

PUBLIC UTILITIES COMMISSION

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October 31, 2025

Claire E. Torchia
Southern California Edison Company
2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
SENT VIA EMAIL: claire.torchia@sce.com

SUBJECT: The 2024 Southern California Edison Company Risk Spending Accountability Report Review

Dear Claire Torchia:

Southern California Edison Company (SCE) submitted their 2024 Risk Spending Accountability Report (RSAR) to the California Public Utilities Commission (CPUC) on April 30, 2025. Energy Division has completed its review of this report and provides SCE with recommendations for its future RSAR submittals. The attachments provide background information and details of Energy Division staff's analysis on SCE's spending accountability and spending variances.

OVERVIEW

The 2024 RSAR is the final report submitted under SCE's Test Year (TY) 2021 General Rate Case (GRC) (Application 19-08-013). Energy Division (ED) has reviewed the RSAR to determine compliance with the guidance set forth in CPUC's Safety Model Assessment Proceeding (S-MAP) Decisions (D.)19-04-020 and D.22-10-002. Within the RSAR, SCE presented imputed adopted costs, actual spending, and work units for its reportable GRC programs related to safety, reliability and maintenance.

Program Selection

SCE applied the selection criteria for its GRC programs according to D.19-04-020 and D.22-10-002. These decisions require explanations for programs that meet work unit or spending variance established thresholds.¹ SCE provided information on balancing and memorandum accounts, including the recorded year balances and associated cost-recovery mechanisms, to show how these accounts relate to authorized spending.

Variances

Overall, SCE's 2024 RSAR showed one percent underspend (\$37 million), as shown in Table 1. Across all RSAR related major business lines for capital and O&M expenses, capital distribution system programs had the largest total overspend (\$143 million) in 2024. However, after accounting for underspending in transmission capital programs, the net capital variance was a \$45.6 million underspend, or one percent, as shown in Table 1. The overspend in capital distribution was mainly driven by the Distribution Transformers and Distribution Preventive and

¹ The threshold that triggers an explanation varies between type of expense and units: Expense Variance > \$10 million or >\$5 million and 20 percent; Capital Variance > \$20 million or >\$10 million and 20 percent; or Unit Variance between adopted units and actual units > 20 percent where work unit data is available.

Breakdown Capital Maintenance programs.²

In 2024, of the 243 programs evaluated (across capital and O&M), 54 (22 percent) exceeded the spending variance threshold.³ Of the 54 programs exceeding the spending variance threshold, 22 (9 percent of the programs evaluated) had a negative variance (under spending).

Table 1. 2024 Recorded vs Actual by Major Line of Business

Category	2024 Recorded (\$000)	2024 Authorized (\$000)	Variance (\$000)	Variance (%)
O&M⁴				
Distribution	\$878,248	\$858,298	\$19,950	2%
Generation	\$202,285	\$187,991	\$14,294	8%
Other	\$580,990	\$591,233	(\$10,243)	-2%
Transmission	\$148,395	\$164,079	(\$15,684)	-10%
O&M Total	\$1,809,918	\$1,801,601	\$8,317	0%
Capital⁵				
Distribution	\$2,584,206	\$2,441,230	\$142,976	6%
Generation	\$151,927	\$95,713	\$56,214	59%
Other	\$868,190	\$751,376	\$116,815	16%
Transmission	\$734,881	\$1,096,444	(\$361,563)	-33%
Capital Total	\$4,339,205	\$4,384,763	(\$45,558)	-1%
Total	\$6,149,123	\$6,186,364	(\$37,241)	-1%

² Southern California Edison Company's Risk Spending Accountability Report for 2024, April 30, 2025, at 14

³ Spending variance threshold that triggers an explanation varies between type of expense and units: Expense Variance > \$10 million or >\$5 million and 20 percent; Capital Variance > \$20 million or >\$10 million and 20 percent

⁴ SCE's Response to Energy Division Data Request 001, June 2, 2025, Question 4

⁵ Southern California Edison Company's Risk Spending Accountability Report for 2024, April 30, 2025, Table III – 5

Over the full 2021–2024 GRC cycle, SCE reported six percent overspend (\$1.3 billion), as shown in Table 2. Capital distribution programs again had the largest overspend (\$1.6 billion). After offsetting transmission capital underspending, the net capital variance was a \$417.7 million overspend, or two percent as shown in Table 2. Most of this overspending from 2021 to 2023 was driven by SCE’s efforts to mitigate wildfire risk.⁶

Table 2. 2021 - 2024 Recorded vs Actual by Major Line of Business

Category	2021 - 2024 Recorded (\$000)	2021 - 2024 Authorized (\$000)	Variance (\$000)	Variance (%)
O&M⁷				
Distribution	\$3,270,195	\$2,345,968	\$924,227	39%
Generation	\$693,834	\$697,577	(\$3,743)	-1%
Other	\$2,140,138	\$2,136,569	\$3,569	0%
Transmission	\$517,339	\$524,061	(\$6,722)	-1%
O&M Total	\$6,621,505	\$5,704,174	\$917,331	16%
Capital⁸				
Distribution	\$10,653,497	\$9,096,554	\$1,556,943	17%
Generation	\$468,594	\$372,618	\$95,976	26%
Other	\$2,967,360	\$2,961,290	\$6,070	0%
Transmission	\$3,090,863	\$4,332,139	(\$1,241,276)	-29%
Capital Total	\$17,180,314	\$16,762,601	\$417,713	2%
Total	\$23,801,819	\$22,466,775	\$1,335,044	6%

⁶ Southern California Edison Company’s Risk Spending Accountability Report for 2024, April 30, 2025, at 13

⁷ SCE’s Response to Energy Division Data Request 001, June 2, 2025, Question 8

⁸ Southern California Edison Company’s Risk Spending Accountability Report for 2024, April 30, 2025, Table III – 6

Expanded, Emergent, and Deferred Program Presentation

SCE appropriately included canceled, deferred, or expanded programs. In the spreadsheet of data that SCE provided, the “Status” column details whether the program is “Proceeding as Planned”, “Deferred”, “Cancelled”, “Expanded”, and “Emergent”. SCE opted to use “Partially Delayed” in place of “Deferred” since many GRC activities are comprised of individual projects or sub-activities where only a fraction of the work may be delayed, deferred or cancelled. SCE stated that replacing “Deferred” with “Partially Delayed” better captured the status of the GRC activity.⁹

Across O&M, SCE had one partially delayed project in 2024 with total actual cost of \$3.5 million, eleven projects that were expanded or emergent at a total of \$742.5 million, and no cancelled projects.

Within Capital, SCE had seventeen partially delayed projects in 2024 with total actual costs of \$634.7 million, eighteen projects that were expanded or emergent with total actual costs of \$1.7 billion, and no cancelled projects.

Memorandum and Balancing Accounts

The Balancing and Memorandum accounts included only two balancing accounts for 2024: Mobilehome Park Master Meter Balancing Account (MMMBA) and Catastrophic Event Memorandum Account (CEMA).

Table 3. 2024 Memorandum and Balance Account Expenditures

Account	Activity	O&M Expense	Capital Expenditure
MMMBA	Mobile Home Park	\$0.214 million	\$59.746 million
CEMA	2024 CEMA Storm Events	\$72.6 million	\$89.5 million
TOTAL		\$72.814 million	\$149.246 million

Comments

D.19-04-020 provides an opportunity for parties to comment on the report. No party comments were received on the SCE 2024 RSAR.

⁹ Southern California Edison Company’s Risk Spending Accountability Report for 2024, April 30, 2025, at 24

RECOMMENDATIONS

1. Ensure Report Accuracy and Consistency

For next year's RSAR submission, ED recommends SCE improve the numerical accuracy of the data and narratives presented in the report component and ensure that the report aligns with the data in the spreadsheet component. In the official RSAR submission on April 30, some tables in the report component did not align with the data in the spreadsheet. SCE explained that this was due to both calculation and rounding errors.¹⁰ Some RAMP programs included non-RAMP spending as well, leading to incorrect reporting.¹¹ In response to ED staff data requests, SCE provided ED with updated data and tables with the correct numbers.

SCE should ensure the scale of all figures presented in the report component of the submission is consistent with other figures, as well as the magnitude of the dollar amounts in the spreadsheets and language of the report. For example, dollar amounts were sometimes reported as millions where they should have been reported as billions.¹²

ED recommends SCE ensure alignment between the report and the spreadsheets. For two programs that met the criteria for requiring a variance explanation, the explanation was only provided in the report and not the spreadsheet.

2. Include Required Details for All Programs, Including Work Unit Information or Explanation

SCE did not provide work units¹³ for every program nor did SCE explain when work units were unavailable, as required by D.19-04-020 and D.22-10-002. For example, unit information was provided only for the total RAMP spending line, while all RAMP subcategory lines were marked as "0" for unit type without any clarification on the actual work units. ED recommends SCE provide more details in accordance with the RSAR requirements outlined in these decisions.

