%	n	n	y	n	n
Transmission	569.281 - Transmission It Internal Market Mechanism (Imm) Hardware/Software/Communication	Transmission IT Internal Market Mechanism (IMM) Hardware/Software/Communication - Information Technology (IT) costs charged back to the business unit, but can also include: overseeing maintenance of computer applications; installing and maintaining PC Local Area Network/Wide Area Network; supporting legacy system. Also includes expenses charged to the organizations for services such as PC moves/adds/changes, mainframe application services, and non-unix application/database servers.	SCE-3, Vol. 10	SCE-02, Vol. 13	-	728	728	100%	-	-	-		n	n	y	n	n
Transmission	570.281 - Transmission Participant Share Costs	Transmission Participant Share Costs - Includes the payments made to the owners of utility assets where SCE either owns a minority interest or is not the operator of the asset. These assets include the Pacific Intertie Direct Current (DC) Transmission Line and the Utah Power & Light Company Phase Shifter.	SCE-3, Vol. 10	SCE-02, Vol. 13	10,301	12,078	1,777	17%	10,304	5,933	(4,371)	-42%	n	n	y	n	n
Transmission	571.125 - Transmission Pole Repairs And Transmission Pole Related Expense	Transmission Pole Repairs and Transmission Pole Related Expense - Includes the cost of labor, materials used and expenses incurred to make repairs to transmission poles as part of the Pole Loading Program or related to capital work in support of the Pole Loading Program. Examples include: installing or removing additional clamps or strain insulators on guys; readjusting and changing position of guys or braces; relocating crossarms, racks, brackets, and other fixtures on poles; and supporting fixtures and conductors and transferring them to new pole during poles replacement.	SCE-3, Vol 6	SCE-02, Vol. 09	1,482	-	(1,482)	-100%	1,503	-	(1,503)	-100%	y	y	y	n	n

Category (Function)	2015 GRC Activity	Activity Description	2015 GRC Testimony Reference	2018 GRC Testimony Reference	2016 Authorized	2016 Recorded	2016 Variance (\$)	2016 Variance (%)	2017 Authorized	2017 Recorded	2017 Variance (\$)	2017 Variance (%)	Safety	Service Reliability	Maintenance	2016 Variance Explanation Required (y/n)	2017 Variance Explanation Required (y/n)
Transmission	571.150 - Transmission - Line, Structure, Road, And Right-Of-Way Maintenance	Transmission - Line, Structure, Road, and Right-of-Way Maintenance - Includes the costs of labor, materials, and expenses incurred in performing the following activities: reactive and proactive maintenance of poles, towers, conductors, and underground lines and structures; insulator washing; transmission roads and right-of-way maintenance; and transmission capital related expense. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 8	SCE-02, Vol. 07	31,327	21,764	(9,563)	-31%	31,630	27,168	(4,462)	-14%	y	y	y	y	n
Transmission	573.170 - Grid Operations - Transmission And Substation Storm Expense	Grid Operations - Transmission and Substation Storm Expense - Includes the costs to patrol for and repair storm related damages and toxic waste disposal for transmission lines and facilities. Storm damage can be the result of severe weather conditions such as rain, wind, lightning, and by natural disasters such as earthquakes and forest fires. The storm costs included in this account are: switching, locating and isolating trouble on the system, removal of debris from lines or equipment, and securing damaged sites until repairs have been completed. Costs for toxic waste disposal include cleaning up hazardous waste dumped on SCE's transmission property and disposal of oil from electrical equipment. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 7	SCE-02, Vol. 07	1,615	3,536	1,921	119%	1,628	2,960	1,332	82%	y	y	y	n	n
Transmission	573.250 - Transmission And Substation Toxic Waste Disposal	Transmission and Substation Toxic Waste Disposal - Includes payroll, automotive, and other expenses incurred in the inspection, sampling, testing, and cleaning of oil products or polychlorinated biphenyl (PCB) contamination caused by leakage and/or spillage. Also includes the costs incurred to clean-up and dispose of hazardous or toxic waste for distribution equipment.	SCE-3, Vol. 9	SCE-02, Vol. 12	412	189	(223)	-54%	415	13	(402)	-97%	y	n	y	n	n
Distribution	580 - Meter Services Operations And Management	This activity records costs for meter strategy and meter technology deployment. The primary activities of this group include: research of new metering technologies, performance of cost-benefit analysis, project management, and infrastructure maintenance planning. These activities are driven by the increased role of metering in demand response programs, the higher rate of obsolescence of new metering products, and the increased complexity of new metering products. In addition, this activity consists of costs associated with Customer Service Safety & Environmental Health which oversees the direction, management and maintenance of infrastructure and resources critical to the effectiveness of CS's safety program. The Field Operations and Support & Training organizations record expenses associated with the following program elements to this Activity: safety compliance; program development, communication, and accountability; hazard assessment and correction; accident investigations; training and instruction; and record keeping.	SCE-4, Vol. 2	SCE-03, Vol. 01	7,078	5,062	(2,016)	-28%	7,256	3,017	(4,239)	-58%	n	n	y	n	n
Distribution	580.260 - Distribution Grid Technology	Distribution Grid Technology - Includes the cost of labor, materials used, and expenses incurred to identify, evaluate, test, and integrate advanced technologies that advance the smart grid at the distribution level. Includes the costs for services provided by other SCE operating units. The operating units providing services include, but are not limited to, Information Technology, Operations Services, and Transportation Services Department. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 2	SCE-02, Vol. 11	19,676	16,329	(3,347)	-17%	19,872	12,193	(7,679)	-39%	y	y	n	n	y
Distribution	580.282 - Field Facility Maintenance - Corporate Real Estate	Field Facility Maintenance - Corporate Real Estate - Includes the labor, material used and expenses incurred by SCE's Operations Support for maintaining distribution buildings and grounds.	SCE-3, Vol. 10	SCE-07, Vol. 03	11,218	10,275	(943)	-8%	11,220	9,825	(1,395)	-12%	y	y	y	n	n
Distribution	582.150 - Substation Inspection And Maintenance - Inspections And Maintenance Activities Performed At Sce-Owned Generating Facilities	Substation Inspection and Maintenance - Inspections and Maintenance Activities Performed at SCE-Owned Generating Facilities - Includes the cost of labor, materials used and expenses incurred in operating distribution substations. Labor activities include: supervising station operation; inspecting, testing and calibrating station equipment for the purpose of checking its performance; and keeping station log and records and preparing reports on station operation. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense. These costs are incurred by SCE's Power Production Department.	SCE-3, Vol. 8	SCE-02, Vol. 06	178	134	(44)	-25%	181	107	(74)	-41%	y	y	y	n	n
Distribution	582.170 - Grid Operations - Supervising And Operating Distribution Stations	Grid Operations - Supervising and Operating Distribution Stations - Includes the cost of labor, materials, and expenses incurred in operating distribution substations and switching stations. Includes labor incurred for activities such as: supervising station operation; inspecting station equipment; keeping station logs and records and preparing reports on station operation; and operating switching and other station equipment. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 7	SCE-02, Vol. 06	28,525	28,265	(260)	-1%	29,044	25,402	(3,642)	-13%	y	y	n	n	n

Category (Function)	2015 GRC Activity	Activity Description	2015 GRC Testimony Reference	2018 GRC Testimony Reference	2016 Authorized	2016 Recorded	2016 Variance (\$)	2016 Variance (%)	2017 Authorized	2017 Recorded	2017 Variance (\$)	2017 Variance (%)	Safety	Service Reliability	Maintenance	2016 Variance Explanation Required (y/n)	2017 Variance Explanation Required (y/n)
Distribution	582.250 - Safety And Environmental Programs	Safety and Environmental Programs - Includes the labor, materials used, and costs incurred for distribution environmental and safety programs. Environmental programs include: hazardous waste management, hazardous materials business emergency plans, storm water management, and chemical management. Safety programs include: safety and environmental performance and analysis reporting, safety and environmental communications, facility safety and environmental assessments, and corporate compliance program implementation and audit/inspection support. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 9	SCE-02, Vol. 12	2,490	2,149	(341)	-14%	2,535	5,035	2,500	99%	n	y	n	n	n
Distribution	583.120 - Inspection Of Distribution Overhead And Underground Lines And Equipment	Inspection of Distribution Overhead and Underground Lines and Equipment - Includes the cost of labor, materials used and expenses incurred in performing annual grid patrols, intrusive pole inspections, and overhead and underground detail inspections. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 6	SCE-02, Vol. 04	23,027	18,840	(4,187)	-18%	23,392	11,002	(12,390)	-53%	y	y	n	n	y
Distribution	583.125 - Distribution Pole Assessments	Distribution Pole Assessments - Includes the cost of labor, materials used and expenses incurred in performing pole loading assessments on distribution poles, including pole loading calculations.	SCE-3, Vol 6	SCE-02, Vol. 09	24,154	27,430	3,276	14%	24,552	27,831	3,279	13%	y	y	n	n	n
Distribution	583.170 - Grid Operations - Troublemens Patrol, Locate, And Repair Activities	Grid Operations - Troublemens Patrol, Locate, and Repair Activities - Includes the costs incurred by troublemen when patrolling distribution lines to locate trouble at the request of SCE's system operators or as the result of a customer reported problem. Activities include: patrolling, switching, locating the cause of the reported problem, and inspecting SCE equipment installed on customer's property, and repairs to the system to correct reported problem. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 7	SCE-02, Vol. 05	35,630	32,194	(3,436)	-10%	36,313	35,440	(873)	-2%	y	y	n	n	n
Distribution	585.170 - Grid Operations - Street Light Operations And Maintenance	Grid Operations - Street Light Operations and Maintenance - Includes the cost of labor, materials used and expenses incurred in: the operation of street lighting and signal system equipment. Labor costs include activities for: supervising street lighting and signal systems operation; replacing lamps and incidental cleaning of glassware and fixtures; routine patrolling for lamp outages, extraneous nuisances or encroachments; testing lines and equipment; maintenance of street lighting and signal system assets; and streetlight mapping. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 7	SCE-02, Vol. 05	9,419	5,984	(3,435)	-36%	9,534	11,122	1,588	17%	y	n	y	n	n
Distribution	586.140 - Design Construction & Maintenance - Set, Remove, And Relocate Meters	Design Construction & Maintenance - Set, Remove, and Relocate Meters - Includes the cost of labor, materials used and expenses incurred to set new meters, remove meters, and change the location of meters at a customer's premise. Labor includes the costs for disconnecting and reconnecting; removing and reinstalling; sealing and unsealing meters; and other metering equipment in connection with initiating or terminating services. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; supply and tool expense; and meter seals.	SCE-3, Vol. 5	SCE-02, Vol. 05	12,276	10,022	(2,254)	-18%	12,447	9,173	(3,274)	-26%	n	n	y	n	n
Distribution	586.400 - Test/Inspect/Repair Meters	This activity consists of costs associated with the labor and non-labor expense for the operation; inspection; testing of meters and associated metering equipment; and for the maintenance of meters and ancillary metering equipment.	SCE-4, Vol. 2	SCE-03, Vol. 01	18,108	14,650	(3,458)	-19%	18,505	15,254	(3,251)	-18%	n	n	y	n	n
Distribution	588.140 - Design Construction & Maintenance - Construction Support Activities	Design Construction & Maintenance - Construction Support Activities - Includes the cost of labor, materials used and expenses incurred by Transmission and Distribution Design Construction and Maintenance organization for stand-by time; distribution line rents; Facility Inventory Mapping; Field Accounting; Joint Pole organization; civil inspections; warranty inspections; switching; and supervision of field service representative in Rural districts.	SCE-3, Vol. 5	SCE-02, Vol. 05	7,537	5,876	(1,661)	-22%	7,637	6,384	(1,253)	-16%	y	y	y	n	n
Distribution	588.170 - Grid Operations - Miscellaneous Operating Expenses	Grid Operations - Miscellaneous Operating Expenses - Includes the costs to create and maintain circuit maps and to perform outage data management for reporting to the CPUC pursuant to D.96-09.045. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 7	SCE-02, Vol. 05	2,946	1,874	(1,072)	-36%	3,003	1,660	(1,343)	-45%	y	y	y	n	n

