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|---|---|
| Application No.: | A.23-05-010 |
| Exhibit No.: | SCE-13 Vol. 9 |
| Witness: | M. Paulin |


(U 338-E)

# 2025 General Rate Case
# Rebuttal Testimony

## *Poles*

Before the

**Public Utilities Commission of the State of California**

Rosemead, California
April 15, 2024

# SCE-13 Vol. 09: Poles

## Table Of Contents

# I.
# INTRODUCTION

In this rebuttal testimony, Southern California Edison Company (SCE) responds to Cal Advocates' testimony on Exhibit SCE-02, Volume 9, on Poles, which describes SCE's inspection, repair, replacement, and the joint use management of poles. SCE performs these activities to provide safe, reliable electrical service while maintaining compliance with CPUC General Order 95 (GO 95) and GO 165 requirements. No party challenges SCE's $1.289 million (constant 2022$) request for O&M expense for the 2025 Test Year.[1]

Only Cal Advocates opposes SCE's capital forecast by raising concern over SCE's 2024 forecast for Transmission Deteriorated Pole Replacement,[2] which SCE addresses below in this rebuttal testimony.

SCE urges the Commission to adopt SCE's forecast for Poles for both O&M and Capital, which, if approved, will allow SCE to continue its commitment to safely and efficiently carry out inspections, repairs, replacements, and the joint use management of poles.

## A. Summary of SCE's Rebuttal Position

SCE's and Cal Advocates' forecasts for Poles O&M expense and capital expenditures are shown in the following tables.

Table I-1 provides a summary of the Poles 2025 O&M expense forecasts for SCE, Cal Advocates, and TURN. Cal Advocates did not dispute SCE's O&M forecast for Test Year 2025.[3] TURN and other intervenors did not submit intervenor testimony for the Poles volume. As seen in the table below, there is no variance between SCE and the other parties, and therefore the Commission should adopt SCE's O&M forecast for Poles.

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1 Ex. SCE-02, Vol. 9, p. 2.

2 Ex. CA-04, p. 41. SCE's direct testimony on its forecast for Transmission Deteriorated Pole Replacement is found in Chapter V of Exhibit SCE-02, Vol. 9.

3 Ex. CA-02, p. 2.

***Table I-1***
***Poles***
***2025 O&M Forecast***
***Summary of SCE and Cal Advocates, Position***
*(2022 Constant $000)*

| Line No. | GRC Activity | 2025 Forecast | | | Variance from SCE | | SCE Rebuttal |
|---|---|---|---|---|---|---|---|
| | | SCE | Cal Advocates | TURN | Cal Advocates | TURN | |
| 1 | Distribution Intrusive Pole Inspections | $5,837 | $5,837 | N/A | $0 | N/A | $5,837 |
| 2 | Distribution Joint Pole O&M Credits | ($8,967) | ($8,967) | N/A | $0 | N/A | ($8,967) |
| 3 | Distribution Joint Pole Operations | $1,039 | $1,039 | N/A | $0 | N/A | $1,039 |
| 4 | Distribution Request for Attachment Inspections | $1,986 | $1,986 | N/A | $0 | N/A | $1,986 |
| 5 | Transmission Intrusive Pole Inspections | $657 | $657 | N/A | $0 | N/A | $657 |
| 6 | Transmission Joint Pole Operations | $106 | $106 | N/A | $0 | N/A | $106 |
| 7 | Transmission Request for Attachment Inspections | $631 | $631 | N/A | $0 | N/A | $631 |
| 8 | **Total** | $1,289 | $1,289 | N/A | $0 | N/A | $1,289 |

Table I-2 summarizes Poles 2023-2025 capital expenditure forecast by SCE, Cal Advocates, and TURN, along with the variance from SCE's forecast.

***Table I-2***
***Poles Capital Expenditures***
***2023-2025 Forecast***
***Summary of SCE, Cal Advocates, and TURN***
*(Nominal $000)*

| Line No. | GRC Activity | 2023 - 2025 Forecast | | | Variance from SCE | | SCE Rebuttal |
|---|---|---|---|---|---|---|---|
| | | SCE | Cal | TURN | Cal | TURN | |
| 1 | Distribution Joint Pole Capital Credits | ($203,557) | ($203,557) | N/A | $0 | N/A | ($205,578) |
| 2 | Distribution Deteriorated Pole Replacement | $539,830 | $539,830 | N/A | $0 | N/A | $546,046 |
| 3 | Distribution Pole Loading Program Pole Replacement | $435,159 | $435,159 | N/A | $0 | N/A | $413,775 |
| 4 | Distribution Wood Pole Disposal - Pole Loading Program | $2,001 | $2,001 | N/A | $0 | N/A | $667 |
| 5 | Distribution Wood Pole Disposal | $11,005 | $11,005 | N/A | $0 | N/A | $13,444 |
| 6 | Transmission Joint Pole Capital Credits | ($56,443) | ($56,443) | N/A | $0 | N/A | ($49,490) |
| 7 | Transmission Deteriorated Pole Replacement | $280,210 | $268,244 | N/A | ($11,966) | N/A | $284,719 |
| 8 | Telecommunication Deteriorated Pole Replacement | $934 | $934 | N/A | $0 | N/A | $602 |
| 9 | Transmission Pole Loading Program Replacement | $42,961 | $42,961 | N/A | $0 | N/A | $36,658 |
| 10 | Telecommunication Pole Loading Program Replacement | $206 | $206 | N/A | $0 | N/A | $136 |
| 11 | **Total** | $1,052,306 | $1,040,340 | N/A | ($11,966) | N/A | $1,040,979 |

## 1. O&M Forecast Summary

As seen in Table I-1 above, for the Poles O&M forecast, Cal Advocates did not contest SCE's Test Year 2025 forecast for O&M activities totaling $1.289 million.[4] TURN and other

[4] Ex. CA-05, p. 2.

intervenors did not submit intervenor testimony regarding Poles. Table I-3 provides the recorded amounts for 2018-2022 and the 2025 Test Year forecast for SCE, Cal Advocates, and TURN.