"Utilities should report specific attributes such as authorized and actual spending for the record year and the difference in dollars and percent, as well as authorized and actual units of work for the record year and the difference in number of work units and in percent, *for all programs for which such information exists*. For future RSARs, please include this information for *all* programs, including those that fall under overarching programs."¹⁴

"When the program lacks authorized units: (i) the IOUs shall cite workpaper activity descriptions to explain how much work was accomplished and the degree to which the goals described in GRC testimony were met. If the authorized amount deviates from the GRC workpaper, IOUs shall provide a description of the change from the workpaper; and (ii) IOUs shall explain why programs lack work unit information for each program in the RSAR when units are not provided."¹⁵

3. Provide Spending Variance Explanations When Applicable

In response to an ED staff data request, SCE cites a 2020 ED response, interpreting that utilities only need to provide explanations for programs when work units are available.¹⁶ However, according

¹⁰ SCE's Response to Energy Division Data Request 001, June 2, 2025, Question 4, 5, 8; SCE's Response to ED's RSAR Data Request 002, dated June 16, 2025, Question 4

¹¹ SCE's Response to Energy Division Data Request 001, June 2, 2025, Question 9, SCE's Response to ED's RSAR Data Request 002, dated June 16, 2025, Question 5

¹² Southern California Edison Company's Risk Spending Accountability Report for 2024, April 30, 2025, Figure III-1 and Figure III-2

¹³ 27 O&M and 13 capital programs lack work unit information and do not provide an explanation for its absence.

¹⁴ D.19-04-020, Attachment 2, Section V.

¹⁵ D.22-10-002, Appendix A, Requirement 11.

¹⁶ SCE's Response to ED's RSAR Data Request 001, dated June 2, 2025, Question 7

to the D.19-04-020, the condition of “work unit data available” applies to assessing whether a program meets the 20 percent work unit variance threshold. Without work unit data, it is impossible to calculate such a variance. The decisions do **not** exempt utilities from providing explanations when the programs exceed the spending variance threshold. As stated in the decision,

“We also find that it is reasonable for the IOUs to provide narrative explanations of activities for those risk mitigation programs for which work unit data is available and where the deviation between authorized work units and performed work units is equal to or greater than 20 percent.... In addition, the IOUs should provide an explanation for those programs where the spending difference meets a set of criteria.”¹⁷

In future RSARs, in order to maintain compliance with D.19-04-020 reporting requirements, SCE should provide variance explanations:

- Whenever the deviation between authorized work units and actual work units performed exceeds 20 percent.
- Whenever the deviation between actual spending for GRC programs and authorized spending for those GRC programs reaches the selection criteria (variance threshold)¹⁸ set in D.19-04-020 regardless of work unit data availability.

4. Provide Detailed Spending Variance Explanations in Accordance with D.22-10-002

ED recommends SCE to include detailed spending variance explanations as required by D.22-10-002, including:

- Reasons for positive variances due to new in-scope activities or new program mandates, citing any relevant regulations or orders.¹⁹
- If citing another program or activity, provide its name, associated costs (or explain if unavailable), authorized and actual spending, dollar difference, and work units.²⁰
- If variance is due to a forecast error, list the assumptions used and identify which caused the error.²¹

For example, within the Distribution Preventive and Breakdown Capital Maintenance program of Capital, SCE explains that two activities were not included in the GRC forecast but does not explain what caused the new activity or provide the associated spending and work unit information. Similarly, for 4 kV Cutovers, Distribution Plant Betterment, and Worst Circuit Rehabilitation under Capital, SCE did not list or identify the assumptions used in the forecasts.

5. Report Non-Safety, Reliability, and Maintenance (SRM) Program and Balancing Account Spending Using Appendix B Format

As directed in D.22-10-002, as part of the annual RSAR, “...each IOU must report total expenditures for all non-SRM GRC programs, memorandum accounts, and balancing accounts at the program level, or major line of business level if that major line of business does not include SRM spending. Non-SRM spending should be reported in a standardized format based on the table format included in Appendix B and be clearly identified as non-SRM spending. The IOU must describe the level of detail the IOU has provided regarding non-SRM program spending, break

¹⁷ D.19-04-020 at 42

¹⁸ Variance threshold that triggers and explanation varies between type of expense and units: Expense Variance > \$10 million or >\$5 million and 20 percent; Capital Variance > \$20 million or >\$10 million and 20 percent; or Unit Variance between adopted units and actual units > 20 percent. See D.19-04-020, Attachment 2 at 7-8 for more detail.

¹⁹ D.22-10-002, Appendix A, Requirement 16 and 17

²⁰ D.22-10-002, Appendix A, Requirement 14

²¹ D.22-10-002, Appendix A, Requirement 13

down non-SRM spending by capital expenditure and O&M, and discuss how it has treated interest, overhead, and taxes in its submission. The IOUs must calculate variance between authorized and actual amounts for each non-SRM item but are not required to provide a variance explanation.”²²

This requirement will be in effect starting with GRC TY 2025. As a reminder, in the next annual RSAR, SCE must report non-SRM program spending and balancing account information using Appendix B.

6. Embedded Link Access

Lastly, for future RSAR submissions, please ensure all links embedded into the spreadsheets are accessible. For example, the links to the GRC workpapers in SCE’s 2024 RSAR spreadsheets were inaccessible, though SCE later updated them in response to subsequent data requests.²³

If you have any questions or comments, please contact Yueting Sun at yueting.sun@cpuc.ca.gov or Sejal Jinturkar at sejal.jinturkar@cpuc.ca.gov.

Sincerely,



Leuwam Tesfai

Deputy Executive Director for Energy and Climate Policy/ Director Energy Division

Enclosure: ATTACHMENT A – Staff Analysis of Selected Programs

ATTACHMENT B – SCE RSAR Programs Ranked by Spending Variance

cc: Daniel Komula, Southern California Edison
Nayiri Pilikyan, Southern California Edison
Michael Conklin, Supervisor, Utility Costs and Compliance Section
Service Lists for A.19-08-013, A.22-05-013, A.23-05-010

²² D.22-10-002, Appendix A, Requirement 25

²³ SCE’s Response to Energy Division Data Request 001, June 6, 2025, Question 6; SCE’s Response to Energy Division Data Request 002, June 16, 2025, Question 4

ATTACHMENT A: STAFF ANALYSIS OF SELECTED PROGRAMS OF 2024 SCE RSAR

CPUC Energy Division Staff sent SCE data requests on programs when variance explanations appeared inadequate. The results of these inquiries may be found in the sections below. Many of the over- and under-expenditures discussed in this attachment reflect a combination of factors, including reliance on historical GRC forecasts rather than anticipated 2024 needs, increased workload, emergent or non-forecasted projects, inflation and escalation in labor and materials, and adjustments for critical reliability or safety issues. Energy Division Staff recommends that, consistent with the RSAR requirements under the D.19-04-020 and D.22-10-002, SCE provide program-level spending details, work units, and explanations of variances relative to authorized budgets in future RSAR filings.

Capital Distribution

Distribution Preventive and Breakdown Capital Maintenance

In 2024, SCE spending for this program was \$469 million compared to an imputed adopted cost of \$297.5 million, an **over-expenditure** of approximately 58 percent (\$171.5 million).

The capital maintenance activity captures the labor, equipment, and other material costs to remove and replace failed distribution equipment.

According to SCE, the over-expenditure in this category is due to two main reasons. First, SCE's 2024 authorized value was not based on its anticipated 2024 spend or needs but instead derived from TY 2021 GRC authorization for calendar year 2021 with escalation per D.23-11-096. For activities forecasted in the 2021 GRC for 2024, SCE experienced higher-than-anticipated escalation/inflation starting in 2020 and continuing through today. Second, SCE performed two major activities not included in the 2021 GRC forecast and thus not in the 2024 authorized amount: Pole Related Maintenance Splice (PRMS) and Live Front Equipment Replacement.

First, SCE is correct that the authorized 2024 spending was based on a settlement agreement and not on its anticipated 2024 needs. However, ED staff notes that SCE was a party to the Settlement Agreement. Second, ED staff agrees that PRMS and Live Front Equipment Replacement were not included in SCE's original 2021 GRC application. However, to improve transparency and maintain compliance with D.22-10-002, when citing new or non-forecasted activities as reasons for spending variances, SCE must identify the activity by name as it appears in the RSAR, disclose actual costs or explain why they are unavailable, and report authorized and actual spending, the dollar variance, and work units, regardless of RSAR thresholds.²⁴ The initial RSAR did not include the spending and work unit information for PRMS or Live Front, which was later provided in response to ED's data request. Going forward, SCE should include these details in RSAR to ensure full transparency and compliance.

4 kV Cutovers

Spending for this program was \$47.8 million compared to an imputed adopted cost of \$10.4 million, an **over-expenditure** of approximately 360 percent (\$37.4 million).