Category (Function)	2015 GRC Activity	Activity Description	2015 GRC Testimony Reference	2018 GRC Testimony Reference	2016 Authorized	2016 Recorded	2016 Variance (\$)	2016 Variance (%)	2017 Authorized	2017 Recorded	2017 Variance (\$)	2017 Variance (%)	Safety	Service Reliability	Maintenance	2016 Variance Explanation Required (y/n)	2017 Variance Explanation Required (y/n)
Distribution	588.220 - Distribution Grid Engineering And Technology	Distribution Grid Engineering and Technology - Includes the costs incurred by Shop Services and Instrumentation Division for daily operations of facilities, management of site and workforces, facility maintenance, and internal services; engineering, planning, and development of long-term system upgrades and modifications necessary to meet demand; and work on customer installations in inspecting premises and in rendering services to customers. Types of work performed on customer installations include radio, television and similar interference work including erection of new aerials on customers' premises and patrolling of lines, testing of lightning arresters, inspection of pole hardware, etc., and examination on or off premises of customers' appliances, wiring, or equipment to locate cause of interference. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 2	SCE-02, Vol. 03	4,110	2,539	(1,571)	-38%	4,176	2,147	(2,029)	-49%	y	y	y	n	n
Distribution	588.250 - Training And Safety Delivery And Seat-Time For Distribution Personnel	Training and Safety Delivery and Seat-Time for Distribution Personnel - Includes the cost of labor, materials used, and expenses incurred to develop and deliver training and safety programs to distribution personnel. The costs for maintaining distribution buildings and grounds and employee recognition are included in this account. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 9	SCE-02, Vol. 12	42,079	44,293	2,214	5%	42,835	45,957	3,122	7%	y	y	y	n	n
Distribution	588.260 - Electric Transportation And Technology Initiatives	Grid Modernization and Support Activities - Includes the cost of labor, materials used, and expenses for activities to support grid modernization and other related programs. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; and division overhead.	SCE-3, Vol. 2	SCE-02, Vol. 10	4,724	4,168	(556)	-12%	4,735	2,228	(2,507)	-53%	n	y	n	n	n
Distribution	588.261 - Consolidated Mobile Solutions Benefits & 593.120 - Planned Maintenance Of Distribution Overhead And Underground Lines And Equipment; Vegetation Management; And Apparatus Inspection And Maintenance	Consolidated Mobile Solutions Benefits - This activity forecasts benefits associated with Consolidated Mobile Solutions (CMS). Planned Maintenance of Distribution Overhead and Underground Lines and Equipment; Vegetation Management; and Apparatus Inspection and Maintenance - Includes the cost of labor, materials used and expenses incurred in the maintenance of overhead and underground distribution line facilities, distribution transformers, vegetation management, graffiti removal, apparatus inspections, and apparatus maintenance. Includes costs for activities such as: readjusting and changing position of guys or braces; realigning and straightening poles, cross-arms, braces, pins, racks, brackets, and other pole fixtures; tree-trimming; brush clearance; repairing pole supported platform; maintaining pole signs, stencils, tags, etc.; repairing line oil circuit breakers and associated relays and control wiring; repairing grounds; cleaning ducts, manholes, and sewer connections; moving or changing position of conduit or pipe; repairing circuit breakers, switches, cutouts, network protectors, and associated relays and control wiring. Costs for the inspection and maintenance of overhead and underground distribution apparatus are included in this account. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 2 SCE-3, Vol. 6		137,547	162,077	24,530	18%	138,334	176,081	37,747	27%	n	y	n	y	y
Distribution	588.271 - Productivity Benefits	Productivity Benefits - This activity forecasts benefits associated with Wires Investment Strategy Efficiency Review (WISER) and Consolidated Mobile Solutions (CMS).	SCE-3, Vol. 5		(2,884)	-	2,884	-100%	(2,876)	-	2,876	-100%	n	y	n	n	n
Distribution	589.140 - Design Construction & Maintenance - Distribution Line Rents	Design Construction & Maintenance - Distribution Line Rents - Includes rents of property of others used, occupied, or operated in connection with the distribution system. Includes payments to the United States and others for the use and occupancy of public lands and reservations for distribution line rights of way. This activity package has zero dollars; all costs have been transferred to 588.281.	SCE-3, Vol. 5	SCE-02, Vol. 13	-	-	-		-	-	-		n	n	y	n	n
Distribution	590.281 - Distribution Operational Excellence Savings	Distribution Operational Excellence (OPEX) Savings - This account includes savings resulting from the consolidation of finance functions attributable to distribution expenses.	SCE-3, Vol. 10		(3,379)	-	3,379	-100%	(3,408)	-	3,408	-100%	n	y	n	n	n
Distribution	592.150 - Substation Construction & Maintenance - Inspection And Maintenance Of Distribution Substation Equipment	Substation Construction & Maintenance - Supervision of Distribution Substation Maintenance - Includes the cost of labor and expenses incurred in the general supervision and direction of maintenance of distribution substation. This activity package has zero dollars; all costs have been transferred to 592.150.	SCE-3, Vol. 8	SCE-02, Vol. 06	14,867	13,462	(1,405)	-9%	15,128	14,358	(770)	-5%	y	y	y	n	n
Distribution	593.125 - Distribution Pole Repairs And Distribution Pole Related Expense	Includes the cost of labor, materials used and expenses incurred to make repairs to distribution poles as part of the Pole Loading Program or related to capital work in support of the Pole Loading Program. Examples include: installing or removing additional clamps or strain insulators on guys; readjusting and changing position of guys or braces; relocating crossarms, racks, brackets, and other fixtures on poles; and supporting fixtures and conductors and transferring them to new pole during poles replacement.	SCE-3, Vol 6	SCE-02, Vol. 09	10,587	3,242	(7,345)	-69%	10,744	3,494	(7,250)	-67%	y	y	y	y	y
Distribution	594.120 - Distribution Overhead And Underground Breakdown Maintenance	Includes the cost of labor, materials used and expenses incurred in the reactive maintenance of distribution line facilities. Examples of work includes: overhauling and repairing line cutouts, line switches, line breakers, and capacitors; refusing line cutouts; repairing line oil circuit breakers and associated relays and control wiring; repairing grounds; and resagging, retying, or rearranging position or spacing of conductors.	SCE-3, Vol. 6	SCE-02, Vol. 04	29,544	24,887	(4,657)	-16%	29,921	28,423	(1,498)	-5%	y	y	y	n	n

Category (Function)	2015 GRC Activity	Activity Description	2015 GRC Testimony Reference	2018 GRC Testimony Reference	2016 Authorized	2016 Recorded	2016 Variance (\$)	2016 Variance (%)	2017 Authorized	2017 Recorded	2017 Variance (\$)	2017 Variance (%)	Safety	Service Reliability	Maintenance	2016 Variance Explanation Required (y/n)	2017 Variance Explanation Required (y/n)
Distribution	598.170 - Grid Operations - Distribution Storm	Grid Operations - Distribution Storm - Includes the costs to patrol for and repair storm related damages and toxic waste disposal for distribution lines and facilities. Storm damage can be the result of severe weather conditions such as rain, wind, lightning, and by natural disasters such as earthquakes and forest fires. The storm costs included in this account are: switching, locating and isolating trouble on the system, removal of debris from lines or equipment, and securing damaged sites until repairs have been completed. Costs for toxic waste disposal include cleaning up hazardous waste dumped on SCE's distribution property and disposal of oil from electrical equipment. Includes related costs such as: transportation expenses; meals, traveling, lodging, and incidental expenses; division overhead; and supply and tool expense.	SCE-3, Vol. 7	SCE-02, Vol. 05	13,242	10,766	(2,476)	-19%	13,346	11,930	(1,416)	-11%	y	y	y	n	n
Distribution	598.250 - Distribution Toxic Waste Disposal	Distribution Toxic Waste Disposal - Includes payroll, automotive, and other expenses incurred in the inspection, sampling, testing, and cleaning of oil products or polychlorinated biphenyl (PCB) contamination caused by leakage and/or spillage. Also includes the costs incurred to clean-up and dispose of hazardous or toxic waste for transmission/substation equipment.	SCE-3, Vol. 9	SCE-02, Vol. 12	5,365	3,929	(1,436)	-27%	5,364	2,590	(2,774)	-52%	y	y	y	n	n
Distribution	598.281 - Accruals	Accruals - Includes the costs incurred for period-ending accruals of recognized expenses. There is no forecast expense for this activity.	SCE-3, Vol. 10	SCE-02, Vol. 13	-	-	-		-	-	-		n	n	y	n	n
Other	903.500 - Billing	This activity is used by the Application Services Division to record costs associated with application development and maintenance of Customer Services applications. Costs in this activity have been transferred to FERC Accounts 920-921.	SCE-4, Vol. 2	SCE-03, Vol. 01	23,754	30,701	6,947	29%	24,352	25,422	1,070	4%	n	n	y	y	n
Other	903.700 - Customer Choice Services	This activity consists of costs associated with maintaining ongoing business relationships with Energy Service Providers (ESPs) who serve customers in our service territory. This SCE-ESP business relationship is primarily achieved through an account management approach whereby a Customer Choice Services (CCS) representative is assigned to each ESP. CCS is also responsible for developing and providing information to ESPs on how to do business with SCE, facilitating the enrollment process, completing necessary forms and agreements, establishing ESP contracts and accounts in the SCE system, and providing ongoing administration and contract management. Finally, the CCS activity provides ongoing, daily operational assistance to ESPs on the relocations, assignments and switches allowed under the DA tariffs, and implements the on-going regulatory decisions related to ESPs and DA service. This activity package has zero dollars; all costs have been transferred to other activities.	SCE-4, Vol. 2	SCE-03, Vol. 01	-	279	279	100%	-	319	319	100%	n	n	y	n	n
Other	903.800 - Ccc And Phone Bills	This activity consists of costs associated with the Customer Contact Center to provide our customers with 24-hour telephone access to a SCE representative covering a full array of routine services and the costs for telephone billings and related expenses.	SCE-4, Vol. 2	SCE-03, Vol. 01	52,410	42,248	(10,162)	-19%	53,609	47,340	(6,269)	-12%	n	y	n	y	n
Other	920.220 - Real Properties	Real Properties - Includes salaries and miscellaneous expenses incurred for management, supervision and staff engaged in real estate planning, appraisal, negotiation and sales activities.	SCE-3, Vol. 2	SCE-02, Vol. 13	7,408	3,442	(3,966)	-54%	7,582	8,499	917	12%	n	y	n	n	n
Other	Client Services & Planning 920-921	Labor and non-labor to support efforts related to integrating information technologies within SCE organizational units	SCE-5, Vol. 1	SCE-04, Vol. 01	19,509	16,833	(2,676)	-14%	19,993	9,642	(10,351)	-52%	y	y	n	n	y
Other	Corporate Communications - 920-921 - Communications Operations	The labor and non-labor expenses associated with Corporate Communications are recorded in FERC Account 920/921. Corporate Communications activities help customers and the public stay safe around electrical infrastructure and to understand company and regulatory actions that affect them directly. Corporate Communications also oversees internal communications to ensure that employees have the information they need to work effectively and with purpose.	SCE-9, Vol. 1	SCE-08, Vol. 02	8,051	6,993	(1,058)	-13%	8,238	6,426	(1,812)	-22%	y	n	n	n	n
Other	Corporate Communications - 923 - Outside Services	FERC Account 923 includes non-labor expenses for the outside vendors contracted by Corporate Communications, such as public relations agencies specializing in ethnic media and for communication measurement services. This account also includes outside services associated with the Communications Quality Assurance program managed by the department.	SCE-9, Vol. 1	SCE-08, Vol. 02	911	4,132	3,221	354%	922	3,201	2,279	247%	y	n	n	n	n
Other	Corporate Communications - 930 - Communications Products	Corporate Communications records expenses to FERC Account 930 for: (1) the publication of the SEC-required annual report; (2) the design, production, and implementation of public safety education programs, including the development of related communications materials produced in multiple languages; and (3) costs for the Public Safety Around Electricity public education advertising campaign.	SCE-9, Vol. 1	SCE-08, Vol. 02	7,896	4,855	(3,041)	-39%	7,986	5,718	(2,268)	-28%	y	n	n	n	n
Other	Corporate Real Estate - 920-921	Corporate Real Estate's costs in Accounts 920/921 include salaries and miscellaneous expenses incurred for management, supervision and clerical staff, general architectural, engineering, facility planning and design, fire protection services, and long-range planning support. Also included are expenses incurred for janitorial and landscape care at SCE's facilities throughout our 50,000 square mile service territory, and costs for environmental studies and remedial action, as well as for the operation and servicing of lighting, electrical, air conditioning, heating, water, plumbing, water-heating systems and elevators.	SCE-8, Vol. 3	SCE-07, Vol. 03	26,452	18,315	(8,137)	-31%	26,994	27,458	464	2%	y	n	n	y	n
Other	Corporate Real Estate - 935		SCE-8, Vol. 3	SCE-07, Vol. 03	12,803	10,483	(2,320)	-18%	12,950	6,753	(6,197)	-48%	y	n	y	n	n
Other	Corporate Safety - 925		SCE-7, Vol. 3	SCE-07, Vol. 04	5,717	4,059	(1,658)	-29%	5,847	4,024	(1,823)	-31%	y	n	n	n	n