***Table I-3***
***Poles***
***2018-2022 Recorded/2025 Forecast***
***Summary of SCE, Cal Advocates, and TURN Position***
*(2022 Constant $000)*

| Line No. | GRC Activity | SCE Recorded | | | | | 2025 Forecast | | | Variance | | SCE Rebuttal Position |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2018 | 2019 | 2020 | 2021 | 2022 | SCE Application | Cal Advocates | TURN | Cal Advocates | TURN | |
| 1 | Distribution Pole Loading Assessments | $28,058 | $25,460 | $18,001 | $3,636 | $594 | $0 | $0 | N/A | $0 | N/A | $0 |
| 2 | Distribution Intrusive Pole Inspections | $6,421 | $6,800 | $6,975 | $6,345 | $5,806 | $5,837 | $5,837 | N/A | $0 | N/A | $5,837 |
| 3 | Distribution Joint Pole O&M Credits | ($12,833) | ($13,940) | ($9,534) | ($10,635) | ($6,732) | ($8,967) | ($8,967) | N/A | $0 | N/A | ($8,967) |
| 4 | Distribution Joint Pole Operations | $1,730 | $1,715 | $1,473 | $1,177 | $990 | $1,039 | $1,039 | N/A | $0 | N/A | $1,039 |
| 5 | Distribution Request for Attachment Inspections | $2,568 | $1,960 | $2,276 | $1,328 | $1,959 | $1,986 | $1,986 | N/A | $0 | N/A | $1,986 |
| 6 | Distribution Pole Loading Repairs | $3,138 | $4,902 | $10,500 | $5,968 | $1,250 | $0 | $0 | N/A | $0 | N/A | $0 |
| 7 | Transmission Intrusive Pole Inspections | $712 | $577 | $641 | $446 | $484 | $657 | $657 | N/A | $0 | N/A | $657 |
| 8 | Transmission Pole Loading Assessments | $2,362 | $798 | $612 | $326 | $89 | $0 | $0 | N/A | $0 | N/A | $0 |
| 9 | Transmission Joint Pole Operations | $119 | $131 | $135 | $119 | $101 | $106 | $106 | N/A | $0 | N/A | $106 |
| 10 | Transmission Request for Attachment Inspections | $413 | $681 | $727 | $483 | $617 | $631 | $631 | N/A | $0 | N/A | $631 |
| 11 | Transmission Pole Loading Repairs | $114 | $178 | $390 | $858 | $315 | $0 | $0 | N/A | $0 | N/A | $0 |
| 12 | **Total** | $32,800 | $29,261 | $32,197 | $10,050 | $5,472 | $1,289 | $1,289 | N/A | $0 | N/A | $1,289 |

## 2. Capital Expenditure Summary

Table I-4 provides the recorded amounts for 2018-2022 and SCE's rebuttal position for 2023-2025, which includes 2023 recorded costs. Table I-5 provides the 2023-2025 capital expenditure forecasts proposed by SCE and Cal Advocates. As mentioned above, TURN did not submit intervenor testimony for this volume. As such, TURN is not included in Table I-5.

***Table I-4***[5]
***Poles Capital Expenditures***
***2018-2023 Recorded/2024-2025 Forecast***
***Summary of SCE, Cal Advocates, and TURN Position***
*(Nominal $000)*

| Line # | GRC Activity | SCE Recorded | | | | | SCE Rebuttal Position | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 Recorded | 2024 Forecast | 2025 Forecast | Total 2023-2025 |
| 1 | Distribution Joint Pole Capital Credits | ($79,628) | ($95,192) | ($62,985) | ($88,787) | ($66,663) | ($77,810) | ($69,231) | ($58,537) | ($205,578) |
| 2 | Distribution Deteriorated Pole Replacement | $195,941 | $196,678 | $182,108 | $218,326 | $210,776 | $179,378 | $179,890 | $186,777 | $546,046 |
| 3 | Distribution Pole Loading Program Pole Replacement | $116,912 | $157,950 | $97,192 | $279,422 | $349,308 | $267,372 | $134,893 | $11,510 | $413,775 |
| 4 | Distribution Wood Pole Disposal - Pole Loading Program | $0 | $0 | $0 | $0 | $0 | $0 | $620 | $47 | $667 |
| 5 | Distribution Wood Pole Disposal | $3,704 | $4,669 | $4,383 | $5,350 | $6,494 | $5,967 | $3,714 | $3,764 | $13,444 |
| 6 | Transmission Joint Pole Capital Credits | ($4,283) | ($6,333) | ($3,173) | ($4,010) | ($5,799) | ($7,257) | ($20,769) | ($21,463) | ($49,490) |
| 7 | Transmission Deteriorated Pole | $77,015 | $88,766 | $89,443 | $90,033 | $110,145 | $93,198 | $103,047 | $88,474 | $284,719 |
| 8 | Telecommunication Deteriorated Pole Replacement | $96 | $1,817 | $1,300 | $261 | $189 | $159 | $355 | $88 | $602 |
| 9 | Transmission Pole Loading Program | $24,657 | $41,471 | $23,796 | $26,864 | $35,033 | $20,677 | $14,825 | $1,156 | $36,658 |
| 10 | Telecommunication Pole Loading Program Replacement | $0 | $1 | $3 | $20 | $30 | ($9) | $145 | $0 | $136 |
| 11 | **Total** | $334,414 | $389,826 | $332,067 | $527,478 | $639,513 | $481,674 | $347,489 | $211,816 | $1,040,979 |

[5] *See* Ex. SCE-11 for 2023 recorded capital expenditures and Ex. SCE-18, Vol. 01, Chapter VI for SCE's proposal that the Commission authorize SCE's 2023 recorded expenditures in place of SCE's original 2023 forecast across the case.