The 4 kV Cutover Program is the conversion, or cutover, of all circuits fed from the selected substation from the lower voltage class to a higher voltage class. The 4 kV Cutover Program is a part of the larger 4 kV Substation Elimination Program, which has the purpose of addressing equipment

²⁴ D.22-10-002, Appendix A, Requirement 14

obsolescence, safety, and reliability.

SCE cites both increased work execution and inflation-related cost escalation as primary reasons for the over-expenditure in the 4 kV Cutover Program. This program experienced significant cost overruns and rollovers driven by critical infrastructure replacement needs, including \$15 million in costs from the Modoc Substation and \$11.8 million from Hoyt substation, which alone added four additional projects. In sum, the variance is attributed to the increased scope of work, completing more 4 kV cutover projects than were authorized for 2024 and the full GRC cycle (2021–2024), and the necessity of timely solutions for critical replacements.

SCE's explanation of increased work execution aligns with the 275 percent unit variance in this program (159 authorized vs. 597 actual work units). However, SCE should improve forecasting by conducting more frequent reviews of infrastructure needs and potential project rollovers to better anticipate scope changes.

Distribution Plant Betterment

Spending for this program was \$30 million compared to an imputed adopted cost of \$4 million, an **over-expenditure** of approximately 664 percent (\$26 million).

Distribution Plant Betterment covers system improvements and projects addressing local needs not included in the Distribution Circuit Upgrades (DCU) Program. This activity includes projects to address changes in load profiles that drive local low voltage, new protection devices and switches needed for safety and reliability, new developments that require a single-phase circuit voltage where none exists, street or freeway improvements that impact SCE's electric infrastructure, and more.

SCE attributes the overspending to increased workload and projects not included in the GRC forecast. The 2024 authorized budget was based on the TY 2021 GRC authorization, escalated per D.23-11-096, using historical averages rather than SCE's anticipated 2024 needs. For the 2024 RSAR, variance explanations compare recorded spending to imputed authorized values derived from the TY 2021 GRC for 2021, escalated 1.5% above 2023 authorized values. In line with 2021 - 2023, SCE experienced a higher volume of work and spend in 2024 due to more distribution projects than the historical averages. For example, regional grid team work exceeded the TY 2021 GRC forecast. Additionally, SCE spent \$4.8 million on a remote grid project and pilot projects that were also not part of the TY 2021 GRC forecast. The remote grid pilots, identified in 2021 after traditional upgrade paths were blocked by environmental and wildfire risks, focus on voltage issues and new protection devices and switches.

However, it is unclear how much of the overspending is directly attributable to increased workload in regional grid team work versus emergent remote grid projects. SCE should clarify the magnitude of the workload increases or break down spending by the specific projects or activities in future RSARs to better substantiate its variance explanations. In addition, SCE should consider whether improvements to its forecasting methodology, such as including known pilot efforts or adjustments for recent spending trends, could help better align authorized budgets with actual needs.

Worst Circuit Rehabilitation (WCR)

Spending for this program was \$30.8 million compared to an imputed adopted cost of \$7.2 million, an **over-expenditure** of approximately 326 percent (\$23.6 million).

The Worst Circuit Rehabilitation (WCR) program has two primary objectives: (1) mitigate the safety and reliability risks associated with mainline cable failures; and (2) improve the reliability performance of Worst Performing Circuits (WPCs) within the SCE system.

According to SCE, beginning in 2018, it temporarily curtailed underground cable replacement to reallocate resources towards emergent wildfire risk mitigation activities. As wildfire activities

stabilized, SCE resumed infrastructure replacement, ramping up towards historical norms in 2023. SCE stated that in 2024 it accelerated the replacement of aging and degraded underground cables and components to mitigate public safety and reliability risks and it experienced higher unit costs than originally estimated in the TY 2021 GRC. The imputed 2024 authorized units were 15 conductor miles, while SCE completed 47.6 miles. The authorized unit cost was approximately \$475K per mile; the recorded 2024 cost was approximately \$647K per mile.

To enhance transparency in future RSARs, SCE should include a breakdown of cost drivers, such as labor, materials, or project complexity.

Automatic Reclosers Replacement Program

Spending for this program was \$0.1 million compared to an imputed adopted cost of \$2.7 million, an **under-expenditure** of approximately 95 percent (\$2.6 million).

Automatic Reclosers Replacement Program includes replacing automatic reclosers (ARs), devices installed on distribution circuits that interrupt the supply of electricity to the portion of the circuit downstream of their location. ARs act similar to circuit breakers but are installed outside substations.

According to SCE, the under-expenditure is mainly because all known oil-filled ARs were replaced by 2023. The program then shifted focus to Vacuum Fault Interrupters (VFIs) and other outdated equipment. Many older VFIs are obsolete, unrepairable, or no longer manufactured, which risks failures if not replaced. Replacement equipment for VFIs is not expected until 2026, so replacements will resume then.

Although SCE clarifies that materials are not unavailable until 2026, it plans to ramp up the program starting that year. SCE should explain why the ramp-up is delayed until 2026, what work will occur before then, and anticipate if there will be overspends in 2026.

The VFIs were not included in the TY 2021 forecast because SCE expected more oil-filled AR replacements at that time. SCE commits to continually improving forecasting accuracy and data quality. In its 2025 GRC, SCE noted the reduced forecast for oil-filled ARs and the shift to VFIs.

SCE notes that authorized funds are generally not traceable between programs, so it is unclear how much funding was shifted to VFIs. SCE should track such funding shifts to improve transparency in future RSAR reports.

O&M Distribution

Enhanced Overhead Inspections and Remediations

Spending for this program was \$128 million compared to an imputed adopted cost of \$115 million, an **overspend** of approximately 11 percent (\$12 million).

This activity includes the costs associated with performing Enhanced Overhead Inspections and remediation of findings across SCE's High Fire Risk Area. This includes Transmission Enhanced Overhead Inspections (EOI) inspections, Distribution EOI Inspections, aerial inspections, Transmission and Distribution EOI repairs, the long span mitigation, vertical switches and EOI PMO costs.

The overspend in this category is largely due to the increased volume of distribution remediations. SCE notes that the 2024 forecast for distribution remediations was based on the 2021 recorded volumes, as SCE anticipated the volume of work in 2024 would be similar to that in 2021, based on known information at the time of filing its Track 4 application in May 2022. SCE states the increase in remediations is also due to an increase in the find rate. Additionally, some inspections from late 2023 required remediation work that was not completed until 2024.

As there are multiple activities in this program, SCE stated that a single unit could not be identified. To comply with D.22-10-002, ED recommends SCE should still explain how much work was accomplished and the degree to which the goals described in the GRC were met, compared to this cycle's GRC forecast for any emergent overhead inspection/remediation work.²⁵

As SCE anticipates an increased number of inspections over the upcoming years, SCE should adjust its forecasts accordingly in the next GRC application. Forecasts should also account for work pushed into the following year due to late-year inspections.

Substation O&M Breakdown Maintenance

Spending for this program was \$8 million compared to an imputed adopted cost of \$3 million, an **overspend** of approximately 178 percent (\$5 million).

The Substation O&M Breakdown Maintenance includes the costs to perform unplanned breakdown maintenance, including the repair and replacement of SCE equipment and structures that are damaged or fail in service. Breakdown maintenance is typically performed in response to damage caused by equipment failures, degradation, rodents, birds, or other means. Unplanned maintenance does not include costs related to failures that occur during a storm or from a claim.

SCE explains that costs for a five-year period until 2024 were forecasted in 2019, when SCE filed its TY 2021 GRC Application. Because recorded costs from inspection and maintenance cycles fluctuated, SCE did not use units for forecasting and instead relied on a five-year historical average to account for annual variations. The overspending in 2024 is due to a greater amount of maintenance that was needed to repair transformer leaks.

Given the lack of work unit data, and to comply with D.22-10-002, ED recommends SCE should explain how much work was accomplished and the degree to which the goals described in the GRC were met, compared to the forecast for substation O&M breakdown maintenance.²⁶ SCE states that this is an ongoing program that will remain during the GRC cycle. ED recommends providing a more detailed summary of the how the work changed throughout the previous GRC cycle.²⁷

SCE explains that it is increasing its monitoring and maintenance of equipment which is driving rigorous

²⁵ D.22-10-002, Appendix A, Requirement 11

²⁶ D.22-10-002, Appendix A, Requirement 11

²⁷ D.22-10-002, Appendix A, Requirement 23

remediation of active oil leaks in transformers. Given these efforts, SCE should anticipate increased transformer repairs and update forecasts for future years to allow for direct comparison of categories.

Distribution Preventive and Breakdown O&M Maintenance

Spending for this program was \$116 million compared to an imputed adopted cost of \$130 million, an **underspend** of approximately 11 percent (\$14 million).