Category (Function)	2015 GRC Activity	Activity Description	2015 GRC Testimony Reference	2018 GRC Testimony Reference	2016 Authorized	2016 Recorded	2016 Variance (\$)	2016 Variance (%)	2017 Authorized	2017 Recorded	2017 Variance (\$)	2017 Variance (%)	Safety	Service Reliability	Maintenance	2016 Variance Explanation Required (y/n)	2017 Variance Explanation Required (y/n)
Other	Corporate Security - 920-921 - Business Resiliency	Includes salaries and expenses of personnel engaged in Business Resiliency activities. Business Resiliency's two fundamental responsibilities have been supporting the continuity of critical internal processes under abnormal conditions, and helping manage SCE's emergency planning and response – to avoid or minimize service disruptions, harm to individuals, and damage to assets. Several watershed events in recent years, however, have taught us that we need to fundamentally alter the mission of our organization by deepening our focus and broadening our scope to mitigate the impact of extreme emergencies on the company and the communities we serve.	SCE-7, Vol. 4	SCE-07, Vol. 01	4,397	6,071	1,674	38%	4,573	6,664	2,091	46%	y	y	n	n	n
Other	Corporate Security - 920-921	Corporate Security is to support the reliability of the electric system by physically protecting SCE's workforce, customers, facilities, and infrastructure from threats, disruptions, intrusions, theft, and property damage. Our team of security professionals is committed to assessing and responding to the security needs of SCE's workforce and customers, working cooperatively to design and provide innovative, economical, and progressive security solutions for safe and secure work spaces and customer service areas, preventing unauthorized access to critical grid assets, control systems, equipment and information, and complying with regulatory mandates.	SCE-7, Vol. 4	SCE-07, Vol. 05	43,417	27,053	(16,364)	-38%	43,912	25,801	(18,111)	-41%	y	y	n	y	y
Other	Corporate Security - 923	Corporate Security costs recorded to FERC account 923 are for background investigations performed by external service providers.	SCE-7, Vol. 4	SCE-07, Vol. 05	162	353	191	118%	164	175	11	7%	y	y	n	n	n
Other	Cybersecurity & Compliance 920-921	This activity is used to record costs associated with maintenance activities provided by Cybersecurity & Compliance. Costs recording in FERC Accounts 920-921 are SCE labor, office supplies, travel, training, and software licenses.	SCE-5, Vol. 1	SCE-04, Vol. 01	18,950	15,939	(3,011)	-16%	19,294	16,916	(2,378)	-12%	n	y	y	n	n
Other	Environmental Affairs - 920-921	As a regulated utility, SCE is subject to oversight by various state, federal, and local agencies including the California Public Utilities Commission, the California Energy Commission (CEC), and the Federal Energy Regulatory Commission (FERC). The Regulatory Affairs department has the primary responsibility for managing and directing all of SCE's regulatory activities before these agencies. These activities include serving as the Company's interface with the CPUC and FERC in developing and supporting tariffs that recover the Company's costs of providing utility service. The department is also responsible for maintaining liaisons and coordinating Company contacts with these regulatory agencies, as well as managing Company responses to their investigations and rulemakings related to broad issues of regulatory policy. Regulatory Affairs contributes to the Company's regulatory compliance activities. Additionally, Regulatory Affairs manages submissions and contacts with many other regulatory agencies in its efforts to obtain regulatory, legislative, and environmental approvals. These agencies include the CAISO, the California Environmental Protection Agency, plus many other governmental and non-governmental organizations. This group also manages Exempt Projects, Permits to Construct (PTC), and Certificate of Public Convenience and Necessity (CPCN) applications for new transmission or sub-transmission facilities.	SCE-9, Vol. 1	SCE-08, Vol. 02	3,257	1,543	(1,714)	-53%	3,325	1,215	(2,110)	-63%	n	n	y	n	n
Other	Infrastructure Technology Services - Network Rents - 931	Cost to support network rents	SCE-5, Vol. 1	SCE-04, Vol. 01	4,420	3,243	(1,177)	-27%	4,470	2,176	(2,294)	-51%	n	y	n	n	n
Other	Infrastructure Technology Services 920-921 & Incremental O&M For New Software Projects 920-921	Labor costs for contracted workers in support of Server Management/Hardware Management.	SCE-5, Vol. 1	SCE-04, Vol. 01	125,751	181,634	55,883	44%	127,958	200,185	72,227	56%	n	y	y	y	y
Other	Local Public Affairs - 920-921	FERC Account 920/921 captures salaries and expenses of the Local Public Affairs (LPA) department that provides communication with customers, local governments and communities in support of electrical safety education, storm and emergency response coordination with local governments, transmission system expansion and relocation, distribution system upgrades, operational issues impacting communities, and community education on state mandated policy initiatives. LPA conducts community outreach via local governments, non-profit organizations, neighborhood groups, government associations, chambers of commerce and various community based organizations. LPA supports the utility's operations by working directly with 206 franchises and the governments of 186 cities, 15 counties, 15 Native American tribes (13 federally recognized and two state recognized tribes), and 14 municipal utilities. LPA manages the community outreach related to siting and licensing of all new non-exempt transmission and substation projects that require a Certificate of Public Convenience and Necessity (CPCN) or a Permit to Construct (PTC) from the CPUC and federal licenses for transmission projects that cross federal land. LPA supports Transmission & Distribution in the construction of distribution projects including the installation of new, replacement, relocation, and underground subtransmission and distribution facilities.	SCE-9, Vol. 1	SCE-08, Vol. 02	14,112	6,458	(7,654)	-54%	14,460	6,491	(7,969)	-55%	y	n	n	y	y
Other	Technology Delivery & Maintenance 920-921	Labor and non-labor to support efforts related to integrating information technologies within SCE organizational units	SCE-5, Vol. 1	SCE-04, Vol. 01	52,841	29,615	(23,226)	-44%	53,963	34,282	(19,681)	-36%	y	y	n	y	y