***Table I-5***[6] [7]
***Poles Capital Expenditures***
***2023-2025 Forecast***
***Summary of SCE Rebuttal and Cal Advocates Position***
*(Nominal $000)*

| Line No. | GRC Activity | SCE Rebuttal Position | | | | Cal Advocates | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2023 Recorded | 2024 Forecast | 2025 Forecast | Total 2023-2025 | 2023 Forecast* | 2024 | 2025 | Total 2023-2025 | Variance From SCE 2023-2025 |
| 1 | Distribution Joint Pole Capital Credits | ($77,810) | ($69,231) | ($58,537) | ($205,578) | ($75,789) | ($69,231) | ($58,537) | ($203,557) | $2,021 |
| 2 | Distribution Deteriorated Pole | $179,378 | $179,890 | $186,777 | $546,046 | $173,163 | $179,890 | $186,777 | $539,830 | ($6,215) |
| 3 | Distribution Pole Loading Program Pole Replacement | $267,372 | $134,893 | $11,510 | $413,775 | $288,756 | $134,893 | $11,510 | $435,159 | $21,384 |
| 4 | Distribution Wood Pole Disposal - Pole Loading Program | $0 | $620 | $47 | $667 | $1,333 | $620 | $47 | $2,001 | $1,333 |
| 5 | Distribution Wood Pole Disposal | $5,967 | $3,714 | $3,764 | $13,444 | $3,527 | $3,714 | $3,764 | $11,005 | ($2,440) |
| 6 | Transmission Joint Pole Capital Credits | ($7,257) | ($20,769) | ($21,463) | ($49,490) | ($14,211) | ($20,769) | ($21,463) | ($56,443) | ($6,953) |
| 7 | Transmission Deteriorated Pole | $93,198 | $103,047 | $88,474 | $284,719 | $88,690 | $91,080 | $88,474 | $268,244 | ($16,475) |
| 8 | Telecommunication Deteriorated Pole Replacement | $159 | $355 | $88 | $602 | $492 | $355 | $88 | $934 | $332 |
| 9 | Transmission Pole Loading Program | $20,677 | $14,825 | $1,156 | $36,658 | $26,980 | $14,825 | $1,156 | $42,961 | $6,303 |
| 10 | Telecommunication Pole Loading Program Replacement | ($9) | $145 | $0 | $136 | $61 | $145 | $0 | $206 | $70 |
| 11 | **Total** | $481,674 | $347,489 | $211,816 | $1,040,979 | $493,001 | $335,522 | $211,816 | $1,040,340 | ($640) |

[6] *See* Ex. SCE-11 for 2023 recorded capital expenditures and Ex. SCE-18, Vol. 01, Chapter VI for SCE's proposal that the Commission authorize SCE's 2023 recorded expenditures in place of SCE's original 2023 forecast across the case.

[7] 2023-2025 variance for non-contested activities are due to the difference in SCE's 2023 recorded vs. Cal Advocates uncontested forecast amount.

## II.

## CAPITAL EXPENDITURES

### A. Transmission Deteriorated Pole Replacements

SCE's transmission deteriorated pole replacements activity is described in SCE's direct testimony in Chapter V of Exhibit SCE-02, Vol. 9. In summary, pole remediation activities are required by GO 95, which outlines that once a safety hazard or potential violation, such as a pole deterioration or noncompliant safety factor, has been identified, the pole must be remediated.[8] GO 95 places the responsibility on the utility, such as SCE, to take appropriate corrective action to remedy potential GO 95 violations and safety hazards.[9]

For Transmission Deteriorated Pole Replacement forecast, and all pole replacement forecasts discussed in the Poles volume, SCE develops a scope forecast and applies it to a unit cost in order to develop the most accurate forecast for the program.

SCE notes its forecast includes an adjustment related to the Employee Compensation Program proposal discussed in Exhibit SCE-06, Volume 4. No intervenor disputed the general structure of this proposal or the respective forecast adjustment included in this GRC Activity.[10] To the extent the Commission adopts a forecast based on a different forecast methodology than recommended by SCE (e.g., Last Year recorded, 3-Year average, etc.), this Employee Compensation Program adjustment should be added back to account for the incremental cost in the forecast period due to this undisputed proposal. See Exhibit SCE-17, Volume 3, Chapter III for additional discussion.

#### 1. Cal Advocates' Position

SCE's capital expenditure forecast for Transmission Deteriorated Pole Replacements is $88.689 million in 2023, $103.047 million in 2024, and $88.474 million in 2025.[11] Cal Advocates takes issue with SCE's 2024 Capital forecast and recommends a reduction to $91.080 million, which is

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[8] Ex. SCE-02, Vol. 9, p. 18.

[9] Ex. SCE-02, Vol. 9, p. 18.

[10] TURN does dispute the minor corresponding increase in forecast 401(k) costs derivate of the STIP-to-base conversion.

[11] See Ex. CA-04, Table 4-18, p. 41 (citing SCE's spreadsheet and response to question 1 of PubAdv-SCE-016-RA6, Q1). The figures presented on Cal Advocates' Table 4-18 for 2023-2025 are a subset of the figures in SCE's forecast in Figure V-7 of SCE's Exhibit 02, Vol. 9, page 22 ("Transmission Pole Replacement Forecast").