Distribution maintenance is performed on either a planned basis or an unplanned basis. Planned maintenance work is comprised of repairs to SCE's equipment and structures recorded as Priority 2 items, primarily driven by inspection activities. These repairs can be performed by inspectors or qualified electrical workers. Planned work is referred to as preventive maintenance. To forecast this activity in the TY 2021 GRC application, SCE used historical averages since costs change yearly depending on how many repairs are characterized as preventive maintenance versus breakdown maintenance. SCE states that each repair has varying levels of complexity which change costs yearly. SCE did not forecast calendar year 2024 in its TY 2021 GRC because the previous Rate Case Plan covered only three years (2021-2023), and Track 4 of SCE's 2021 GRC authorized values, which incorporated S&P Global forecasts for O&M, were added later. As a result, there were no numerical forecasts presented in Track 4.

While SCE underspent compared to authorized amounts in 2024, the cumulative spending from 2021 to 2024 shows only a 3.1% variance from authorized values. To account for annual fluctuations in preventive and breakdown maintenance requirements and repair complexity, SCE relied on historical averages in its TY 2021 GRC and continued this approach, along with recorded costs, in its TY 2025 GRC application.

Distribution Intrusive Pole Inspections

Spending for this program was \$1.6 million compared to an imputed adopted cost of \$6.4 million, an **underspend** of approximately 75 percent (\$4.8 million).

This program details the costs incurred for intrusive pole inspections of distribution poles. Intrusive inspections require inspectors with proper training and experience to drill into the pole's exterior to identify and measure the extent of internal decay which is typically undetectable with external observation alone. Inspectors also do a visual inspection of the exterior of the pole to check for damage.

SCE states that the underspend in this category was driven by the need to address emergent work. There is no activity of shifting funds between programs, and SCE instead uses management discretion to respond to emergent needs that may differ from the programs authorized on a forecast basis in a GRC. SCE adheres to remaining compliant with the inspection frequencies per General Order (G.O.) 165 and G.O. 95.

ED recommends that SCE provide more detailed reporting on distribution intrusive pole inspections. Specifically, SCE should quantify how much of the 2024 underspending was due to emergent activities versus routine inspections and provide program or activity-level expenditure details to enhance transparency.

O&M Other

Safety Activities – Transmission & Distribution

Spending for this program was \$16 million compared to an imputed adopted cost of \$21 million, an **underspend** of approximately 25 percent (\$5 million).

SCE explains that this program involves the cost of labor, materials used, and expenses incurred to

develop and deliver safety programs to distribution and transmission personnel. It also includes the seat-time (labor costs) for employees to attend safety events, trainings, and non-labor costs related to event attendance such as transportation expenses, meals, travel, lodging, and incidental expenses, as well as division overhead.

SCE states that the underspend was due to the forecast from the TY 2021 GRC Application, developed in 2019, pre-COVID. This forecast did not take into account the changes in a COVID-19 environment. SCE states that its Functional Movement System (FMS) Program was completed in 2018, which also led to the underspend in this program. The FMS Program was a therapeutic exercise program that aimed at reducing the frequency and severity of minor injuries to SCE field employees. In early 2019, SCE was still using the FMS Program and had forecasted \$2.2 million per year throughout the GRC cycle. However, in 2019, participation in the program decreased and the program was discontinued after the pandemic, leading to approximately \$2.2 million of the total underspend in 2024. Additionally, the transition to increased remote work after the pandemic reduced expenses for SCE.

For similar phase-out programs in the future, SCE should improve forecasting by documenting assumptions about potential changes in participation or activity levels, estimating resulting savings or underspending, and updating forecasts when program changes are known to provide more accurate comparisons to authorized values.

ATTACHMENT B: SCE RSAR PROGRAMS
RANKED BY SPENDING VARIANCE (\$)

Type	Business Line	GRC Activity	RAMP Control / Mitigation Name	Recorded Costs (\$000) - A	Authorized Costs (\$000) - B	Variance (\$000) (A - B)	% Variance - (A - B)/B	Recorded Units - C	Authorized Units - D	Variance (Units) - (C - D)	% Threshold Variance (Units) - (C - D)/D	\$ Threshold Variance Explanation	% \$ Variance Explanation	Unit Variance Explanation
Capital	Distribution	Distribution Preventive and Breakdown Capital Maintenance	N/A	\$468,907	\$297,457	\$171,450	58%	-	-	-		Yes	Yes	No
Capital	Distribution	Distribution Transformers	N/A	\$208,066	\$103,343	\$104,723	101%	20754	21,654	-900	-4%	Yes	Yes	No
Capital	Other	Technology Solutions	Non-RAMP	\$185,066	\$98,235	\$86,831	88%	-	-	-		Yes	Yes	No
Capital	Other	Technology Solutions	Total	\$185,066	\$101,856	\$83,210	82%	-	-	-		Yes	Yes	No
Capital	Distribution	Enhanced Overhead Inspections and Remediations	N/A	\$164,987	\$116,658	\$48,329	41%	-	-	-		Yes	Yes	No
Capital	Distribution	4 kV Cutovers	N/A	\$47,737	\$10,375	\$37,362	360%	597	159	438	275%	Yes	Yes	Yes
Capital	Distribution	Underground Structure Replacements	Total	\$50,706	\$14,095	\$36,611	260%	441	383	58	15%	Yes	Yes	No
Capital	Distribution	Underground Structure Replacements	Non-RAMP	\$39,940	\$5,344	\$34,596	647%	78	25	53	212%	Yes	Yes	Yes
Capital	Transmission	Circuit Breaker Replacement	N/A	\$73,158	\$44,022	\$29,136	66%	224	205	19	9%	Yes	Yes	No
Capital	Distribution	Distribution Plant Betterment	N/A	\$30,013	\$3,929	\$26,084	664%	-	-	-		Yes	Yes	No
Capital	Distribution	Worst Circuit Rehabilitation (WCR)	Worst Circuit Rehabilitation (WCR)	\$30,808	\$7,234	\$23,574	326%	47.6	15	33	217%	Yes	Yes	Yes
Capital	Transmission	Relays, Protection and Control Replacements	N/A	\$94,805	\$76,300	\$18,506	24%	-	-	-		No	Yes	No
Capital	Distribution	Distribution Claim	N/A	\$63,340	\$45,207	\$18,133	40%	-	-	-		No	Yes	No
Capital	Generation	Hydro - Dams and Waterways	Total	\$30,354	\$12,776	\$17,579	138%	-	-	-		No	Yes	No
Capital	Other	Technology Infrastructure Maintenance and Replacement	N/A	\$95,688	\$79,311	\$16,377	21%	-	-	-		No	Yes	No
Capital	Other	Substation Switchrack Rebuild	N/A	\$97,702	\$81,725	\$15,977	20%	4	3	1	33%	No	No	Yes
Capital	Generation	Hydro - Dams and Waterways	Non-RAMP	\$19,738	\$6,026	\$13,712	228%	-	-	-		No	Yes	No
Capital	Distribution	Distribution Storm Response Capital	N/A	\$56,202	\$43,554	\$12,648	29%	-	-	-		No	Yes	No
Capital	Generation	Hydro - Decommissioning	N/A	\$12,714	\$424	\$12,290	2898%	-	-	-		No	Yes	No
Capital	Other	Cybersecurity Delivery and IT Compliance	Interior Protection	\$20,478	\$8,427	\$12,052	143%	-	-	-		No	Yes	No
Capital	Transmission	Substation Capital Breakdown Maintenance	N/A	\$25,139	\$13,353	\$11,786	88%	-	-	-		No	Yes	No
Capital	Other	All Hazards Assessment, Mitigation and Analytics	Seismic Building Safety Program	\$16,684	\$5,450	\$11,234	206%	-	-	-		No	Yes	No
Capital	Transmission	Protection of Major Business Functions	Non-Electric Facilities/Protection of Major Business Functions	\$25,181	\$13,952	\$11,229	80%	-	-	-		No	Yes	No
Capital	Transmission	Protection of Grid Infrastructure Assets	Infrastructure Protection - Enhanced	\$39,583	\$28,805	\$10,778	37%	-	-	-		No	Yes	No
Capital	Distribution	Undergrounding	N/A	\$56,753	\$45,996	\$10,757	23%	12	21	-9	-43%	No	Yes	Yes
Capital	Generation	Solar	N/A	\$10,828	\$104	\$10,724	10318%	-	-	-		No	Yes	No
Capital	Transmission	Monitoring Bulk Power System	N/A	\$84,870	\$75,479	\$9,390	12%	-	-	-		No	No	No
Capital	Distribution	Distribution Substation Plan (DSP) Circuits	N/A	\$65,490	\$56,263	\$9,227	16%	-	-	-		No	No	No
Capital	Generation	Mountainview	N/A	\$15,717	\$6,694	\$9,023	135%	-	-	-		No	No	No
Capital	Other	Software Maintenance and Replacement	N/A	\$71,191	\$62,942	\$8,250	13%	-	-	-		No	No	No
Capital	Distribution	Preventive Maintenance	N/A	\$56,150	\$49,323	\$6,827	14%	-	-	-		No	No	No
Capital	Generation	Hydro - Electrical Equipment	N/A	\$9,350	\$3,586	\$5,764	161%	-	-	-		No	No	No
Capital	Other	Air Operations	N/A	\$6,529	\$810	\$5,719	706%	-	-	-		No	No	No
Capital	Generation	Hydro - Dams and Waterways	Low Level Outlet Improvements	\$5,366	\$ -	\$5,366		-	-	-		No	No	No
Capital	Transmission	Transmission Claim	N/A	\$8,811	\$3,892	\$4,918	126%	-	-	-		No	No	No
Capital	Other	CRE Project Management	Non-RAMP	\$87,640	\$82,786	\$4,853	6%	-	-	-		No	No	No
Capital	Other	Cybersecurity Delivery and IT Compliance	Data Protection	\$13,748	\$8,908	\$4,840	54%	-	-	-		No	No	No
Capital	Other	CRE Project Management	Total	\$89,959	\$85,336	\$4,622	5%	-	-	-		No	No	No
Capital	Distribution	Cable-in-Conduit (CIC) Replacement Program	Cable Replacement Programs (CIC)	\$10,826	\$6,225	\$4,601	74%	15	18	-3	-15%	No	No	No
Capital	Generation	Hydro - Structures and Grounds	N/A	\$7,554	\$3,251	\$4,303	132%	-	-	-		No	No	No
Capital	Distribution	PSPS Execution	PSPS Protocol and Support Functions	\$9,271	\$5,530	\$3,740	68%	-	-	-		No	No	No
Capital	Generation	Palo Verde	N/A	\$41,149	\$37,770	\$3,379	9%	-	-	-		No	No	No
Capital	Other	Climate Adaptation and Severe Weather	N/A	\$4,644	\$1,414	\$3,230	229%	-	-	-		No	No	No