2016 – 2017 Capital

Category (Function)	2015 GRC Activity	Activity Description	2015 GRC Testimony Reference	2018 GRC Testimony Reference	2016 Authorized	2016 Recorded	2016 Variance (\$)	2016 Variance (%)	2017 Authorized	2017 Recorded	2017 Variance (\$)	2017 Variance (%)	Safety	Service Reliability	Maintenance	2016 Variance Explanation Required (y/n)	2017 Variance Explanation Required (y/n)
Distribution	4kV Substation Elimination	The 4 kV Substation Elimination Program includes the elimination of substations to address equipment obsolescence, overloads, and reliability	SCE-03, Vol. 4	SCE-02, Vol. 03	87,267	107,452	20,185	23%	89,012	107,349	18,337	21%	y	y	n	y	y
Distribution	A/F CUST FUNDED	Added facilities projects SCE constructs when a load side customer requests non-standard service. These projects may include portions that are customer cost responsibility and portions that are rate payer funded	SCE-03, Vol. 3	SCE-02, Vol. 03	-	46	46	0%	-	256	256	0%	n	n	y	n	n
Distribution	ADVANCED TECH	Advanced Technology Program	SCE-03, Vol. 2	SCE-02, Vol. 11	8,591	1,641	(6,950)	-81%	8,763	9,002	240	3%	n	y	n	n	n
Distribution	ADVANCED TECH	Advanced Technology Program	SCE-03, Vol. 2	#N/A	211	-	(211)	-100%	215	(316)	(531)	-247%	y	y	n	n	n
Distribution	ADVANCED TECH	Advanced Technology Program	SCE-03, Vol. 3	SCE-02, Vol. 11	1,174	2,211	1,036	88%	1,198	773	(424)	-35%	y	y	n	n	n
Distribution	ADVANCED TECH	Advanced Technology Program	SCE-10, Vol. 2	#N/A	-	-	-	0%	-	-	-	0%	y	y	n	n	n
Distribution	BENEFITS	Benefits	SCE-03, Vol. 2	SCE-02, Vol. 11	(5,419)	-	5,419	-100%	(5,528)	-	5,528	-100%	y	y	n	n	n
Distribution	BPTI	Advanced Technology Program	SCE-03, Vol. 2	SCE-02, Vol. 03	-	(29)	(29)	0%	-	0	0	0%	n	n	y	n	n
Distribution	Cable Programs	Underground Cable Replacement	SCE-03, Vol. 4	SCE-02, Vol. 08	27,430	58,088	30,658	112%	27,979	33,165	5,186	19%	y	y	n	y	n
Distribution	Cable Programs	Underground Cable Replacement	SCE-03, Vol. 4	#N/A	183,318	95,851	(87,467)	-48%	186,984	168,513	(18,471)	-10%	y	y	n	n	n
Distribution	CATALINA DIESEL	Catalina Diesel Generation	SCE-02, Vol. 10	#N/A	-	-	-	0%	-	1,339	1,339	0%	y	y	n	n	n
Distribution	CIRCUIT AUTOMATION	Distribution Circuit Automation	SCE-03, Vol. 3	#N/A	7,200	6,924	(276)	-4%	7,344	5,962	(1,381)	-19%	n	y	n	n	n
Distribution	CONSRVTN VOLTAGE REG	Distribution Volt VAR Control Program	SCE-03, Vol. 3	#N/A	1,568	1,071	(497)	-32%	1,600	2,072	473	30%	y	y	n	n	n
Distribution	CUSTOMER REQUESTS	Distribution Added Facilities-Customer Financed	SCE-03, Vol. 5	SCE-02, Vol. 02	-	11,061	11,061	0%	-	-	-	0%	n	y	n	n	n
Distribution	CUSTOMER REQUESTS	Distribution Added Facilities-Customer Financed	SCE-03, Vol. 5	#N/A	4,362	2,345	(2,017)	-46%	4,450	9,386	4,936	111%	n	y	n	n	n
Distribution	DIST PLC POLE REPL	Distribution Pole Replacement	SCE-03, Vol. 6, Part 2	SCE-02, Vol. 08	-	7,765	7,765	0%	-	1,792	1,792	0%	n	y	n	n	n
Distribution	DISTR PORTABLE TOOLS	Distribution Portable Tools	SCE-03, Vol. 5	SCE-02, Vol. 05	3,148	3,178	30	1%	3,211	675	(2,537)	-79%	y	y	n	n	n
Distribution	DISTRIBUTION - STORM	Distribution Storm	SCE-03, Vol. 7	SCE-02, Vol. 05	43,964	64,865	20,901	48%	44,843	88,778	43,935	98%	n	n	y	y	y
Distribution	DISTRIBUTION RELO	Distribution Line Relocations	SCE-03, Vol. 3	SCE-02, Vol. 02	1,079	2,085	1,006	93%	1,100	-	(1,100)	-100%	y	y	n	n	n
Distribution	DISTRIBUTION RELO	Distribution Line Relocations	SCE-03, Vol. 5	SCE-02, Vol. 02	40,205	36,349	(3,856)	-10%	41,009	44,475	3,466	8%	y	y	n	n	n
Distribution	DSP CIRCUITS (353)	New Distribution Circuits	SCE-03, Vol. 2	SCE-02, Vol. 10	-	-	-	0%	-	2,419	2,419	0%	y	y	n	n	n
Distribution	EMERGENCY POLES	Emergency Distribution Pole Replacements	SCE-03, Vol. 6, Part 1	SCE-02, Vol. 04	1,049	9,425	8,376	798%	1,070	9,963	8,893	831%	y	y	n	n	n
Distribution	INSP DR PREV MTCE	Inspection Driven Preventive Maintenance	SCE-03, Vol. 6, Part 1	SCE-02, Vol. 04	108,592	122,051	13,459	12%	110,764	135,995	25,231	23%	y	y	n	n	y
Distribution	Meters	Includes the purchase of new meters	SCE-04, Vol. 2	SCE-03, Vol. 01	11,218	12,973	1,755	16%	11,442	(1)	(11,443)	-100%	y	y	n	n	n
Distribution	NEW BUS DR PREV MTCE	New Business Driven Preventive Maintenance	SCE-03, Vol. 6, Part 1	SCE-02, Vol. 03	-	0	0	0%	-	-	-	0%	n	n	y	n	n
Distribution	New Service Connections	Expenditures to connect new residential, commercial/industrial, and agricultural customers to the SCE system, and to provide street lighting systems to new developments	SCE-03, Vol. 5	SCE-02, Vol. 02	278,766	191,801	(86,965)	-31%	284,341	189,531	(94,810)	-33%	y	y	n	n	n
Distribution	New Service Connections	Expenditures to connect new residential, commercial/industrial, and agricultural customers to the SCE system, and to provide street lighting systems to new developments	SCE-03, Vol. 5	#N/A	42,465	33,299	(9,166)	-22%	43,315	23,488	(19,827)	-46%	n	y	n	n	n
Distribution	Overhead Conductor Prgm	Rebuild, repair or replace sections of circuits due to damaged conductor to prevent wire down events	SCE-03, Vol. 4	#N/A	-	30,593	30,593	0%	-	11,665	11,665	0%	n	y	n	y	n
Distribution	Overhead Conductor Prgm	Rebuild, repair or replace sections of circuits due to damaged conductor to prevent wire down events	SCE-03, Vol. 6, Part 1	SCE-02, Vol. 04	-	55,991	55,991	0%	-	112,170	112,170	0%	y	y	n	y	y
Distribution	Overhead Conductor Prgm	Rebuild, repair or replace sections of circuits due to damaged conductor to prevent wire down events	SCE-03, Vol. 6, Part 1	SCE-02, Vol. 08	-	10,746	10,746	0%	-	14,878	14,878	0%	y	y	n	n	n
Distribution	PLANT BETTERMENT	Distribution Plant Betterment	SCE-03, Vol. 3	SCE-02, Vol. 03	-	6,974	6,974	0%	-	588	588	0%	y	y	n	n	n
Distribution	PLANT BETTERMENT	Distribution Plant Betterment	SCE-03, Vol. 3	#N/A	8,114	16,314	8,201	101%	8,276	21,026	12,750	154%	n	n	y	n	y
Distribution	Poles	Includes costs associated with distribution and transmission pole replacements based on inspection results, Replacement of poles with noncompliant safety factor measurements due to loading, Program to replace steel streetlight poles with concrete streetlight poles due to corrosion	SCE-03, Vol. 6, Part 1	SCE-02, Vol. 04	-	64,007	64,007	0%	-	81,883	81,883	0%	n	n	y	y	y
Distribution	Poles	Includes costs associated with distribution and transmission pole replacements based on inspection results, Replacement of poles with noncompliant safety factor measurements due to loading, Program to replace steel streetlight poles with concrete streetlight poles due to corrosion	SCE-03, Vol. 6, Part 1	SCE-02, Vol. 09	116,526	310,102	193,576	166%	118,856	240,709	121,853	103%	y	y	n	n	y
Distribution	Poles	Includes costs associated with distribution and transmission pole replacements based on inspection results, Replacement of poles with noncompliant safety factor measurements due to loading, Program to replace steel streetlight poles with concrete streetlight poles due to corrosion	SCE-03, Vol. 6, Part 1	#N/A	(14,023)	(100)	13,923	-99%	(14,303)	(242)	14,061	-98%	y	y	n	n	n
Distribution	Poles	Includes costs associated with distribution and transmission pole replacements based on inspection results, Replacement of poles with noncompliant safety factor measurements due to loading, Program to replace steel streetlight poles with concrete streetlight poles due to corrosion	SCE-03, Vol. 6, Part 2	SCE-02, Vol. 09	244,456	19,898	(224,558)	-92%	249,345	(17,980)	(267,325)	-107%	y	y	n	n	n
Distribution	Poles	Includes costs associated with distribution and transmission pole replacements based on inspection results, Replacement of poles with noncompliant safety factor measurements due to loading, Program to replace steel streetlight poles with concrete streetlight poles due to corrosion	SCE-03, Vol. 6, Part 2	#N/A	-	-	-	0%	-	17	17	0%	y	y	n	n	n
Distribution	Poles	Includes costs associated with distribution and transmission pole replacements based on inspection results, Replacement of poles with noncompliant safety factor measurements due to loading, Program to replace steel streetlight poles with concrete streetlight poles due to corrosion	SCE-03, Vol. 7	SCE-02, Vol. 05	-	-	-	0%	-	81	81	0%	n	n	y	n	n
Distribution	PREFAB (395)	Distribution Prefabrication	SCE-03, Vol. 5	SCE-02, Vol. 05	26,553	13,659	(12,894)	-49%	27,084	15,183	(11,902)	-44%	y	y	n	n	n

Category (Function)	2015 GRC Activity	Activity Description	2015 GRC Testimony Reference	2018 GRC Testimony Reference	2016 Authorized	2016 Recorded	2016 Variance (\$)	2016 Variance (%)	2017 Authorized	2017 Recorded	2017 Variance (\$)	2017 Variance (%)	Safety	Service Reliability	Maintenance	2016 Variance Explanation Required (y/n)	2017 Variance Explanation Required (y/n)
Distribution	Preventive Maintenance	Includes the replacement of various distribution equipment whose need for replacement was identified through inspection	SCE-03, Vol. 6, Part 1	SCE-02, Vol. 04	143,209	132,978	(10,231)	-7%	146,073	126,546	(19,527)	-13%	y	y	n	n	n
Distribution	Preventive Maintenance	Includes the replacement of various distribution equipment whose need for replacement was identified through inspection	SCE-10, Vol. 2	SCE-02, Vol. 04	-	3,862	3,862	0%	-	-	-	0%	n	y	n	n	n
Distribution	REMOVE IDLE FAC	Removal of Idle Distribution Facilities	SCE-03, Vol. 6, Part 1	SCE-02, Vol. 04	6,715	9,395	2,680	40%	6,850	7,607	757	11%	n	n	y	n	n
Distribution	ROUTINE BUSINESS	Meters	SCE-04, Vol. 2	SCE-03, Vol. 01	-	-	-	0%	-	(4)	(4)	0%	y	y	n	n	n
Distribution	SSID	SSID Tools & Equipment	SCE-03, Vol. 5	SCE-02, Vol. 03	2,284	0	(2,284)	-100%	2,330	-	(2,330)	-100%	y	y	n	n	n
Distribution	STREETLIGHTS	Streetlight Maintenance	SCE-03, Vol. 7	SCE-02, Vol. 05	37,295	28,623	(8,671)	-23%	38,041	34,419	(3,622)	-10%	y	n	n	n	n
Distribution	SUBS LAB EQUIP	Substation Lab Equipment	SCE-03, Vol. 8	SCE-02, Vol. 06	147	4,697	4,549	3090%	150	4,599	4,449	2962%	n	n	y	n	n
Distribution	SUBS MTCE & TST PL	Substation Planned Replacements	SCE-03, Vol. 8	SCE-02, Vol. 06	11,537	8,265	(3,272)	-28%	11,768	2,156	(9,612)	-82%	n	y	n	n	n
Distribution	SUBS MTCE & TST UNPL	Substation Unplanned Replacements	SCE-03, Vol. 8	SCE-02, Vol. 06	8,187	12,703	4,516	55%	8,350	13,102	4,752	57%	n	y	n	n	n
Distribution	SUBS PORTABLE TOOLS	Substation Portable Tools	SCE-03, Vol. 8	SCE-02, Vol. 06	2,067	1,826	(241)	-12%	2,108	1,560	(548)	-26%	n	y	n	n	n
Distribution	SUBSTATION - STORM	Substation Storm	SCE-03, Vol. 7	SCE-02, Vol. 07	331	2,910	2,579	778%	338	195	(143)	-42%	n	y	n	n	n
Distribution	SWITCH REPLACEMENT	Emergency Distribution Pole Replacements	SCE-03, Vol. 4	#N/A	9,818	17,566	7,748	79%	10,014	19,129	9,115	91%	n	y	n	n	n
Distribution	TRANS LAB EQUIP	Transmission Lab Equipment	SCE-03, Vol. 8	SCE-02, Vol. 07	57	69	12	21%	59	280	222	378%	n	y	n	n	n
Distribution	TRANS PORTABLE TOOLS	Transmission Line Portable Tools	SCE-03, Vol. 8	SCE-02, Vol. 07	460	1,205	745	162%	469	970	501	107%	y	y	n	n	n
Distribution	TRANSFORMERS (580)	Distribution Line Transformers	SCE-03, Vol. 5	SCE-02, Vol. 02	95,948	91,360	(4,588)	-5%	97,867	103,298	5,431	6%	y	y	n	n	n
Distribution	UG STRUCTURE REPL	Underground Structure Replacements	SCE-03, Vol. 6, Part 1	SCE-02, Vol. 05	58,905	76,014	17,109	29%	60,083	52,231	(7,852)	-13%	n	y	n	y	n
Generation	BLANKET - DIVISION	Routine replacement of furniture and office equipment, portable tools, laboratory, test and technical equipment	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 04	-	-	-	0%	-	-	-	0%	n	y	n	n	n
Generation	BLANKET - DIVISION	Routine replacement of furniture and office equipment, portable tools, laboratory, test and technical equipment	SCE-02, Vol. 7, Part 2	#N/A	-	-	-	0%	-	36	36	0%	n	y	n	n	n
Generation	BLANKET - HE	Routine replacement of furniture and office equipment, portable tools, laboratory, test and technical equipment	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	-	98	98	0%	-	78	78	0%	n	n	y	n	n
Generation	BLANKET - HN	Routine replacement of furniture and office equipment, portable tools, laboratory, test and technical equipment	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	-	1,107	1,107	0%	-	(133)	(133)	0%	y	y	n	n	n
Generation	BLANKET - PEAKERS	Routine replacements of office equipment, furniture, tools, spare parts	SCE-02, Vol. 9, Chapter 5	SCE-05, Vol. 04	23	-	(23)	-100%	24	-	(24)	-100%	y	y	n	n	n
Generation	BLANKET SPV	PPD Solar Photovoltaic Spare Parts	SCE-02, Vol. 10	SCE-05, Vol. 05	1,056	3	(1,053)	-100%	1,077	-	(1,077)	-100%	y	n	n	n	n
Generation	Dams and Waterways	Dams and Waterways projects include the rebuilding of reservoirs, flowlines, or flumes, installation of flow measurement equipment, replacement of valves, and installation of debris removal equipment or fish screens	SCE-02, Vol. 7, Part 2	EXCLUDED - BEYOND 2020	5,865	50	(5,815)	-99%	5,982	1,344	(4,638)	-78%	y	n	n	n	n
Generation	Dams and Waterways	Dams and Waterways projects include the rebuilding of reservoirs, flowlines, or flumes, installation of flow measurement equipment, replacement of valves, and installation of debris removal equipment or fish screens	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	12,723	3,488	(9,235)	-73%	12,978	18,541	5,563	43%	y	y	n	n	n
Generation	Dams and Waterways - HN	Dams and Waterways projects include the rebuilding of reservoirs, flowlines, or flumes, installation of flow measurement equipment, replacement of valves, and installation of debris removal equipment or fish screens	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	-	-	-	0%	-	2	2	0%	n	y	n	n	n
Generation	Dams and Waterways - HN	Dams and Waterways projects include the rebuilding of reservoirs, flowlines, or flumes, installation of flow measurement equipment, replacement of valves, and installation of debris removal equipment or fish screens	SCE-02, Vol. 7, Part 2	#N/A	-	-	-	0%	-	-	-	0%	y	y	n	n	n
Generation	Dams and Waterways - HN	Dams and Waterways projects include the rebuilding of reservoirs, flowlines, or flumes, installation of flow measurement equipment, replacement of valves, and installation of debris removal equipment or fish screens	SCE-10, Vol. 2	EXCLUDED - BEYOND 2020	-	-	-	0%	-	277	277	0%	y	y	n	n	n
Generation	Dams and Waterways - HN	Dams and Waterways projects include the rebuilding of reservoirs, flowlines, or flumes, installation of flow measurement equipment, replacement of valves, and installation of debris removal equipment or fish screens	SCE-10, Vol. 2	SCE-05, Vol. 03	-	81	81	0%	-	2	2	0%	y	y	n	n	n
Generation	Dams and Waterways - HN	Dams and Waterways projects include the rebuilding of reservoirs, flowlines, or flumes, installation of flow measurement equipment, replacement of valves, and installation of debris removal equipment or fish screens	SCE-10, Vol. 2	#N/A	-	-	-	0%	-	0	0	0%	y	y	n	n	n
Generation	DAMS AND WTRWYS-HE	Dams and Waterways projects include the rebuilding of reservoirs, flowlines, or flumes, installation of flow measurement equipment, replacement of valves, and installation of debris removal equipment or fish screens	SCE-10, Vol. 2	EXCLUDED - BEYOND 2020	-	-	-	0%	-	1,135	1,135	0%	y	y	n	n	n
Generation	DAMS AND WTRWYS-HE	Dams and Waterways projects include the rebuilding of reservoirs, flowlines, or flumes, installation of flow measurement equipment, replacement of valves, and installation of debris removal equipment or fish screens	SCE-10, Vol. 2	SCE-05, Vol. 03	-	77	77	0%	-	174	174	0%	y	y	n	n	n
Generation	DAMS AND WTRWYS-HE	Dams and Waterways projects include the rebuilding of reservoirs, flowlines, or flumes, installation of flow measurement equipment, replacement of valves, and installation of debris removal equipment or fish screens	SCE-10, Vol. 2	#N/A	-	-	-	0%	-	0	0	0%	y	y	n	n	n
Generation	DAMS AND WTRWYS-HN	Dams and Waterways projects include the rebuilding of reservoirs, flowlines, or flumes, installation of flow measurement equipment, replacement of valves, and installation of debris removal equipment or fish screens	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	1,275	217	(1,058)	-83%	1,301	2,265	965	74%	y	y	n	n	n
Generation	GENERAL - MNTNVIEW	MVGS Various Mountain View Projects	SCE-02, Vol. 8	SCE-05, Vol. 04	-	279	279	0%	-	7,030	7,030	0%	y	y	n	n	n
Generation	GENERAL - PEAKERS	Peaker Unforeseen Cap Repl/Additions, gas compressor and office/shops labs	SCE-02, Vol. 9, Chapter 5	SCE-05, Vol. 04	3,075	3,189	113	4%	3,137	4,971	1,834	58%	y	y	n	n	n
Generation	Hydro Capital - Blanket Division	Routine replacement of furniture and office equipment, portable tools, laboratory, test and technical equipment	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 04	-	10,244	10,244	0%	-	(965)	(965)	0%	y	y	n	n	n
Generation	Hydro Capital - Misc Electrical	Control systems, switchgear, transformers	SCE-02, Vol. 7, Part 2	EXCLUDED - BEYOND 2020	510	-	(510)	-100%	520	-	(520)	-100%	y	y	n	n	n
Generation	Hydro Capital - Misc Electrical	Control systems, switchgear, transformers	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	32,416	1,815	(30,601)	-94%	33,064	4,799	(28,265)	-85%	y	y	n	n	n