$11.967 million less than SCE's 2024 forecast of $103.047 million.[12] While Cal Advocates recommends a reduction for Transmission Deteriorated Pole Replacement in 2024, Cal Advocates does not contest SCE's Transmission Deteriorated Pole Replacement forecasts for 2023 and 2025. Cal Advocates proposes using a five-year average to calculate SCE's 2024 forecast, which results in Cal Advocates proposed $91.080 Transmission Deteriorated Pole Replacement forecast for 2024.

**2. SCE's Rebuttal to Cal Advocates' Position**

In determining the 2024 Capital forecast for Transmission Deteriorated Pole Replacements, the issue before the Commission is whether the Commission should adopt (1) SCE's forecasting methodology, which is unit-cost based and is used by SCE for the other forecasted years (i.e., 2023 and 2025) and not contested by Cal Advocates, or (2) Cal Advocates' proposed methodology to use a five-year average (2018-2022) for only one forecast year (2024), while leaving the other years' methodology unchanged. For the reasons set forth below, SCE's unit cost methodology is the correct forecasting methodology for Transmission Deteriorated Pole Replacements. It is program based and driven by SCE's analysis of historical data. The unit cost methodology has been consistently applied by SCE to forecast all pole replacement programs (Distribution, Transmission, Underbuild, and Telecommunications). SCE has used this methodology in the past, and it has been adopted by the Commission in SCE's 2021 prior rate case decision.[13]

By way of background, SCE identifies the unit cost elements for its pole replacements (including Transmission Deteriorated Pole Replacements), which can be found in Table V-6 of SCE's direct testimony.[14] To develop its unit cost forecast, SCE begins by analyzing the cost to replace a pole based on historical data from closed work orders. SCE evaluates other factors that would impact the pole replacement unit cost going forward.[15] SCE develops a scope forecast through SCE's various inspection programs and applies it to a unit cost in order to develop the most accurate forecast for the program.

In contrast, Cal Advocates' methodology is flawed both in its application and rationale. Cal Advocates does not contest years 2023 and 2025 for this activity, nor do they oppose any of the other pole replacement programs that use the exact same methodology (i.e., Distribution, Underbuild, and Telecommunication Pole Replacements). Cal Advocates provides no justification for using a five-

[12] Ex. CA-04, p. 41.

[13] Ex. SCE-02, Vol. 9, p. 26, D. 21-08-036, pp. 159-163.

[14] Ex. SCE-02, Vol. 9, p. 27.

[15] Ex. SCE-02, Vol. 9, p. 26.

year average for only 2024, while subsequently reverting back to SCE's forecast and underlying unit cost methodology for all other years and pole replacement activities. Arbitrarily proposing a five-year average for only one year without any logical basis is unreasonable.

Transmission Deteriorated Pole Replacement is a long-established replacement program based on various inspections and activities regarding SCE's poles. As indicated earlier, this unit cost-based methodology has been used in the past, with appropriate modifications, and has been adopted by the Commission. In discovery, SCE indicated that the scope varies over time.[16] The scope is based on compliance due dates for a specific year as well as efficiency opportunities for some poles and project delays for others. Essentially the scope is driven by field findings that prompt replacements, which is typical of any program and can vary depending on the findings and due dates.

Cal Advocates' forecast for 2024 is also internally contradictory. Cal Advocates proposes using a five-year average from 2018-2022 to create the forecast for Poles. However, that historical period contains the same kinds of variations that Cal Advocates cites as the foundation of its opposition for the 2024 forecast. In 2019, SCE spent a total of $88.766 million on this activity, while in 2022 SCE spent a total of $101.258 million. Cal Advocates takes issue with the specific fluctuation shown in SCE's forecast for 2024, yet Cal Advocates proposes a forecast demonstrating these same kinds of fluctuations.

Finally, SCE disagrees with Cal Advocates' assertion that SCE did not provide the information needed to support its forecast.[17] Cal Advocates also claims that SCE did not provide step-by-step calculations.[18] This is simply incorrect, as not only did SCE provide extensive testimony and workpapers detailing the calculations,[19] but also SCE provided an attachment in PUBAdv-SCE-117-RA6 Q.01.a-e outlining the step-by-step calculations leading to SCE's forecast.[20] These calculations showed specific assumptions, calculations, unit cost details, count and type of units, and calculations for total costs. Notably, Cal Advocates targets SCE's 2024 forecast (which happens to be higher than the 2023 and 2025 forecasts), despite its alignment with the methodology applied to 2023 and 2025.

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16 SCE's response to DR PUBAdv-SCE-270-RA6 Q.3, which is found in App. A to this rebuttal testimony.

17 Ex. CA-04, pp. 44-45.

18 Ex. CA-04, p. 45.

19 See Ex. SCE-02, Vol. 9, pp. 24-32. WPSCE-02V09 pp. 57-64 Pole Replacement Forecast, which is found in App. B to this rebuttal testimony.

20 SCE's response to DR PUBAdv-SCE-117-RA6 Q.01-a-e, which is found in App. A to this rebuttal testimony.

### 3. Conclusion

SCE opposes Cal Advocates' proposed reduction of $11.9 million to its Transmission Deteriorated Pole Replacement forecast for 2024. The basis for this reduced forecast is unjustified and inconsistent, targeting only one out of the three years in SCE's 2023-2025 forecast. Without any reasoning to justify the selective application of this methodology, it is unreasonable to proceed with Cal Advocates' proposed reduction. SCE reaffirms the validity of its methodologies and proposes the Commission adopt its position as stated in Exhibit SCE-02 Vol. 09 and this rebuttal testimony.