Type	Business Line	GRC Activity	RAMP Control / Mitigation Name	Recorded Costs (\$000) - A	Authorized Costs (\$000) - B	Variance (\$000) (A - B)	% Variance - (A - B)/B	Recorded Units - C	Authorized Units - D	Variance (Units) - (C - D)	% Threshold Variance (Units) - (C - D)/D	\$ Threshold Variance Explanation	% \$ Variance Explanation	Unit Variance Explanation
Capital	Distribution	Underground Switch Replacements	UG Oil Switch Replacement Program	\$5,812	\$2,746	\$3,067	112%	62	24	38	158%	No	No	Yes
Capital	Distribution	Distribution Tools and Work Equipment	N/A	\$6,093	\$3,565	\$2,528	71%	-	-	-		No	No	No
Capital	Other	All Hazards Assessment, Mitigation and Analytics	Total	\$37,614	\$35,156	\$2,459	7%	-	-	-		No	No	No
Capital	Other	Laboratory Operations	N/A	\$4,329	\$2,260	\$2,069	92%	-	-	-		No	No	No
Capital	Distribution	Underground Structure Replacements	Cover Pressure Relief and Restraint (CPRR) Program	\$10,766	\$8,751	\$2,015	23%	363	347	16	5%	No	No	No
Capital	Generation	Hydro - Dams and Waterways	Spillway Remediation and Improvement	\$4,435	\$2,537	\$1,897	75%	-	-	-		No	No	No
Capital	Distribution	Distribution Wood Pole Disposal	N/A	\$6,481	\$4,860	\$1,622	33%	-	-	-		No	No	No
Capital	Distribution	HFRA Sectionalizing Devices	Remote-Controlled Automatic Reclosers and Fast Curve Settings	\$1,621	\$ -	\$1,621		11	-	11		No	No	No
Capital	Generation	Peakers	N/A	\$1,180	\$ -	\$1,180		-	-	-		No	No	No
Capital	Transmission	Telecommunication Inspection and Maintenance	N/A	\$4,270	\$3,415	\$855	25%	-	-	-		No	No	No
Capital	Generation	Hydro - Dams and Waterways	Dam Surface Protection	\$759	\$ -	\$759		-	-	-		No	No	No
Capital	Generation	Hydro - Relicensing	N/A	\$16,224	\$15,539	\$685	4%	-	-	-		No	No	No
Capital	Other	Facility Asset Management	Electrical Inspections	\$1,629	\$1,015	\$614	61%	-	-	-		No	No	No
Capital	Distribution	DER-Driven Grid Reinforcement	N/A	\$2,040	\$1,546	\$494	32%	-	-	-		No	No	No
Capital	Other	Cybersecurity Delivery and IT Compliance	Total	\$65,175	\$64,736	\$439	1%	-	-	-		No	No	No
Capital	Transmission	Transmission Deteriorated Pole Replacement	N/A	\$100,006	\$99,748	\$258	0%	2,008	3,570	-1,562	-44%	No	No	Yes
Capital	Distribution	Engineering and Planning Software Tools	N/A	\$28,485	\$28,284	\$201	1%	-	-	-		No	No	No
Capital	Distribution	PCB Transformer Removal	N/A	\$2,167	\$2,020	\$148	7%	104	250	-146	-58%	No	No	Yes
Capital	Other	Enhanced Situational Awareness	Situational Awareness	\$2,171	\$2,023	\$147	7%	-	-	-		No	No	No
Capital	Other	Cybersecurity Delivery and IT Compliance	SCADA Cybersecurity	\$2,744	\$2,652	\$91	3%	-	-	-		No	No	No
Capital	Transmission	Telecommunication Deteriorated Pole Replacement	N/A	\$320	\$234	\$87	37%	-	-	-		No	No	No
Capital	Other	Fleet Operations and Maintenance	N/A	\$575	\$520	\$56	11%	-	-	-		No	No	No
Capital	Generation	Hydro - Dams and Waterways	Seismic Retrofit	\$49	\$ -	\$49		-	-	-		No	No	No
Capital	Other	Environmental Programs	N/A	\$1,784	\$1,747	\$37	2%	-	-	-		No	No	No
Capital	Distribution	Distribution Fault Anticipation	N/A	\$25	\$ -	\$25		0	-	-		No	No	No
Capital	Distribution	Cable Life Extension (CLE) Program	Cable Replacement Programs (CIC)	\$6	\$0	\$6	550586%	-	-	-		No	No	No
Capital	Other	Asset Reliability Risk Analytics	N/A	\$ -	\$ -	\$0		-	-	-		No	No	No
Capital	Distribution	Fusing Mitigation	Fusing Mitigation	\$0	\$ -	\$0		-	-	-		No	No	No
Capital	Other	PSPS Customer Support	PSPS Protocol and Support Functions	\$ -				-	-	-		No	No	No
Capital	Distribution	Prefabrication	N/A	\$23,261	\$23,279	(\$19)	0%	-	-	-		No	No	No
Capital	Distribution	Meter System Maintenance Design	N/A	\$808	\$935	(\$128)	-14%	-	-	-		No	No	No
Capital	Other	Oil Containment Diversion System	N/A	\$253	\$410	(\$156)	-38%	-	-	-		No	No	No
Capital	Transmission	Transmission Emergency Equipment	N/A	\$ -	\$168	(\$168)	-100%	-	-	-		No	No	No
Capital	Transmission	Substation Claim	N/A	\$212	\$402	(\$190)	-47%	-	-	-		No	No	No
Capital	Other	CRE Project Management	Office Ergonomics (CORE Program)	\$2,319	\$2,550	(\$231)	-9%	-	-	-		No	No	No
Capital	Generation	Hydro - Dams and Waterways	Instrumentation / Communication Enhancements	\$8	\$254	(\$246)	-97%	-	-	-		No	No	No
Capital	Other	Communications Equipment	N/A	\$847	\$1,419	(\$572)	-40%	15	32	-17	-53%	No	No	Yes
Capital	Transmission	Transmission Tools and Work Equipment	N/A	\$826	\$1,448	(\$622)	-43%	-	-	-		No	No	No
Capital	Other	Fleet Asset Management	N/A	\$1,544	\$2,223	(\$679)	-31%	-	-	-		No	No	No
Capital	Distribution	Distribution Volt VAR Control and Capacitor Automation Program	N/A	\$1,852	\$2,634	(\$782)	-30%	277	450	-173	-38%	No	No	Yes
Capital	Generation	Catalina - Diesel	N/A	\$1,272	\$2,079	(\$807)	-39%	-	-	-		No	No	No
Capital	Other	Facility Asset Management	Fire Life Safety Portfolio Assessment	\$190	\$1,015	(\$825)	-81%	-	-	-		No	No	No
Capital	Distribution	Capacitor Bank Replacement Program	N/A	\$1,968	\$2,823	(\$855)	-30%	24	70	-46	-66%	No	No	Yes