Category (Function)	2015 GRC Activity	Activity Description	2015 GRC Testimony Reference	2018 GRC Testimony Reference	2016 Authorized	2016 Recorded	2016 Variance (\$)	2016 Variance (%)	2017 Authorized	2017 Recorded	2017 Variance (\$)	2017 Variance (%)	Safety	Service Reliability	Maintenance	2016 Variance Explanation Required (y/n)	2017 Variance Explanation Required (y/n)
Generation	Hydro Capital - Misc Electrical	Control systems, switchgear, transformers	SCE-02, Vol. 7, Part 2	#N/A	-	-	-	0%	-	-	-	0%	y	y	n	n	n
Generation	Hydro Capital - Specific NHD	Northern Hydro Substation Infrastructure projects	SCE-02, Vol. 7, Part 2	EXCLUDED - BEYOND 2020	11,019	(532)	(11,551)	-105%	11,239	-	(11,239)	-100%	y	y	n	n	n
Generation	Hydro Capital - Specific NHD	Northern Hydro Substation Infrastructure projects	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	765	-	(765)	-100%	780	126	(655)	-84%	y	y	n	n	n
Generation	Hydro Capital - Specific NHD	Northern Hydro Substation Infrastructure projects	SCE-02, Vol. 7, Part 2	#N/A	-	-	-	0%	-	-	-	0%	y	y	n	n	n
Generation	HYDRO NO CORE BASE	Includes the replacement of various Hydro equipment	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	5,253	4,500	(753)	-14%	5,358	2,731	(2,627)	-49%	y	y	n	n	n
Generation	MISC ELECTRICAL-HN	Control systems, switchgear, transformers	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	2,040	101	(1,939)	-95%	2,081	249	(1,832)	-88%	y	y	n	n	n
Generation	MISC ELECTRICAL-HN	Control systems, switchgear, transformers	SCE-10, Vol. 2	SCE-05, Vol. 03	-	-	-	0%	-	116	116	0%	y	y	n	n	n
Generation	MISC STRCT GRND-HE	Road improvements and paving	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	413	116	(297)	-72%	421	1,214	792	188%	y	y	n	n	n
Generation	MISC STRCT GRND-HE	Road improvements and paving	SCE-10, Vol. 2	SCE-05, Vol. 03	-	-	-	0%	-	-	-	0%	y	y	n	n	n
Generation	MISC STRCT GRND-HN	Road improvements and paving	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	1,734	1,374	(360)	-21%	1,769	477	(1,291)	-73%	y	y	n	n	n
Generation	Mountain View - Blanket	Routine replacements of office equipment, furniture, tools, spare parts	SCE-02, Vol. 8	SCE-05, Vol. 04	1,154	(23,928)	(25,082)	-2174%	1,177	221	(956)	-81%	y	n	n	n	n
Generation	Mountain View - Specific	MVGS Yucaipa Valley Brine Line Expansion, Units 3&4 GT Compressor Upgrade, and Unit 3B Compressor Stub Shaft	SCE-02, Vol. 8	SCE-05, Vol. 04	-	62,256	62,256	0%	-	544	544	0%	y	n	n	y	n
Generation	PALO VERDE	Maintenance of capital projects as necessary to support safe operation of the plant to meet regulatory requirements, optimize and increase reliable plant operation	SCE-02, Vol. 3	SCE-05, Vol. 01	32,232	36,116	3,884	12%	32,877	34,857	1,981	6%	y	n	n	n	n
Generation	PRIME MOVERS - HE	Water driven tubines and generators	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	4,539	2,404	(2,135)	-47%	4,630	1,156	(3,474)	-75%	y	y	n	n	n
Generation	PRIME MOVERS - HN	Water driven tubines and generators	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	2,244	8,718	6,474	289%	2,289	2,703	414	18%	y	y	n	n	n
Generation	RELICENSING - HN	FERC Relicensing, including mitigation costs	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	9,098	1,025	(8,073)	-89%	9,280	930	(8,350)	-90%	n	n	y	n	n
Generation	RELICENSING - HN	FERC Relicensing, including mitigation costs	SCE-10, Vol. 2	SCE-05, Vol. 03	-	2,701	2,701	0%	-	70	70	0%	y	y	n	n	n
Generation	SPECIFIC - PEAKERS	Miscellaneous Equipment	SCE-02, Vol. 9, Chapter 5	SCE-05, Vol. 04	5	7,197	7,192	141015%	5	2,338	2,333	44839%	y	y	n	n	n
Generation	SPECIFIC - SC	PPD SPVP Construction	SCE-02, Vol. 10	SCE-05, Vol. 05	-	1	1	0%	-	(7)	(7)	0%	y	y	n	n	n
Generation	SPECIFIC NHD	Northern Hydro Substation Infrastructure projects	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	-	-	-	0%	-	(42)	(42)	0%	y	y	n	n	n
Generation	SPECIFIC NHD	Northern Hydro Substation Infrastructure projects	SCE-10, Vol. 2	SCE-05, Vol. 03	-	(0)	(0)	0%	-	-	-	0%	y	y	n	n	n
Generation	STRUCTRS & GRNDS-HE	Powerhouse structures, support buildings and roads	SCE-02, Vol. 7, Part 2	SCE-05, Vol. 03	102	1,004	902	884%	104	1,185	1,081	1039%	n	y	n	n	n
Generation	STRUCTRS & GRNDS-HE	Powerhouse structures, support buildings and roads	SCE-10, Vol. 2	SCE-05, Vol. 03	-	-	-	0%	-	-	-	0%	y	y	n	n	n
Other	Bldg. Renovation - Operational Services	Corporate real estate upgrades and renovations projects to preserve the value and use of facilities	SCE-08, Vol. 3, Part 2	SCE-07, Vol. 03	18,500	53,124	34,623	187%	18,870	50,548	31,678	168%	n	n	y	y	y
Other	Bldg. Renovation - Operational Services	Corporate real estate upgrades and renovations projects to preserve the value and use of facilities	SCE-08, Vol. 3, Part 2	#N/A	-	-	-	0%	-	1	1	0%	n	n	y	n	n
Other	Capitalized Software - Arch Engrg	Shared Enterprise Integration Services and Upgrades	SCE-05, Vol. 1	SCE-04, Vol. 01	14,280	2,983	(11,297)	-79%	14,566	173	(14,392)	-99%	n	n	y	n	n
Other	Capitalized Software - Arch Engrg	Shared Enterprise Integration Services and Upgrades	SCE-05, Vol. 2, Part 1	SCE-04, Vol. 01	11,749	-	(11,749)	-100%	11,984	-	(11,984)	-100%	n	n	y	n	n
Other	Capitalized Software - Arch Engrg	Shared Enterprise Integration Services and Upgrades	SCE-05, Vol. 2, Part 1	SCE-04, Vol. 02	-	874	874	0%	-	464	464	0%	n	n	y	n	n
Other	Capitalized Software - Arch Engrg	Shared Enterprise Integration Services and Upgrades	SCE-10, Vol. 2	SCE-04, Vol. 01	-	686	686	0%	-	(90)	(90)	0%	n	n	y	n	n
Other	Capitalized Software - CCI	Center for Continuous Improvement for SAP support required by SCE's license agreement with SAP	SCE-05, Vol. 2, Part 1	SCE-04, Vol. 02	16,532	-	(16,532)	-100%	16,863	16,610	(253)	-1%	n	n	y	n	n
Other	Capitalized Software - Project Management	Capital projects used for O&M Analysis	SCE-03, Vol. 2	#N/A	-	-	-	0%	-	-	-	0%	y	y	n	n	n
Other	Capitalized Software - Project Management	Capital projects used for O&M Analysis	SCE-05, Vol. 2, Part 1	Other	-	2,481	2,481	0%	-	2,469	2,469	0%	y	y	n	n	n
Other	Capitalized Software - Project Management	Capital projects used for O&M Analysis	SCE-05, Vol. 2, Part 1	SCE-02, Vol. 10	-	8,838	8,838	0%	-	12,977	12,977	0%	y	y	n	n	n
Other	Capitalized Software - Project Management	Capital projects used for O&M Analysis	SCE-05, Vol. 2, Part 1	SCE-04, Vol. 02	87,871	58,574	(29,297)	-33%	89,628	33,167	(56,462)	-63%	y	y	n	n	n
Other	Capitalized Software - Project Management	Capital projects used for O&M Analysis	SCE-05, Vol. 2, Part 1	#N/A	-	-	-	0%	-	0	0	0%	y	y	n	n	n
Other	Capitalized Software - Project Management	Capital projects used for O&M Analysis	SCE-05, Vol. 2, Part 2	SCE-04, Vol. 02	26,826	23,485	(3,341)	-12%	27,363	55,083	27,721	101%	y	y	n	n	y
Other	Capitalized Software - Project Management	Capital projects used for O&M Analysis	SCE-05, Vol. 2, Part 2	SCE-04, Vol. 03	-	-	-	0%	-	2,057	2,057	0%	y	y	n	n	n
Other	Capitalized Software - Project Management	Capital projects used for O&M Analysis	SCE-05, Vol. 2, Part 2	#N/A	5,610	-	(5,610)	-100%	5,722	-	(5,722)	-100%	y	y	n	n	n
Other	Capitalized Software - Risk Management	Capital projects used for O&M Analysis (NERC CIP, Perimeter Defense, Data Protection, Interior Defense)	SCE-03, Vol. 3	SCE-04, Vol. 02	-	3,254	3,254	0%	-	3,308	3,308	0%	n	n	y	n	n
Other	Capitalized Software - Risk Management	Capital projects used for O&M Analysis (NERC CIP, Perimeter Defense, Data Protection, Interior Defense)	SCE-05, Vol. 2, Part 1	SCE-04, Vol. 02	27,396	17,138	(10,258)	-37%	27,944	49,336	21,392	77%	y	y	n	n	y
Other	COMPUTING SERVICES	Building a scalable and reliable applications infrastructure critical to enabling business operations and providing business continuity services 24-hours a day, and seven days a week	SCE-05, Vol. 1	SCE-04, Vol. 01	21,537	16,569	(4,968)	-23%	21,968	38,759	16,791	76%	y	y	n	n	y
Other	COMPUTING SERVICES	Building a scalable and reliable applications infrastructure critical to enabling business operations and providing business continuity services 24-hours a day, and seven days a week	SCE-05, Vol. 1	SCE-04, Vol. 02	-	(45)	(45)	0%	-	-	-	0%	y	y	n	n	n
Other	COMPUTING SERVICES	Building a scalable and reliable applications infrastructure critical to enabling business operations and providing business continuity services 24-hours a day, and seven days a week	SCE-05, Vol. 2, Part 1	SCE-04, Vol. 02	2,550	40,518	37,968	1489%	2,601	36,436	33,835	1301%	y	y	n	y	y