# Appendix A

# SCE 13 Volume 9 Poles Data Request Responses

# Appendix A
# 2025 General Rate Case
# Index of Data Request Responses
# SCE-13 Vol. 09 – Poles

*Southern California Edison*
*A.23-05-010 – SCE 2025 GRC*

**DATA REQUEST SET P u b A d v - S C E - 2 7 0 - R A 6**

**To: Public Advocates Office**
**Prepared by: Joseph Schmitt**
**Job Title: Regulatory Affairs and Compliance Advisor**
**Received Date: 11/7/2023**

**Response Date: 11/20/2023**

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**Question 03:**
Referring to SCE's response to Cal Advocates data request PubAdv-SCE-117-RA6, Q.1h, SCE states that "The increase in pole costs in 2024 is primarily due to an increase in replacement scope relative to 2023. In 2023 we have 2,279 replacements in scope, in 2024 this scope increases to 2,603 replacements, and in 2025 the number of replacements reverts back to 2,175."

Provide documentation that can verify the need of 2,603 replacements in 2024, relative to 2,279 replacement in 2023 and 2,175 replacements in 2025.

**Response to Question 03:**

Pole replacements are identified through various inspection programs and will have compliance due dates based on several different factors. A majority of the poles forecast in 2024 have already been identified for replacement and have compliance due dates in 2024. Specifically, there are a greater number of 2024 compliance due poles as compared to 2023 and 2025. A number of different activities (PLC, IPI, non-programmatic, etc.) drive pole replacements and while overall scope across all activities remains consistent in years 2023-2028, there can be cyclical spikes within the activities that drive pole replacements. Please see SCE 02 Volume 9 pp. 18-20 for details on SCE compliance due date time frames, details on the regulatory requirements driving pole replacements, and more information on the drivers for pole replacements. Please refer to WPSCE02V9 pp. 61-64 for details on SCE Transmission scope and how it is applied to the unit cost.

*Southern California Edison*
*A.23-05-010 – SCE 2025 GRC*

**DATA REQUEST SET P u b A d v - S C E - 1 1 7 - R A 6**

**To: Public Advocates Office**
**Prepared by: Desiree Lara**
**Job Title: Senior Specialist**
**Received Date: 8/22/2023**

**Response Date: 9/6/2023**

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**Question 01.a-e:**
Referring to SCE's spreadsheet titled "PubAdv-SCE-016-RA6 Q1" provided in response to Cal Advocates data request PubAdv-SCE-016-RA6, Q.1, SCE provided the 2018-2022 recorded and 2023-2028 forecasted costs for Transmission Deteriorated Pole Replacement program. The following data is from SCE's spreadsheet titled "PubAdv-SCE-016-RA6 Q1" for the Transmission Deteriorated Pole Replacement Forecast: SCE did not provide any details or calculations on how it estimates the 2023-2028 forecasts in its workpaper of Ex. SCE-02, Vol. 09, pages 51-52. Referring to SCE's testimony, Ex. SCE-02 Vol. 09, pages 27-28, SCE states that "SCE determined that using a 2021 and 2022 closed work order sample was the best representation of Transmission, Telecommunication, and Underbuild base unit costs, as a single year would not be an accurate representation of future costs." Referring to SCE's testimony, Ex. SCE-02 Vol. 09, pages 23-24, SCE states "Sometimes, poles scheduled for replacement may be delayed due to execution constraints, such as environmental, permitting requirements, limited physical access to the pole due to obstructions, or remote locations." Referring to SCE's testimony, Ex. SCE-02 Vol. 09, page 1, SCE states, "The Pole Loading Program (PLP) was another pole replacement program in the 2021 GRC. As of 2022, the Pole Loading Program ended, and any subsequent pole replacements associated with PLP will not continue after 2025."

a. In an Excel format, provide SCE's step-by-step calculation and the basis showing how SCE estimated its 2023-2028 Transmission Deteriorated Pole Replacement forecasts.

b. Provide the name of the methodology, such as five-year average, three-year average, or any other methodology that SCE used to estimate its 2023-2028 Transmission Deteriorated Pole Replacement forecasts.

c. SCE states that "SCE determined that using a 2021 and 2022 closed work order sample was the best representation of Transmission, Telecommunication, and Underbuild base unit costs, as a single year would not be an accurate representation of future costs." Explain in detail whether and how SCE used a 2021 and 2022 work order sample to estimate 2023-2028 Transmission Deteriorated Pole Replacement forecasts. Provide SCE's calculation and the basis that can verify its forecast methodology.

d. SCE states that "SCE determined that using a 2021 and 2022 closed work order sample was the best representation of Transmission, Telecommunication, and Underbuild base unit costs, as a single year would not be an accurate representation of future costs." Provide documentation such as management decisions and guidelines, and an explanation on how using a 2021 and 2022 closed work order sample is the most "accurate representation of future costs" rather than using five-year, four-year, or three-year work order samples.

e. Provide a last 10 year historical (2013-2022) recorded closed work order sample and associated costs (in $) data for Transmission Deteriorated Pole Replacement program.

| GRC Volume* | GRC Activity | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| 9 - Poles | Transmission Deteriorated I | $77,014,537 | $88,765,790 | $89,443,016 | $90,032,593 | $110,145,097 |

| GRC Volume* | GRC Activity | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|---|
| 9 - Poles | Transmission Deteriorated I | $88,689,555 | $103,046,815 | $88,473,862 | $88,830,130 | $89,823,821 | $91,169,486 |

**Response to Question 01.a-e:**

**01.a.**

Please see attachment "Response to PubAdv-SCE-117-RA6 1.a.xlsx" for step-by-step calculation of SCE's Transmission Deteriorated Pole Replacement forecast. The first two tabs titled "Trans Pole Replacement Forecast" and "Trans Cost Forecast" are the excel version of WPSCE02V9 pp.61-64. The third tab titled "T Det Pole Step by Step" provides step by step calculation of SCE's Transmission Deteriorated Pole Replacement forecast. Further explanation on the bases for SCE's Transmission Deteriorated Pole forecast is below.