Type	Business Line	GRC Activity	RAMP Control / Mitigation Name	Recorded Costs (\$000) - A	Authorized Costs (\$000) - B	Variance (\$000) (A - B)	% Variance - (A - B)/B	Recorded Units - C	Authorized Units - D	Variance (Units) - (C - D)	% Threshold Variance (Units) - (C - D)/D	\$ Threshold Variance Explanation	% \$ Variance Explanation	Unit Variance Explanation
Capital	Other	Technology Solutions	Protection of Generation Capabilities	\$ -	\$1,039	(\$1,039)	-100%	-	-	-		No	No	No
Capital	Transmission	Telecommunication Pole Loading Program Replacement	N/A	\$ -	\$1,141	(\$1,141)	-100%	-	-	-		No	No	No
Capital	Distribution	Substation Tools and Work Equipment	N/A	\$6,621	\$7,857	(\$1,236)	-16%	-	-	-		No	No	No
Capital	Distribution	Distribution Circuit Upgrades	N/A	\$43,532	\$44,935	(\$1,403)	-3%	-	-	-		No	No	No
Capital	Distribution	4 kV Substation Eliminations	N/A	\$1,829	\$3,417	(\$1,588)	-46%	2	4	-2	-50%	No	No	Yes
Capital	Other	Fire Science and Advanced Modeling	N/A	\$189	\$2,046	(\$1,857)	-91%	-	-	-		No	No	No
Capital	Transmission	Transmission/Substation Storm Response Capital	N/A	\$4,284	\$6,286	(\$2,002)	-32%	-	-	-		No	No	No
Capital	Distribution	New Capacitors	N/A	\$1,590	\$3,840	(\$2,250)	-59%	-	-	-		No	No	No
Capital	Other	Technology Solutions	Non-Electric Facilities/Protection of Major Business Functions	\$ -	\$2,581	(\$2,581)	-100%	-	-	-		No	No	No
Capital	Distribution	Automatic Reclosers Replacement Program	N/A	\$130	\$2,713	(\$2,583)	-95%	0	31	-31	-100%	No	No	Yes
Capital	Generation	Protection of Generation Assets	Protection of Generation Capabilities	\$642	\$3,337	(\$2,695)	-81%	-	-	-		No	No	No
Capital	Other	Cybersecurity Delivery and IT Compliance	Non-RAMP	\$2,202	\$5,694	(\$3,492)	-61%	-	-	-		No	No	No
Capital	Generation	Hydro - Dams and Waterways	Seepage Mitigation		\$3,958	(\$3,958)	-100%	-	-	-		No	No	No
Capital	Distribution	4 kV Cutovers - Load Growth Driven	N/A	\$15,455	\$19,575	(\$4,120)	-21%	-	-	-		No	No	No
Capital	Distribution	Substation Emergency Equipment	N/A	\$20,847	\$25,074	(\$4,227)	-17%	-	-	-		No	No	No
Capital	Other	Grid Mod Cybersecurity	Grid Modernization Cybersecurity	\$42,483	\$47,025	(\$4,542)	-10%	-	-	-		No	No	No
Capital	Other	Communications	N/A	\$70,375	\$75,219	(\$4,843)	-6%	-	-	-		No	No	No
Capital	Other	Grid Management System	N/A	\$39,129	\$44,288	(\$5,159)	-12%	-	-	-		No	No	No
Capital	Generation	Hydro - Prime Movers	N/A	\$4,943	\$10,154	(\$5,211)	-51%	-	-	-		No	No	No
Capital	Distribution	Overhead Conductor Program (OCP)	Overhead Conductor Program (OCP)	\$67,328	\$73,730	(\$6,402)	-9%	251	367	-116	-31%	No	No	Yes
Capital	Transmission	NERC Compliance Programs	N/A	\$0	\$7,676	(\$7,676)	-100%	-	-	-		No	No	No
Capital	Other	Facility Asset Management	Non-RAMP	\$49,125	\$56,883	(\$7,758)	-14%	-	-	-		No	No	No
Capital	Other	Facility Asset Management	Total	\$50,943	\$58,913	(\$7,969)	-14%	-	-	-		No	No	No
Capital	Other	All Hazards Assessment, Mitigation and Analytics	Non-RAMP	\$20,931	\$29,706	(\$8,775)	-30%	-	-	-		No	No	No
Capital	Other	Cybersecurity Delivery and IT Compliance	Perimeter Defense	\$26,004	\$39,056	(\$13,052)	-33%	-	-	-		No	Yes	No
Capital	Distribution	Automation	N/A	\$20,714	\$37,462	(\$16,748)	-45%	-	-	-		No	Yes	No
Capital	Distribution	Streetlight Maintenance and LED Conversions	N/A	\$31,654	\$52,323	(\$20,668)	-40%	34,000	76,300	-42,300	-55%	Yes	Yes	Yes
Capital	Distribution	Substation Equipment Replacement Program	N/A	\$17,057	\$38,245	(\$21,188)	-55%	43	217	-174	-80%	Yes	Yes	Yes
Capital	Transmission	Transmission Capital Maintenance	N/A	\$66,500	\$88,663	(\$22,163)	-25%	-	-	-		Yes	Yes	No
Capital	Distribution	Distribution Substation Plan Substations	N/A	\$44,111	\$66,855	(\$22,744)	-34%	-	-	-		Yes	Yes	No
Capital	Transmission	Substation Transformer Bank Replacement	N/A	\$64,806	\$89,028	(\$24,222)	-27%	19	35	-16	-46%	Yes	Yes	Yes
Capital	Distribution	Wildfire Covered Conductor Program	Wildfire Covered Conductor Program	\$673,774	\$698,699	(\$24,925)	-4%	757	1,050	-293	-28%	Yes	No	Yes
Capital	Transmission	Transmission Pole Loading Program Replacement	N/A	\$7,904	\$44,568	(\$36,665)	-82%	143	1,598	-1,455	-91%	Yes	Yes	Yes
Capital	Distribution	Distribution Deteriorated Pole Replacement	N/A	\$153,592	\$217,179	(\$63,587)	-29%	4787	10,513	-5,726	-54%	Yes	Yes	Yes
Capital	Transmission	Transmission Substation Plan (TSP)	N/A	\$22,685	\$90,622	(\$67,938)	-75%	-	-	-		Yes	Yes	No
Capital	Transmission	Transmission Line Rating Remediation (TLRR)	N/A	\$34,700	\$138,663	(\$103,963)	-75%	-	-	-		Yes	Yes	No
Capital	Distribution	Distribution Pole Loading Program Pole Replacement	N/A	\$86,096	\$271,447	(\$185,351)	-68%	2,205	14,187	-11,982	-84%	Yes	Yes	Yes
Capital	Transmission	Grid Reliability Projects	N/A	\$76,822	\$268,576	(\$191,754)	-71%	-	-	-		Yes	Yes	No