Category (Function)	2015 GRC Activity	Activity Description	2015 GRC Testimony Reference	2018 GRC Testimony Reference	2016 Authorized	2016 Recorded	2016 Variance (\$)	2016 Variance (%)	2017 Authorized	2017 Recorded	2017 Variance (\$)	2017 Variance (%)	Safety	Service Reliability	Maintenance	2016 Variance Explanation Required (y/n)	2017 Variance Explanation Required (y/n)
Other	COMPUTING SERVICES	Building a scalable and reliable applications infrastructure critical to enabling business operations and providing business continuity services 24-hours a day, and seven days a week	SCE-10, Vol. 2	SCE-04, Vol. 01	-	-	-	0%	-	16,879	16,879	0%	y	y	n	n	n
Other	CR	Administrative Facilities Infrastructure update program	SCE-08, Vol. 3, Part 2	SCE-07, Vol. 03	320	-	(320)	-100%	326	-	(326)	-100%	y	n	n	n	n
Other	CREDEPTFURNEQUIP	SCE ERGO Equipment	SCE-08, Vol. 3, Part 2	SCE-07, Vol. 03	400	320	(80)	-20%	408	8,119	7,711	1890%	y	n	n	n	n
Other	CSEPEP	Security Assets Enhancement Program	SCE-07, Vol. 4	SCE-07, Vol. 05	4,692	666	(4,026)	-86%	4,786	56	(4,730)	-99%	y	y	n	n	n
Other	CSEPFURNEQUIP	Corporate Security for F&E, NERC CIP v5 Critical Infrastructure Protection and workplace improvement	SCE-07, Vol. 4	SCE-07, Vol. 05	10,200	4,704	(5,496)	-54%	10,404	(130)	(10,534)	-101%	y	y	n	n	n
Other	CSEPSecuritySYS	Corporate Security Security Systems	SCE-07, Vol. 4	SCE-07, Vol. 05	2,896	1,291	(1,605)	-55%	2,954	21,911	18,958	642%	y	y	n	n	y
Other	DATA CENTER	Midrange Enterprise Servers Hardware	SCE-05, Vol. 1	SCE-04, Vol. 01	13,872	17,474	3,602	26%	14,149	25,063	10,914	77%	n	n	y	n	y
Other	EH&S	EH&S Operational Equipment	SCE-07, Vol. 3	SCE-07, Vol. 02	-	532	532	0%	-	707	707	0%	y	n	n	n	n
Other	Energy Efficiency - Operational Services	Repair, maintenance and upgrade for energy efficiency that reduces consumption of electricity and water	SCE-08, Vol. 3, Part 2	SCE-07, Vol. 01	-	2,071	2,071	0%	-	7,492	7,492	0%	y	y	n	n	n
Other	Energy Efficiency - Operational Services	Repair, maintenance and upgrade for energy efficiency that reduces consumption of electricity and water	SCE-08, Vol. 3, Part 2	SCE-07, Vol. 03	2,412	1,175	(1,237)	-51%	2,461	6,923	4,462	181%	y	y	n	n	n
Other	Information Technology - Service Management	Hardware Replacement	SCE-05, Vol. 1	SCE-04, Vol. 01	7,367	18,493	11,125	151%	7,515	17,446	9,931	132%	y	y	n	y	n
Other	Information Technology - Service Management	Hardware Replacement	SCE-05, Vol. 1	SCE-04, Vol. 02	-	2,628	2,628	0%	-	946	946	0%	y	y	n	n	n
Other	Information Technology - Service Management	Hardware Replacement	SCE-05, Vol. 1	#N/A	1,943	-	(1,943)	-100%	1,982	-	(1,982)	-100%	y	y	n	n	n
Other	LEASEDPROPERTY	Lease exits for Brea, La Palma and San Dimas	SCE-08, Vol. 3, Part 2	SCE-07, Vol. 03	-	-	-	0%	-	-	-	0%	y	n	n	n	n
Other	Maintenance Asset Mgmt - Operational Services	Capital Mtce Projects	SCE-08, Vol. 3, Part 2	SCE-07, Vol. 03	19,301	25,071	5,771	30%	19,687	45,959	26,272	133%	y	y	n	n	y
Other	NETWORK SERVICES	Capital projects used for O&M Analysis	SCE-03, Vol. 3	EXCLUDED - BEYOND 2020	2,153	2	(2,151)	-100%	2,196	1	(2,195)	-100%	n	n	y	n	n
Other	NETWORK SERVICES	Capital projects used for O&M Analysis	SCE-03, Vol. 3	SCE-02, Vol. 03	5,763	12,134	6,370	111%	5,879	13,583	7,704	131%	n	n	y	n	n
Other	NETWORK SERVICES	Capital projects used for O&M Analysis	SCE-03, Vol. 3	SCE-02, Vol. 06	416	1,280	864	208%	424	1,407	983	232%	n	n	y	n	n
Other	NETWORK SERVICES	Capital projects used for O&M Analysis	SCE-03, Vol. 3	SCE-02, Vol. 10	557	2,549	1,992	358%	568	10,015	9,447	1663%	n	n	y	n	n
Other	NETWORK SERVICES	Capital projects used for O&M Analysis	SCE-03, Vol. 3	SCE-04, Vol. 01	510	526	16	3%	520	25	(495)	-95%	n	n	y	n	n
Other	NETWORK SERVICES	Capital projects used for O&M Analysis	SCE-03, Vol. 3	SCE-04, Vol. 02	-	7,750	7,750	0%	-	36,253	36,253	0%	n	n	y	n	y
Other	NETWORK SERVICES	Capital projects used for O&M Analysis	SCE-03, Vol. 3	SCE-07, Vol. 03	3,876	10,048	6,172	159%	3,954	6,047	2,093	53%	n	n	y	n	n
Other	NETWORK SERVICES	Capital projects used for O&M Analysis	SCE-03, Vol. 3	#N/A	9,610	-	(9,610)	-100%	9,802	19	(9,783)	-100%	n	n	y	n	n
Other	NETWORK SERVICES	Capital projects used for O&M Analysis	SCE-03, Vol. 8	SCE-02, Vol. 06	353	72	(281)	-80%	360	89	(271)	-75%	n	n	y	n	n
Other	NETWORK SERVICES	Capital projects used for O&M Analysis	SCE-03, Vol. 8	#N/A	-	-	-	0%	-	-	-	0%	n	n	y	n	n
Other	NETWORK SERVICES	Capital projects used for O&M Analysis	SCE-05, Vol. 1	SCE-02, Vol. 03	-	(3)	(3)	0%	-	0	0	0%	n	n	y	n	n
Other	NETWORK SERVICES	Capital projects used for O&M Analysis	SCE-05, Vol. 1	SCE-02, Vol. 10	3,780	4,293	513	14%	3,855	4,846	991	26%	n	n	y	n	n
Other	NETWORK SERVICES	Capital projects used for O&M Analysis	SCE-05, Vol. 1	SCE-04, Vol. 01	37,121	37,035	(85)	0%	37,863	41,906	4,043	11%	n	n	y	n	n
Other	NETWORK SERVICES	Capital projects used for O&M Analysis	SCE-07, Vol. 4	SCE-04, Vol. 02	4,080	(26)	(4,106)	-101%	4,162	(106)	(4,267)	-103%	n	n	y	n	n
Other	NETWORK SERVICES	Capital projects used for O&M Analysis	SCE-08, Vol. 3, Part 2	SCE-07, Vol. 03	5,523	-	(5,523)	-100%	5,634	-	(5,634)	-100%	n	n	y	n	n
Other	New Asset CRE - Operational Services	CR Additional Facilities for 2010-2014	SCE-08, Vol. 3, Part 2	SCE-07, Vol. 03	38,528	7,546	(30,982)	-80%	39,299	372	(38,927)	-99%	y	n	n	n	n
Other	NOT SPECIFIED	Specific Projects Outside of GRC Window	SCE-03, Vol. 3	SCE-02, Vol. 03	4,473	1,253	(3,220)	-72%	4,563	76	(4,487)	-98%	n	n	y	n	n
Other	NOT SPECIFIED	Specific Projects Outside of GRC Window	SCE-03, Vol. 3	SCE-02, Vol. 10	832	(26)	(858)	-103%	849	260	(589)	-69%	n	n	y	n	n
Other	OPERATIONS - IT	Capital projects used for O&M Analysis	SCE-03, Vol. 3	SCE-02, Vol. 03	2,744	-	(2,744)	-100%	2,799	-	(2,799)	-100%	n	n	y	n	n
Other	OPERATIONS - IT	Capital projects used for O&M Analysis	SCE-05, Vol. 1	SCE-04, Vol. 01	6,046	-	(6,046)	-100%	6,167	-	(6,167)	-100%	y	y	n	n	n
Other	OPERATIONS - IT	Capital projects used for O&M Analysis	SCE-05, Vol. 1	SCE-04, Vol. 02	20,094	3,193	(16,901)	(1)	20,496	559	(19,937)	(1)	y	y	n	n	n
Other	OPERATIONS - IT	Capital projects used for O&M Analysis	SCE-05, Vol. 1	#N/A	867	-	(867)	(1)	884	-	(884)	(1)	y	y	n	n	n
Other	OPERATIONS - IT	Capital projects used for O&M Analysis	SCE-05, Vol. 2, Part 1	SCE-04, Vol. 01	1,222	-	(1,222)	(1)	1,246	-	(1,246)	(1)	y	y	n	n	n
Other	OPERATIONS - IT	Capital projects used for O&M Analysis	SCE-07, Vol. 4	SCE-04, Vol. 02	643	215	(427)	(1)	655	-	(655)	(1)	n	n	y	n	n
Other	OSSUPPORTFURNEQUIP	Operation Support Services F&E	SCE-08, Vol. 3, Part 2	SCE-07, Vol. 01	-	1,948	1,948	-	-	-	-	-	y	y	n	n	n
Other	PROJECT MANAGEMENT	Capital projects used for O&M Analysis	SCE-03, Vol. 2	SCE-04, Vol. 02	-	1,739	1,739	-	-	96	96	-	y	y	n	n	n
Other	PROJECT MANAGEMENT	Capital projects used for O&M Analysis	SCE-10, Vol. 2	SCE-04, Vol. 02	-	2,050	2,050	-	-	(17)	(17)	-	y	y	n	n	n
Other	SBU	Purchase of office furniture and equipment for SCE's Corporate Center	SCE-02, Vol. 4	SCE-05, Vol. 02	1,887	781	(1,106)	(1)	1,925	542	(1,382)	(1)	n	y	n	n	n
Other	SOLUTION DELIVERY	Capital projects used for O&M Analysis	SCE-03, Vol. 2	SCE-04, Vol. 02	7,854	1,316	(6,538)	(1)	8,011	1,141	(6,870)	(1)	y	y	n	n	n
Other	STRUCTURES & IMP	Structure Improvements	SCE-04, Vol. 3	SCE-03, Vol. 01	1,513	896	(617)	(0)	1,543	520	(1,024)	(1)	n	n	y	n	n
Other	System Planning Capital Projects	construction projects to accommodate customer load growth and grid reliability	SCE-03, Vol. 3	#N/A	-	-	-	-	-	(149)	(149)	-	n	n	y	n	n
Other	TSTOOLS	Garage tools and helicopter parts and equipment	SCE-08, Vol. 3, Part 2	SCE-07, Vol. 07	427	410	(17)	(0)	435	862	426	1	n	n	y	n	n
Other	TSTOOLS	Garage tools and helicopter parts and equipment	SCE-08, Vol. 3, Part 2	SCE-07, Vol. 07	213	883	669	3	218	980	762	4	n	n	y	n	n
Other	UT	Fiber-optic network Maintenance	SCE-03, Vol. 2	SCE-02, Vol. 07	2,878	5,209	2,330	1	2,936	4,671	1,735	1	n	n	y	n	n
Transmission	4 KV CUTOVERS	4kV Cutover Program	SCE-03, Vol. 4	SCE-02, Vol. 03	27,271	23,069	(4,201)	(0)	27,816	27,099	(717)	(0)	n	y	n	n	n
Transmission	4KV SUB REMOVAL	4kV Substation Removal Program	SCE-10, Vol. 2	SCE-02, Vol. 03	-	2,370	2,370	-	-	3,628	3,628	-	n	n	y	n	n
Transmission	A/F CUST FUNDED	Added facilities projects SCE constructs when a load side customer requests non-standard service. These projects may include portions that are customer cost responsibility and portions that are rate payer funded	SCE-03, Vol. 3	SCE-02, Vol. 03	9,875	10,739	864	0	10,072	3,881	(6,192)	(1)	n	y	n	n	n
Transmission	A/F CUST FUNDED	Added facilities projects SCE constructs when a load side customer requests non-standard service. These projects may include portions that are customer cost responsibility and portions that are rate payer funded	SCE-03, Vol. 3	#N/A	-	-	-	-	-	0	0	-	n	y	n	n	n