To establish a base unit cost, SCE aggregated all closed work orders in 2021 and Aug YTD 2022. The base unit cost was derived from the amalgamated data of PLP and Deteriorated pole replacements closed work orders. This cumulative sum of recorded expenses was divided by the total count of replaced poles ($136,269,035/4,138 = $32,931).

Once the base unit cost was confirmed from closed work orders, SCE incorporated adders into the base unit costs to account for anticipated impacts in subsequent years. These details, including the base unit cost and adders, are presented in Table V-6 on p. 27 of SCE-02 Vol. 9 Poles 2025 GRC Testimony. For a comprehensive explanation of these adders, please consult pp. 27-31 within SCE 02 Vol. 9 2025 GRC Testimony.

Secondly, SCE applied the established unit cost to the projected scope for each year from 2023 to 2028. This projection encompasses historical failure rates, potential efficiency improvements, project timelines, already identified scope, and other programmatic activities, all of which contribute to defining the scope. For a more in-depth understanding of how the scope is formulated and how the unit cost is applied, please refer to WPSCE02V9 pp. 56-64. Steel stub replacements are also part of the Transmission Deteriorated Pole Replacement forecast, please see WPSCE02V9 pp.67-68 for details on the Steel Stub Replacement forecast.

Lastly, accounting adjustments are included to reflect certain changes made to SCE's employee compensation program. Please refer to Exhibit SCE-06, Vol. 04.

**01.b.**

In addition to using poles identified, SCE also employed a comprehensive bottoms-up approach to forecast its pole replacements. SCE then applied the scope to the unit cost which was developed using closed work orders and other cost adders. This approach is explained in further detail in SCE-02, Volume 9 Section V.B.1 pp. 18-34.

**01.c.**

Please see SCE's response to question 1.a.

**01.d.**

Transmission Deteriorated Pole Replacement is an ongoing program and replacements are based on which poles fail inspection or need to be replaced in a specific time frame. Employing statistical methods is not the most effective forecast method for these replacements due to yearly scope variations. A more accurate estimate comes from using historical averages to project replacement scope and applying current unit costs. This approach considers scope variability and utilizes up-to-date costs for accurate estimation of the costs necessary to perform this required work.

SCE has applied a closed work order methodology in the 2021 GRC, where it’s full request was approved. Please see Decision 21-08-036 pp. 158-163 for details on the decision.

**01.e.**

Please see attachment PubAdv-SCE-117-RA6 1.e.xlsx for 2013-2022 closed work orders. Please note that for the 2025 GRC, SCE only used closed work orders through August 2022, as that was the most current detailed information available at that time.

Response to PubAdv-SCE-117-RA6 1.a

| Category | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | Step by step Calculation |
|---|---|---|---|---|---|---|---|
| Non-programmatic Driven Pole Replacement Total | 1,699 | 2,319 | 2,052 | 1,682 | 1,733 | 1,724 | Unit forecast based on (1) already identified pole replacements (2) Non-programmatic 2021 recorded historical identification rate applied to inspection. See Trans Pole Replacement Forecast tab for more details. |
| IPI Driven Pole Replacement Total | 479 | 255 | 41 | 406 | 361 | 372 | Unit forecast based on (1) already identified pole replacements (2) IPI inspection plan and 2021 historical failure rate. See Trans Pole Replacement Forecast tab for more details. |
| PLC Driven Pole Replacement Total | 101 | 30 | 82 | 106 | 99 | 99 | Unit forecast based on (1) already identified pole replacements (2) PLC 2021 recorded historical identification rate applied to inspection. See Trans Pole Replacement Forecast tab for more details. |
| Deteriorated Pole Replacement Total | 2,279 | 2,603 | 2,175 | 2,194 | 2,194 | 2,194 | Total number of Non-Programmatic, IPI, and PLC Pole Replacements (sum of rows 3-5) |
| Unit Cost Nominal $ | $ 38,530 | $ 39,120 | $ 39,823 | $ 39,591 | $ 40,036 | $ 40,655 | Cost per based on 2021-2022 closed work order sample and additional adders, please see SCE 02 Volume 9 Poles testimony Table V-6 and pp. 26-32. |
| **Deteriorated Pole Replacement Sub-Total (Nominal $)** | **$ 87,808,889** | **$ 101,830,482** | **$ 86,614,083** | **$ 86,863,386** | **$ 87,838,406** | **$ 89,198,113** | Total cost based on number of Deteroriated Pole Replacement Total (row 6) and Unit Cost (2022 Nominal $, row 7) |
| Employee Compensation Program | $ 775,290 | $ 1,109,240 | $ 1,757,882 | $ 1,864,199 | $ 1,881,728 | $ 1,866,079 | Adjustments to reflect certain changes made to SCE's employee compensation program. Please refer to Exhibit SCE-06, Vol. 04 |
| Total Steel Stub Cost (Nominal $) | $ 105,376 | $ 107,094 | $ 101,896 | $ 102,544 | $ 103,688 | $ 105,295 | For details on See Steel Stub replacement forecast, please refer to WPSCE02V9 pp.67-68 Steel Stub forecast. Total is based on historic failure rates applied to the 2021 unit cost. |
| **Total Deteriorated Pole Replacement Cost (Nominal $)** | **$ 88,689,555** | **$ 103,046,815** | **$ 88,473,861** | **$ 88,830,129** | **$ 89,823,822** | **$ 91,169,486** | Grand total of Transmission Deteriorated Pole Replacement activity (sum of rows 8-10). |