Type	Business Line	GRC Activity	RAMP Control/Mitigation Name	Recorded Costs (\$000) - A	Authorized Costs (\$000) - B	Variance (\$000) - (A-B)/B	% Variance- (A-B)/B	Recorded Units - C	Authorized Units - D	Variance (Units) - (C-D)	% Threshold Variance (Units) - (C-D)/D	\$ Threshold Variance Explanation	\$ % Variance Explanation	Unit Variance Explanation
O&M	Distribution	Distribution Routine Vegetation Management	N/A	\$444,683	\$412,241.51	\$32,441	8%	-	0	-		Yes	No	No
O&M	Other	PSPS Execution	PSPS Protocol and Support Functions	\$63,369	\$40,740.88	\$22,628	56%	-	0	-		Yes	Yes	No
O&M	Distribution	Enhanced Overhead Inspections and Remediations	N/A	\$128,056	\$115,442.23	\$12,614	11%	-	0	-		Yes	No	No
O&M	Other	Technology Delivery	N/A	\$24,249	\$13,454.53	\$10,794	80%	-	0	-		Yes	Yes	No
O&M	Distribution	Distribution Overhead Detail Inspections	N/A	\$15,764	\$6,026.26	\$9,737	162%	-	-	-		Yes	Yes	No
O&M	Other	PSPS Customer Support	PSPS Protocol and Support Functions	\$28,333	\$18,839.68	\$9,494	50%	-	0	-		Yes	Yes	No
O&M	Transmission	Transmission Routine Vegetation Management	N/A	\$55,490	\$47,662.28	\$7,828	16%	-	0	-		Yes	No	No
O&M	Generation	Mountainview	N/A	\$40,981	\$34,440.95	\$6,540	19%	-	0	-		Yes	No	No
O&M	Distribution	Substation O&M Breakdown Maintenance	N/A	\$8,300	\$2,988.62	\$5,312	178%	-	0	-		No	Yes	No
O&M	Generation	Hydro	N/A	\$55,868	\$50,562.80	\$5,306	10%	-	0	-		Yes	No	No
O&M	Other	Enhanced Situational Awareness	N/A	\$9,827	\$5,077.57	\$4,750	94%	-	0	-		No	No	No
O&M	Generation	Palo Verde	N/A	\$89,752	\$85,474.16	\$4,278	5%	-	0	-		Yes	No	No
O&M	Other	Environmental Management and Development	N/A	\$15,076	\$12,074.40	\$3,001	25%	-	0	-		Yes	No	No
O&M	Other	Software Maintenance and Replacement	N/A	\$116,901	\$114,376.77	\$2,524	2%	-	0	-		Yes	No	No
O&M	Transmission	Telecommunication Inspection and Maintenance	N/A	\$5,379	\$2,935.74	\$2,443	83%	-	0	-		No	No	No
O&M	Distribution	HFRA Sectionalizing Devices	N/A	\$1,954	\$0.00	\$1,954		-	0	-		No	No	No
O&M	Other	Cybersecurity Delivery and IT Compliance	Perimeter Defense	\$6,714	\$4,936.17	\$1,778	36%	-	0	6714		No	No	No
O&M	Distribution	Dead, Dying and Diseased Tree Removal	N/A	\$20,808	\$19,119.23	\$1,689	9%	-	0	20808		Yes	No	No
O&M	Transmission	Transmission Line Rating Remediation (TLRR)	N/A	\$3,544	\$2,135.87	\$1,408	66%	-	0	-		No	No	No
O&M	Other	Employee and Contractor Safety	Non-RAMP	\$6,358	\$4,991.27	\$1,367	27%	-	0	-		No	No	No
O&M	Other	Transmission/Substation Storm Response O&M	N/A	\$3,741	\$2,401.75	\$1,339	56%	-	0	-		No	No	No
O&M	Other	Employee and Contractor Safety	Total	\$6,408	\$5,235.39	\$1,172	22%	-	0	-		No	No	No
O&M	Distribution	Circuit Breaker Inspections and Maintenance	N/A	\$7,032	\$5,967.18	\$1,065	18%	-	0	7032		No	No	No
O&M	Other	Cyber Software License and Maintenance	Data Protection	\$1,121	\$200.78	\$920	458%	-	0	1121		No	No	No
O&M	Transmission	Equipment Washing	N/A	\$2,353	\$1,593.04	\$760	48%	-	0	-		No	No	No
O&M	Transmission	Transformer Inspections and Maintenance	N/A	\$2,267	\$1,561.28	\$706	45%	-	0	-		No	No	No
O&M	Other	Training, Drills and Exercises	Facility Emergency Management Program	\$919	\$294.19	\$625	212%	-	0	-		No	No	No

Type	Business Line	GRC Activity	RAMP Control/Mitigation Name	Recorded Costs (\$000) - A	Authorized Costs (\$000) - B	Variance (\$000) - (A-B)/B	% Variance- (A-B)/B	Recorded Units - C	Authorized Units - D	Variance (Units) - (C-D)	% Threshold Variance (Units) - (C-D)/D	\$ Threshold Variance Explanation	\$ % Variance Explanation	Unit Variance Explanation
O&M	Distribution	Distribution Apparatus Inspection and Maintenance	N/A	\$7,739	\$7,119.13	\$620	9%	-	0	7739		No	No	No
O&M	Other	Emergency Preparedness and Response	Emergency Management	\$2,954	\$2,357.84	\$596	25%	-	0	-		No	No	No
O&M	Transmission	Transmission Underground Structure Inspection	N/A	\$2,947	\$2,413.20	\$534	22%	-	0			No	No	No
O&M	Other	All Hazards Assessment, Mitigation and Analytics	Non-RAMP	\$1,123	\$630.27	\$493	78%	-	0	1123		No	No	No
O&M	Distribution	Distribution Underground Detail Inspections	N/A	\$8,176	\$7,689.86	\$486	6%	163323	167451	8176	-2%	No	No	No
O&M	Other	Emergency Preparedness and Response	Total	\$3,727	\$3,263.71	\$463	14%	-	0	-		No	No	No
O&M	Distribution	Other Substation Equipment Inspections and Maintenance	N/A	\$1,960	\$1,583.00	\$377	24%	-	0	-		No	No	No
O&M	Distribution	Infrared Inspection Program	Total	\$752	\$549.01	\$203	37%	6488	5400	752	20%	No	No	Yes
O&M	Other	Cyber Software License and Maintenance	SCADA Cybersecurity	\$280	\$155.04	\$125	81%	-	0	280		No	No	No
O&M	Distribution	Infrared Inspection Program	Infrared Inspections	\$564	\$459.00	\$105	23%	5401	4400	564	23%	No	No	Yes
O&M	Distribution	Infrared Inspection Program	Non-RAMP	\$188	\$90.00	\$98	109%	1086	1000	188	9%	No	No	No
O&M	Distribution	Fire Hazard Prevention	N/A	\$519	\$424.50	\$95	22%	-	0	-		No	No	No
O&M	Other	Emergency Preparedness and Response	Fire Management	\$773	\$699.58	\$73	11%	-	0	-		No	No	No
O&M	Other	Telecommunication Storm Response O&M	N/A	\$51	\$25.97	\$25	97%	-	0	-		No	No	No
O&M	Other	Cyber Software License and Maintenance	Non-RAMP	\$0	\$0.00	\$0		-	0	0		No	No	No
O&M	Other	Training and Development	Asset Protection	\$11	\$23.80	(\$13)	-53%	-	0	-		No	No	No
O&M	Distribution	Fusing Mitigation	N/A	-\$13	\$0.00	(\$13)		-	0	-		No	No	No
O&M	Other	Employee and Contractor Safety	Industrial Ergonomics	\$0	\$17.03	(\$17)	-100%	-	0	-		No	No	No
O&M	Other	Facility and Land Operations	Office Ergonomics - Core Program	\$0	\$55.85	(\$56)	-100%	-	0	-		No	No	No
O&M	Other	Cyber Software License and Maintenance	Interior Protection	\$1,121	\$1,214.70	(\$94)	-8%	-	0	1121		No	No	No
O&M	Other	Transmission Pole Loading Work Order Related Expense	N/A	\$197	\$318.95	(\$122)	-38%	-	0	-		No	No	No
O&M	Transmission	Transmission Pole Loading Assessments	N/A	\$1	\$125.55	(\$125)	-100%	-	0	-		No	No	No
O&M	Other	Safety Culture Transformation	Safety Culture Transformation	\$2,584	\$2,713.98	(\$130)	-5%	-	0	-		No	No	No
O&M	Distribution	Distribution Fault Anticipation	N/A	\$0	\$133.76	(\$134)	-100%	-	0	0		No	No	No
O&M	Other	External Communications	Non-RAMP	\$5,653	\$5,792.62	(\$140)	-2%	-	0	-		No	No	No

Type	Business Line	GRC Activity	RAMP Control/Mitigation Name	Recorded Costs (\$000) - A	Authorized Costs (\$000) - B	Variance (\$000) - (A-B)/B	% Variance- (A-B)/B	Recorded Units - C	Authorized Units - D	Variance (Units) - (C-D)	% Threshold Variance (Units) - (C-D)/D	\$ Threshold Variance Explanation	\$ % Variance Explanation	Unit Variance Explanation
O&M	Other	Employee and Contractor Safety	Contractor Safety Program	\$51	\$227.08	(\$176)	-78%	-	0	-		No	No	No
O&M	Other	Training and Development	Insider Threat Program Enhancement - Information Analysis - Base	\$17	\$207.42	(\$191)	-92%	-	0	-		No	No	No
O&M	Other	Facility and Land Operations	Fire Life Safety Portfolio Assessment	\$0	\$199.93	(\$200)	-100%	-	0	-		No	No	No
O&M	Other	Public Safety	N/A	\$536	\$749.66	(\$213)	-28%	-	0	-		No	No	No
O&M	Other	Grid Mod Cybersecurity	Grid Modernization Cybersecurity	\$506	\$731.92	(\$225)	-31%	-	0	-		No	No	No
O&M	Distribution	Patrolling and Locating Trouble	N/A	\$27,054	\$27,282.16	(\$228)	-1%	-	0	-		Yes	No	No
O&M	Generation	Peakers	N/A	\$9,012	\$9,291.48	(\$280)	-3%	-	0	-		No	No	No
O&M	Transmission	Transmission Request for Attachment Inspections	N/A	\$108	\$402.40	(\$295)	-73%	-	0	-		No	No	No
O&M	Transmission	Insulator Washing	N/A	\$617	\$941.63	(\$324)	-34%	-	0	-		No	No	No
O&M	Transmission	Transmission Pole Loading Repairs	N/A	\$109	\$435.30	(\$327)	-75%	6	23	109	-74%	No	No	Yes
O&M	Distribution	Substation - Inspections and Maintenance	N/A	\$1,178	\$1,516.65	(\$339)	-22%	-	0	-		No	No	No
O&M	Distribution	Load Side Support	N/A	\$1,232	\$1,579.12	(\$348)	-22%	-	0	-		No	No	No
O&M	Generation	Catalina - Diesel	N/A	\$6,176	\$6,595.34	(\$420)	-6%	-	0	6176		No	No	No
O&M	Other	Cybersecurity Delivery and IT Compliance	Data Protection	\$3,808	\$4,234.26	(\$426)	-10%	-	0	3808		No	No	No
O&M	Other	Training, Drills and Exercises	Total	\$2,121	\$2,669.19	(\$548)	-21%	-	0	-		No	No	No
O&M	Other	Fire Science and Advanced Modeling	N/A	\$4,588	\$5,156.46	(\$569)	-11%	-	0	-		No	No	No
O&M	Transmission	Transmission Intrusive Pole Inspections	N/A	\$42	\$697.63	(\$655)	-94%	715	14360	42	-95%	No	No	Yes
O&M	Distribution	Meter System Maintenance Design	N/A	\$2,923	\$3,590.48	(\$667)	-19%	-	0	-		No	No	No
O&M	Distribution	Wildfire Covered Conductor Program	N/A	-\$700	\$0.00	(\$700)		-	0	-		No	No	No
O&M	Other	All Hazards Assessment, Mitigation and Analytics	Climate Adaptation & Severe Weather	\$273	\$987.38	(\$714)	-72%	-	0	273		No	No	No
O&M	Other	Cybersecurity Delivery and IT Compliance	Interior Protection	\$3,636	\$4,374.42	(\$739)	-17%	-	0	3636		No	No	No
O&M	Other	Training Delivery and Development - Transmission and Distribution	N/A	\$20,469	\$21,216.30	(\$747)	-4%	-	0	-		Yes	No	No
O&M	Other	Cyber Software License and Maintenance	Perimeter Defense	\$1,962	\$2,784.12	(\$823)	-30%	-	0	1962		No	No	No
O&M	Distribution	Wildfire Vegetation Management	Expanded Vegetation Management	\$37,579	\$38,420.75	(\$842)	-2%	-	0	-		Yes	No	No
O&M	Other	Planning, Continuity and Governance	N/A	\$779	\$1,648.95	(\$870)	-53%	-	0	-		No	No	No
O&M	Distribution	Distribution Pole Loading Repairs	N/A	\$10	\$939.91	(\$930)	-99%	1	0	10		No	No	No