Category (Function)	2015 GRC Activity	Activity Description	2015 GRC Testimony Reference	2018 GRC Testimony Reference	2016 Authorized	2016 Recorded	2016 Variance (\$)	2016 Variance (%)	2017 Authorized	2017 Recorded	2017 Variance (\$)	2017 Variance (%)	Safety	Service Reliability	Maintenance	2016 Variance Explanation Required (y/n)	2017 Variance Explanation Required (y/n)
Transmission	A/F CUST FUNDED	Added facilities projects SCE constructs when a load side customer requests non-standard service. These projects may include portions that are customer cost responsibility and portions that are rate payer funded	SCE-10, Vol. 2	SCE-02, Vol. 03	-	0	0	-	-	-	-	-	n	y	n	n	n
Transmission	A/F CUST FUNDED	Added facilities projects SCE constructs when a load side customer requests non-standard service. These projects may include portions that are customer cost responsibility and portions that are rate payer funded	SCE-10, Vol. 2	#N/A	-	-	-	-	-	-	-	-	y	y	n	n	n
Transmission	A/F SCE FUNDED	Added facilities projects SCE constructs when a load side customer requests non-standard service. These projects may include portions that are customer cost responsibility and portions that are rate payer funded	SCE-03, Vol. 3	SCE-02, Vol. 03	11,821	9,268	(2,553)	(0)	12,057	8,021	(4,036)	(0)	n	y	n	n	n
Transmission	A/F SCE FUNDED	Added facilities projects SCE constructs when a load side customer requests non-standard service. These projects may include portions that are customer cost responsibility and portions that are rate payer funded	SCE-03, Vol. 3	#N/A	-	-	-	-	-	22	22	-	y	y	n	n	n
Transmission	A/F SCE FUNDED	Added facilities projects SCE constructs when a load side customer requests non-standard service. These projects may include portions that are customer cost responsibility and portions that are rate payer funded	SCE-10, Vol. 2	#N/A	-	-	-	-	-	-	-	-	y	y	n	n	n
Transmission	ADVANCED TECH	Advanced Technology Program	SCE-03, Vol. 2	SCE-02, Vol. 11	-	-	-	-	-	79	79	-	n	y	n	n	n
Transmission	BI 353 PIFs	Distribution Circuit Upgrades	SCE-03, Vol. 3	SCE-02, Vol. 03	54,058	46,383	(7,675)	(0)	55,139	49,369	(5,771)	(0)	y	y	n	n	n
Transmission	BPTI	Advanced Technology Program	SCE-03, Vol. 2	SCE-02, Vol. 03	0	230	230	676,112	0	81	81	233,232	n	y	n	n	n
Transmission	BPTI	Advanced Technology Program	SCE-03, Vol. 2	SCE-02, Vol. 06	-	0	0	-	-	-	-	-	n	y	n	n	n
Transmission	CATALINA DIESEL	Catalina Diesel Generation	SCE-02, Vol. 10	SCE-05, Vol. 05, Part 02	-	3,393	3,393	-	-	5,258	5,258	-	n	y	n	n	n
Transmission	CIRCUIT BREAKERS	Circuit Breaker Replacement	SCE-03, Vol. 4	SCE-02, Vol. 08	24,863	49,849	24,986	1	25,360	44,179	18,818	1	n	n	y	y	y
Transmission	CRITICAL INFRA SPARE	Substation Critical Spare Parts	SCE-03, Vol. 8	SCE-02, Vol. 06	816	3,779	2,963	4	832	10,206	9,374	11	n	y	n	n	n
Transmission	DSP CIRCUITS (353)	New Distribution Circuits	SCE-03, Vol. 3	SCE-02, Vol. 03	57,760	53,204	(4,556)	(0)	58,915	52,332	(6,583)	(0)	n	y	n	n	n
Transmission	DSP SUBSTATIONS	Distribution Substation Planning Projects	SCE-03, Vol. 3	EXCLUDED - BEYOND 2020	-	33	33	-	-	68	68	-	n	y	n	n	n
Transmission	DSP SUBSTATIONS	Distribution Substation Planning Projects	SCE-03, Vol. 3	SCE-02, Vol. 03	116,826	60,251	(56,575)	(0)	119,162	61,063	(58,099)	(0)	n	y	n	n	n
Transmission	DSP SUBSTATIONS	Distribution Substation Planning Projects	SCE-03, Vol. 3	#N/A	28,373	-	(28,373)	(1)	28,941	11,121	(17,820)	(1)	y	y	n	n	n
Transmission	DSP SUBSTATIONS	Distribution Substation Planning Projects	SCE-10, Vol. 2	SCE-02, Vol. 03	-	316	316	-	-	940	940	-	y	y	n	n	n
Transmission	DSP SUBSTATIONS	Distribution Substation Planning Projects	SCE-10, Vol. 2	#N/A	-	-	-	-	-	-	-	-	y	y	n	n	n
Transmission	ENERG MGMNT SYS REPL	Phasor Meaasurement Project	SCE-03, Vol. 2	SCE-02, Vol. 03	-	70	70	-	-	3,423	3,423	-	y	y	n	n	n
Transmission	ENERG MGMNT SYS REPL	Phasor Meaasurement Project	SCE-03, Vol. 2	SCE-02, Vol. 06	4,793	3,545	(1,248)	(0)	4,889	5,035	146	0	y	y	n	n	n
Transmission	EXCLUDED FROM GRC	Specific Projects Outside of GRC Window	SCE-03, Vol. 8	SCE-02, Vol. 07	-	6,042	6,042	-	-	1,358	1,358	-	y	y	n	n	n
Transmission	General Buildings	The spending needed to maintain the performance and lifecycle of our non-electric facility infrastructure and assets, including our buildings and offices located across our service territory	SCE-08, Vol. 3, Part 2	SCE-02, Vol. 07	-	517	517	-	-	817	817	-	y	y	n	n	n
Transmission	Grid Mod (excluded from GRC)	Substation Protection & Control Replacements	SCE-03, Vol. 8	SCE-02, Vol. 06	-	311	311	-	-	1,319	1,319	-	y	y	n	n	n
Transmission	Grid Mod (excluded from GRC)	Substation Protection & Control Replacements	SCE-03, Vol. 8	SCE-02, Vol. 10	-	8,333	8,333	-	-	19,773	19,773	-	n	n	y	n	n
Transmission	LADWP & PV	Shared Ownership Projects	SCE-03, Vol. 8	SCE-02, Vol. 06	-	9,444	9,444	-	-	22,251	22,251	-	n	y	n	n	y
Transmission	LADWP & PV meters, in CS	Shared Ownership Projects	SCE-03, Vol. 8	#N/A	44,672	-	(44,672)	(1)	45,565	-	(45,565)	(1)	y	y	n	n	n
Transmission	Misc Capital/equipment	Operational Facility Maintenance	SCE-04, Vol. 2	SCE-03, Vol. 01	-	-	-	-	-	19,581	19,581	-	y	y	n	n	n
Transmission	MISC EQUIP	Operational Facility Maintenance	SCE-03, Vol. 7	SCE-02, Vol. 03	-	2,044	2,044	-	-	2,343	2,343	-	y	y	n	n	n
Transmission	MISC EQUIP	Sylmar Converter Station & DC Line Maintenance	SCE-03, Vol. 8	SCE-02, Vol. 03	-	1,715	1,715	-	-	(5)	(5)	-	y	y	n	n	n
Transmission	MISC EQUIP	Sylmar Converter Station & DC Line Maintenance	SCE-03, Vol. 8	SCE-02, Vol. 06	22,390	61,412	39,022	2	22,838	66,385	43,547	2	n	y	n	y	y
Transmission	MISC EQUIP	Sylmar Converter Station & DC Line Maintenance	SCE-03, Vol. 8	SCE-02, Vol. 08	-	3,937	3,937	-	-	8,256	8,256	-	y	y	n	n	n
Transmission	MISC EQUIP	Sylmar Converter Station & DC Line Maintenance	SCE-03, Vol. 8	#N/A	3,493	-	(3,493)	(1)	3,563	-	(3,563)	(1)	y	y	n	n	n
Transmission	Operational Facilities	Operational Facility Maintenance	SCE-03, Vol. 7	SCE-02, Vol. 06	5,864	16,342	10,478	2	5,981	(113)	(6,094)	(1)	n	y	n	y	n
Transmission	PROJECTS (TLRR)	Transmission Spare Parts	SCE-03, Vol. 8	SCE-02, Vol. 07	29,146	58,231	29,085	1	29,729	117,438	87,709	3	n	n	y	y	y
Transmission	RELAYS/PROTECT/CTRLS	Substation Protection and Control System Replacements	SCE-03, Vol. 8	SCE-02, Vol. 06	12,431	20,512	8,081	1	12,680	21,459	8,779	1	n	n	y	n	n
Transmission	SPARE PARTS	Substation Spare Parts	SCE-03, Vol. 8	SCE-02, Vol. 06	2,695	13,496	10,801	4	2,749	5,654	2,905	1	y	y	n	y	n
Transmission	System Planning Capital Projects	construction projects to accommodate customer load growth and grid reliability	SCE-03, Vol. 3	SCE-02, Vol. 03	-	-	-	-	-	-	-	-	y	y	n	n	n
Transmission	Telecommunications	Telecommunications Equipment Maintenance	SCE-03, Vol. 3	SCE-02, Vol. 03	-	273	273	-	-	(21)	(21)	-	y	y	n	n	n
Transmission	Trans MTCE Planned	Transmission Line Planned Maintenance	SCE-03, Vol. 8	SCE-02, Vol. 07	6,347	27,888	21,541	3	6,474	32,677	26,203	4	n	y	n	y	y
Transmission	TRANS MTCE UNPL	Transmission Line Unplanned Replacements	SCE-03, Vol. 8	SCE-02, Vol. 07	4,739	63	(4,676)	(1)	4,834	495	(4,339)	(1)	n	n	y	n	n
Transmission	TRANS PROJ ECONOMIC	Transmission Expansion-Economic	SCE-03, Vol. 2	SCE-02, Vol. 11	-	-	-	-	-	(80)	(80)	-	n	n	y	n	n
Transmission	TRANS PROJ ECONOMIC	Transmission Expansion-Economic	SCE-03, Vol. 3	SCE-02, Vol. 03	-	(388)	(388)	-	-	(88)	(88)	-	n	n	y	n	n
Transmission	TRANS PROJ RELIAB	Transmission Expansion-Reliability	SCE-03, Vol. 3	EXCLUDED - BEYOND 2020	-	522	522	-	-	265	265	-	n	n	y	n	n
Transmission	TRANS PROJ RELIAB	Transmission Expansion-Reliability	SCE-03, Vol. 3	SCE-02, Vol. 03	28,548	86,673	58,125	2	29,119	155,927	126,808	4	n	y	n	y	y
Transmission	TRANS PROJ RELIAB	Transmission Expansion-Reliability	SCE-03, Vol. 3	#N/A	83	-	(83)	(1)	84	408	324	4	n	y	n	n	n
Transmission	TRANS PROJ RENEWABLE	Transmission Expansion-Renewable	SCE-03, Vol. 3	SCE-02, Vol. 03	177,240	69,849	(107,391)	(1)	180,785	30,417	(150,368)	(1)	n	y	n	n	n
Transmission	TRANS PROJ RENEWABLE	Transmission Expansion-Renewable	SCE-03, Vol. 3	#N/A	-	-	-	-	-	(0)	(0)	-	n	y	n	n	n
Transmission	TRANS SPARE PARTS	Transmission Line Spare Parts	SCE-03, Vol. 8	SCE-02, Vol. 03	-	146	146	-	-	1,503	1,503	-	n	n	y	n	n
Transmission	TRANS SPARE PARTS	Transmission Line Spare Parts	SCE-03, Vol. 8	SCE-02, Vol. 07	109	35	(74)	(1)	111	49	(62)	(1)	y	y	n	n	n
Transmission	TRANSFORMER BANKS	Substation Power Transformer Replacement	SCE-03, Vol. 4	SCE-02, Vol. 08	67,961	104,905	36,944	1	69,321	90,029	20,708	0	y	y	n	y	y
Transmission	TRANSMISSION - STORM	Transmission Line Storm	SCE-03, Vol. 7	SCE-02, Vol. 07	4,777	5,112	335	0	4,872	4,573	(299)	(0)	n	n	y	n	n
Transmission	TSP PROJECTS	Subtransmission Line Expansion Projects	EXCLUDED - BEYOND 2017	SCE-02, Vol. 03	913	639	(274)	(0)	931	1,796	864	1	n	y	n	n	n
Transmission	TSP PROJECTS	Subtransmission Line Expansion Projects	SCE-03, Vol. 3	EXCLUDED - BEYOND 2020	22,128	1,261	(20,867)	(1)	22,570	950	(21,620)	(1)	n	n	y	n	n
Transmission	TSP PROJECTS	Subtransmission Line Expansion Projects	SCE-03, Vol. 3	SCE-02, Vol. 03	138,149	58,466	(79,683)	(1)	140,912	70,554	(70,357)	(0)	n	y	n	n	n
Transmission	TSP PROJECTS	Subtransmission Line Expansion Projects	SCE-03, Vol. 3	#N/A	71,121	-	(71,121)	(1)	72,543	13	(72,530)	(1)	n	n	y	n	n