# Appendix B

# SCE 13 Volume 9 Poles Supporting Documentation

# Appendix B
# 2025 General Rate Case
# Index of Supporting Documents
# SCE-13 Vol. 09 – Poles

WP SCE-02 Vol. 09 Pole Replacement Forecast
Witness: Kim Davis

**Pole Replacement Scope - Distribution**

| Distribution | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|
| **Pole Loading Program (PLP) Driven** | | | | | | |
| Already Identified PLP Replacements[1] | 11,653 | 3,846 | 365 | - | - | - |
| Forecast Replacements[2] | 244 | 135 | - | - | - | - |
| PLP Replacements Subtotal | 11,897 | 3,981 | 365 | - | - | - |
| **Intrusive Pole Inspection (IPI) Driven** | | | | | | |
| Already Identified IPI Replacements[1] | 3,388 | 2,291 | 667 | - | - | - |
| Forecast Replacements[2] | 468 | 1,015 | 2,203 | 3,608 | 3,446 | 3,428 |
| IPI Replacements Subtotal | 3,856 | 3,306 | 2,870 | 3,608 | 3,446 | 3,428 |
| **Non-programmatic Driven** | | | | | | |
| Already Identified Non-programmatic Replacements[1] | 1,944 | 173 | 578 | - | - | - |
| Forecast Replacements[2] | 369 | 994 | 2,022 | 1,957 | 1,908 | 1871 |
| Non-programmatic Replacements Subtotal | 2,313 | 1,167 | 2,600 | 1,957 | 1,908 | 1,871 |
| **Pole Loading Calculation (PLC) Driven** | | | | | | |
| Already Identified PLC Replacements[1] | 395 | 147 | 11 | - | - | 0 |
| Forecast Replacements[2] | 60 | 262 | 536 | 520 | 507 | 497 |
| PLC Replacements Subtotal | 455 | 409 | 547 | 520 | 507 | 497 |
| **Total** | | | | | | |
| Already Identified Replacements[1] | 17,380 | 6,457 | 1,621 | - | - | - |
| Forecast Replacements[2] | 1,141 | 2,407 | 4,762 | 6,085 | 5,861 | 5,796 |
| **Replacements Subtotal** | **18,521** | **8,864** | **6,383** | **6,085** | **5,861** | **5,796** |

**Adjustments to Scope**

| | | | | | | |
|---|---|---|---|---|---|---|
| Efficiency Opportunity Reduction[3] | (4,103) | (2,752) | (2,396) | (1,555) | (1,477) | (1,604) |
| Constrained Poles from Previous Years[4] | 1,168 | 2,338 | 845 | 387 | 393 | 382 |
| **Replacement Subtotal Including Efficiency Opportunity Reduction and Constrained from Previous Year Poles** | 15,586 | 8,449 | 4,832 | 4,917 | 4,778 | 4,574 |
| Constraint Rate[5] | 15% | 10% | 8% | 8% | 8% | 8% |
| Constrained Poles[6] | (2,338) | (845) | (387) | (393) | (382) | (366) |
| **Replacement Subtotal with Constraints** | 13,248 | 7,604 | 4,445 | 4,523 | 4,396 | 4,208 |
| Efficiency Opportunity[7] | 2,752 | 2,396 | 1,555 | 1,477 | 1,604 | 1792 |
| **Replacement Forecast Total** | **16,000** | **10,000** | **6,000** | **6,000** | **6,000** | **6,000** |