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O&M	Other	Cyber Software License and Maintenance	Total	\$5,604	\$6,697.05	(\$1,093)	-16%	-	0	5604		No	No	No
O&M	Generation	Solar	N/A	\$496	\$1,626.07	(\$1,130)	-70%	-	0	-		No	No	No
O&M	Other	Training, Drills and Exercises	Emergency Management	\$1,202	\$2,376.13	(\$1,174)	-49%	-	0	-		No	No	No
O&M	Distribution	Distribution Pole Loading Assessments	N/A	\$2	\$1,215.99	(\$1,214)	-100%	-	0	-		No	No	No
O&M	Other	Cyber Software License and Maintenance	Grid Modernization Cybersecurity	\$1,121	\$2,342.40	(\$1,222)	-52%	-	0	1121		No	No	No
O&M	Other	Training and Development	Safety Culture Transformation	\$3,158	\$4,483.84	(\$1,326)	-30%	-	0	-		No	No	No
O&M	Other	Cybersecurity Delivery and IT Compliance	Grid Modernization Cybersecurity	\$3,781	\$5,124.19	(\$1,343)	-26%	-	0	3781		No	No	No
O&M	Other	Distribution Storm Response O&M	N/A	\$15,515	\$16,910.41	(\$1,395)	-8%	-	0	-		Yes	No	No
O&M	Other	Facility and Land Operations	Electrical Inspections	\$0	\$1,818.40	(\$1,818)	-100%	-	0	-		No	No	No
O&M	Distribution	Relay Inspections and Maintenance	N/A	\$1,757	\$3,818.55	(\$2,061)	-54%	-	0	-		No	No	No
O&M	Other	External Communications	Public Outreach	\$5,466	\$7,664.69	(\$2,199)	-29%	-	0	-		No	No	No
O&M	Transmission	Transmission Line Patrols	N/A	\$6,202	\$8,627.47	(\$2,425)	-28%	-	0	-		No	No	No
O&M	Other	Cybersecurity Delivery and IT Compliance	SCADA Cybersecurity	\$1,362	\$3,840.01	(\$2,478)	-65%	-	0	1362		No	No	No
O&M	Other	External Communications	Total	\$10,867	\$13,457.31	(\$2,590)	-19%	-	0	-		Yes	No	No
O&M	Other	Safety Activities - Transmission & Distribution	Non-RAMP	\$15,545	\$18,156.95	(\$2,612)	-14%	-	0	-		Yes	No	No
O&M	Other	Safety Activities - Transmission & Distribution	Safety Controls	\$0	\$2,623.96	(\$2,624)	-100%	-	0	-		No	No	No
O&M	Other	All Hazards Assessment, Mitigation and Analytics	Seismic Building Safety Program	\$290	\$3,077.44	(\$2,788)	-91%	-	0	290		No	No	No
O&M	Other	Education, Safety and Operations	N/A	\$6,063	\$8,852.47	(\$2,790)	-32%	-	0	-		No	No	No
O&M	Other	All Hazards Assessment, Mitigation and Analytics	Total	\$1,686	\$4,695.09	(\$3,009)	-64%	-	0	1686		No	No	No
O&M	Other	Develop and Manage Policy and Initiatives	N/A	\$16,002	\$19,200.56	(\$3,198)	-17%	-	0	16002		Yes	No	No
O&M	Other	Environmental Programs	N/A	\$18,359	\$21,586.48	(\$3,227)	-15%	-	0	-		Yes	No	No
O&M	Other	Cybersecurity Delivery and IT Compliance	Non-RAMP	\$3	\$3,257.74	(\$3,254)	-100%	-	0	3		No	No	No
O&M	Other	Training Seat-Time - Transmission and Distribution	N/A	\$27,850	\$31,407.46	(\$3,558)	-11%	-	0	-		Yes	No	No
O&M	Other	Ethics and Compliance	N/A	\$13,771	\$17,349.65	(\$3,579)	-21%	-	0	-		Yes	No	No
O&M	Distribution	Distribution Request for Attachment Inspections	N/A	\$10	\$3,656.82	(\$3,647)	-100%	-	0	-		No	No	No
O&M	Other	Training and Development	Non-RAMP	\$14,790	\$18,438.62	(\$3,649)	-20%	-	0	-		Yes	No	No

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O&M	Other	Technology Infrastructure Maintenance and Replacement	N/A	\$22,510	\$26,280.90	(\$3,771)	-14%	-	0	-		Yes	No	No
O&M	Transmission	Roads and Rights of Way	N/A	\$1,038	\$5,523.67	(\$4,486)	-81%	-	0	-		No	No	No
O&M	Distribution	Streetlight Operations, Inspections, and Maintenance	N/A	\$3,538	\$8,096.00	(\$4,558)	-56%	-	0	-		No	No	No
O&M	Other	Physical Security	Asset Protection and Insider Threat Program Enhancement - Information Analysis - Base	\$23,371	\$28,105.66	(\$4,735)	-17%	-	0	-		Yes	No	No
O&M	Distribution	Distribution Intrusive Pole Inspections	N/A	\$1,601	\$6,439.50	(\$4,838)	-75%	11773	129240	1601	-91%	No	No	Yes
O&M	Other	Facility and Land Operations	Non-RAMP	\$61,757	\$66,810.64	(\$5,053)	-8%	-	0	-		Yes	No	No
O&M	Other	Training and Development	Total	\$17,948	\$23,153.68	(\$5,206)	-22%	-	0	-		Yes	Yes	No
O&M	Other	Safety Activities - Transmission & Distribution	Total	\$15,545	\$20,780.90	(\$5,236)	-25%	-	0	-		Yes	Yes	No
O&M	Other	Organizational Support	N/A	\$1,376	\$7,407.37	(\$6,031)	-81%	-	0	-		No	Yes	No
O&M	Other	Cybersecurity Delivery and IT Compliance	Total	\$19,304	\$25,766.79	(\$6,463)	-25%	-	0	19304		Yes	Yes	No
O&M	Other	Facility and Land Operations	Total	\$61,757	\$68,884.83	(\$7,128)	-10%	-	0	-		Yes	No	No
O&M	Transmission	Transmission O&M Maintenance	N/A	\$15,785	\$24,645.21	(\$8,861)	-36%	-	0	-		Yes	Yes	No
O&M	Distribution	Monitoring and Operating Substations	N/A	\$39,891	\$51,690.95	(\$11,800)	-23%	-	0	-		Yes	Yes	No
O&M	Transmission	Monitoring Bulk Power System	N/A	\$52,514	\$64,378.96	(\$11,865)	-18%	-	0	-		Yes	No	No
O&M	Distribution	Distribution Preventive and Breakdown O&M Maintenance	N/A	\$116,444	\$130,766.72	(\$14,323)	-11%	-	0	-		Yes	No	No