Category (Function)	2015 GRC Activity	Activity Description	2015 GRC Testimony Reference	2018 GRC Testimony Reference	2016 Authorized	2016 Recorded	2016 Variance (\$)	2016 Variance (%)	2017 Authorized	2017 Recorded	2017 Variance (\$)	2017 Variance (%)	Safety	Service Reliability	Maintenance	2016 Variance Explanation Required (y/n)	2017 Variance Explanation Required (y/n)
Transmission	TSP PROJECTS	Subtransmission Line Expansion Projects	SCE-10, Vol. 2	SCE-02, Vol. 03	-	16,577	16,577	-	-	14,844	14,844	-	n	y	n	n	n
Transmission	TSP PROJECTS	Subtransmission Line Expansion Projects	SCE-10, Vol. 2	#N/A	-	-	-	-	-	-	-	-	n	n	y	n	n
Transmission	WDAT/TO SCE FUNDED	Generation Interconnections-SCE Financed	SCE-03, Vol. 3	SCE-02, Vol. 03	10,200	100	(10,100)	(1)	10,404	317	(10,087)	(1)	n	y	n	n	n
Transmission	TSP PROJECTS	Subtransmission Line Expansion Projects	SCE-10, Vol. 2	#N/A	-	-	-	1	-	-	-	1	n	y	n	n	n

Appendix 3 to Attachment A

Programs from Appendix 1 Canceled or Deferred

List of projects that were canceled or deferred within each program
(Nominal \$000)

Program	Project Name	2015 GRC Operating Date	Safety/Reliability/Maintenance	Current Operating Date	Total Authorized
<u>GENERATION</u>					
Exhibit No.: SCE-02, Volume 7, Part 2 - Hydro Capital					
HYDRO EAST CORE BASE					
DAMS AND WTRWYS-HE	Rush Meadows Dam- Seismic Upgrade	12/1/2017	Yes	Beyond 2020	12,700
HYDRO NO CORE BASE					
MISC ELECTRICAL-HN	HL Dam 1 power & controls	6/1/2017	Yes	Beyond 2020	12,100
SPECIFIC NHD	Mammoth Pool - Replace HB Valve	12/1/2017	Yes	Beyond 2020	28,253
<u>TRANSMISSION</u>					
Exhibit No.: SCE-03, Vol. 03 - System Planning Capital Projects					
Load Growth Planning Projects (SCE-03, Vol. 03, Ch.I, Part F):					
Transmission Substation Plan (TSP) - A Bank Plan					
TSP PROJECTS	Valley AB 500/115 kV Substation	3/1/2016	Yes	6/16/2017	31,065
TSP PROJECTS	Chino 220/66 kV Substation	6/1/2016	Yes	12/1/2019	44,988
TSP PROJECTS	La Fresa A 220/66 kV Substation	12/31/2014	Yes	12/1/2019	47,530
TSP PROJECTS	Saugus 220/66 kV Substation	6/1/2017	Yes	3/30/2018	68,695
TSP PROJECTS	Vestal 220/66 kV Substation	6/1/2015	Yes	8/31/2017	18,593
TSP PROJECTS	Alberhill 500/115 kV Substation	6/1/2017	Yes	Beyond 2020	386,203
Transmission Substation Plan (TSP) - Subtransmission Lines Plan					
TSP PROJECTS	Santa Barbara County Reliability Project (SBCRP)	6/1/2016	Yes	12/1/2019	67,328
TSP PROJECTS	Moorpark-Newbury 66 kV	6/1/2016	Yes	7/31/2017	23,058
TSP PROJECTS	Valley-Ivyglen 115 kV (VIG)	12/31/2015	Yes	Beyond 2020	111,821
Transmission System Generation Interconnection					
TRANS PROJ RENEWABLE	Whirlwind #2AA and #3AA Bank Upgrades	12/1/2016	Yes	4/28/2017	88,150
TRANS PROJ RENEWABLE	Jasper 220 kV Substation	10/1/2015	Yes	Beyond 2020	57,005
<u>DISTRIBUTION</u>					
Exhibit No.: SCE-03, Vol. 03 - System Planning Capital Projects					
Distribution Substation Plan (DSP) - New Substations					
DSP SUBSTATIONS	Downs 115/12 kV Substation	6/1/2014	Yes	7/26/2016	32,256
DSP SUBSTATIONS	Falcon Ridge 66/12 kV Substation	12/31/2016	Yes	2/22/2019	83,554
DSP SUBSTATIONS	Safari 33/12 kV Substation	6/1/2016	Yes	12/1/2019	46,787
DSP SUBSTATIONS	Banducci 66/12 kV Substation	6/1/2016	Yes	12/1/2018	42,105
DSP SUBSTATIONS	Yokohl 66/12 kV Substation	6/1/2016	Yes	Cancelled	88,034
DSP SUBSTATIONS	Circle City 66/12 kV Substation	6/1/2016	Yes	Beyond 2020	25,198
Added Facilities Projects (SCE-03, Vol. 03, Ch.I, Part I):					
A/F CUST FUNDED	Natural 66/12 kV Substation	12/1/2015	Yes	6/23/2016	55,307
<u>OTHER</u>					
Exhibit No.: SCE-03, Vol. 02 - Engineering and Grid Technology					
Operational Process Engineering					
BPTI	Comprehensive Geographical Information System (CGIS) Phase 2	12/1/2014	Yes	12/17/2015	10,547
Exhibit No.: SCE-03, Vol. 02 - Engineering and Grid Technology					
SOLUTION DELIVERY					
PROJECT MANAGEMENT	Phasor Advanced Analytics	1/1/2016	Yes	Cancelled	13,100
Exhibit No.: SCE-05, Vol. 1 - Information Technology					
ENTERPRISE TECH					
ARCH ENGRG	Mobile Radio System Replacement	12/1/2015	Yes	1/1/2017	57,900
Exhibit No.: SCE-05, Vol. 2, Part 1 - Capitalized Software					
SOLUTION DELIVERY					
PROJECT MANAGEMENT	SAM - CSBU Customer Data Warehouse	12/1/2016	Yes	Cancelled	28,000
PROJECT MANAGEMENT	GIS Improvements	9/1/2017	Yes	12/1/2019	11,000