WP SCE-02 Vol. 09 Pole Replacement Forecast
Witness: Kim Davis

**Pole Replacement Scope - Distribution**

**Breakdown of Scope by Program Type**

| | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|
| PLP Ratio[8] | 64% | 45% | 6% | 0% | 0% | 0% |
| IPI Ratio[9] | 21% | 37% | 45% | 59% | 59% | 59% |
| Non-programmatic Ratio[10] | 12% | 13% | 41% | 32% | 33% | 32% |
| PLC Ratio[11] | 2% | 5% | 9% | 9% | 9% | 9% |
| | | | | | | |
| PLP Subtotal | 11,897 | 3,981 | 365 | - | - | - |
| PLP Constrained Poles[12] | (1,504) | (385) | (23) | - | - | - |
| PLP Constrained Poles from Previous Years[13] | 750 | 1,050 | 48 | - | - | - |
| PLP Efficiency Opportunity[14] | 1,768 | 1,076 | 89 | - | - | - |
| PLP Efficiency Opportunity Reduction from Future Years[15] | (2,636) | (1,236) | (137) | - | - | - |
| **PLP Total** | **10,276** | **4,485** | **342** | **-** | **-** | **-** |
| **PLP Ratio after Adjustments to Scope** | **64%** | **45%** | **6%** | **0%** | **0%** | **0%** |
| | | | | | | |
| IPI Subtotal | 3,856 | 3,306 | 2,870 | 3,608 | 3,446 | 3,428 |
| IPI Constrained Poles[12] | (485) | (361) | (475) | (688) | (660) | (655) |
| IPI Constrained Poles from Previous Years[13] | 243 | 485 | 361 | 475 | 688 | 660 |
| IPI Efficiency Opportunity[14] | 573 | 894 | 699 | 876 | 943 | 1,060 |
| IPI Efficiency Opportunity Reduction from Future Years[15] | (854) | (573) | (894) | (699) | (876) | (943) |
| **IPI Total** | **3,333** | **3,750** | **2,562** | **3,573** | **3,542** | **3,549** |
| **IPI Ratio after Adjustments to Scope** | **21%** | **38%** | **43%** | **60%** | **59%** | **59%** |
| | | | | | | |
| Non-programmatic Subtotal | 2,313 | 1,167 | 2,600 | 1,957 | 1,908 | 1,871 |
| Non-programmatic Constrained Poles[12] | (292) | (129) | (471) | (353) | (369) | (360) |
| Non-programmatic Constrained Poles from Previous Years[13] | 146 | 292 | 129 | 471 | 353 | 369 |
| Non-programmatic Efficiency Opportunity[14] | 344 | 316 | 633 | 475 | 522 | 578 |
| Non-programmatic Efficiency Opportunity Reduction from Future Years[15] | (512) | (344) | (316) | (633) | (475) | (522) |
| **Non-Programmatic Total** | **1,998** | **1,302** | **2,576** | **1,916** | **1,939** | **1,936** |
| **Nonprogrammatic Ratio after Adjustments to Scope** | **12%** | **13%** | **43%** | **32%** | **32%** | **32%** |
| | | | | | | |
| PLC Subtotal | 455 | 409 | 547 | 520 | 507 | 497 |
| PLC Constrained Poles[12] | (57) | (46) | (96) | (98) | (98) | (95) |
| PLC Constrained Poles from Previous Years[13] | 29 | 57 | 46 | 96 | 98 | 98 |
| PLC Efficiency Opportunity[14] | 68 | 111 | 133 | 126 | 139 | 154 |
| PLC Efficiency Opportunity Reduction from Future Years[15] | (101) | (68) | (111) | (133) | (126) | (139) |
| **PLC Total** | **393** | **463** | **520** | **511.261** | **519** | **515** |
| **PLC Ratio after Adjustments to Scope** | **2%** | **5%** | **9%** | **9%** | **9%** | **9%** |
| | | | | | | |
| Total Subtotal | 18,521 | 8,864 | 6,383 | 6,085 | 5,861 | 5,796 |
| Total Constrained Poles[12] | (2,338) | (922) | (1,066) | (1,139) | (1,127) | (1,111) |
| Total Constrained Poles from Previous Years[13] | 1,168 | 1,884 | 585 | 1,042 | 1,139 | 1,127 |
| Total Efficiency Opportunity[14] | 2,752 | 2,396 | 1,555 | 1,477 | 1,604 | 1,792 |
| Total Efficiency Opportunity Reduction from Future Years[15] | (4,103) | (2,220) | (1,457) | (1,466) | (1,477) | (1,604) |
| **Total** | **16,000** | **10,000** | **6,000** | **6,000** | **6,000** | **6,000** |

WP SCE-02 Vol. 09 Pole Replacement Forecast
Witness: Kim Davis

**Pole Replacement Scope - Distribution**

| |
|---|
| Note 1: Pole replacements already identified during previous pole loading assessments, intrusive pole inspections, pole loading calculation failures, and non-programmatic activities shown in the year of their compliance due date. |
| Note 2: Forecast of distribution pole replacements that will be identified through future intrusive pole inspections, pole loading calculation failures, and non-programmatic activities shown in the year of their compliance due date. |
| Note 3: Poles that are reduced since they were brought forward to an earlier year to support bundling efforts. For example, in 2023 there are 2,752 efficiency poles that are forecast (see cell B32 and footnote 7 for more details). As a result, a reduction of 2,752 poles is forecast for 2024. |
| Note 4: Poles that are shown the next year based on the constrained poles forecast in the previous year. For example, in 2023 there are 2,338 constrained poles forecast (see cell B30 and footnote 7 for more details). As a result, an increase of 2,338 poles is forecast to be completed in 2024. |
| Note 5: The percent of poles due but not completed based on various constraints such as environmental/agency holds, permits, and customer issues. See footnote 8. |
| Note 6: The number of poles due but not completed based on various constraints such as environmental/agency holds, permits, and customer issues. Also, see footnote 5. |
| Note 7: Poles forecast to be replaced prior to their scheduled year and bundled with other work in the current year to achieve efficiencies and minimize customer impacts such as outages and traffic disruptions. |
| Note 8: The percentage of PLP related pole replacements divided by the overall total replacements before constraints and efficiency opportunity poles have been applied. For example, in 2023, 11,897/18,521=64%. This ratio is used to develop totals by program. |
| Note 9: The percentage of IPI related pole replacements divided by the overall total replacements before constrained and efficiency opportunity poles have been applied. For example, in 2023, 3,856/18,521=21%. This ratio is used to develop totals by program. |
| Note 10: The percentage of non-programmatic related pole replacements divided by the overall total replacements before constrained and efficiency opportunity poles have been applied. For 2023, 2,313/18,521=12%. This ratio is used to develop totals by program. |
| Note 11: The percentage of PLC related pole replacements based on the overall total replacements before constrained and efficiency opportunity poles have been applied. For 2023, 455/18,521=2%. This ratio is used to develop totals by program. |
| Note 12: Constrained poles for that specific program based on the total number of constrained poles and its percentage of pole replacements. For example, the 2023 PLP constrained unit count is derived from (2,338)x64%=(292). |
| Note 13: Poles that roll over to the next year based on the constrained poles forecast in the previous year. |
| Note 14: Efficiency opportunity poles for that specific program based on the total number of efficiency opportunity poles and its percentage of pole replacements. |
| Note 15: Poles that are reduced in that current year since they were brought forward as an efficiency opportunity to the prior year to support bunding efforts. |

WP SCE-02 Vol. 09 Pole Replacement Forecast
Witness: Kim Davis

**Distribution Pole Replacement Forecast**

**PLP Replacement Forecast - Distribution**

| Category - PLP | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|
| Replacement Total | 10,276 | 4,485 | 342 | - | - | - |
| Unit Cost 2022 Nominal $ | $ 27,500 | $ 29,170 | $ 29,914 | $ 29,814 | $ 30,022 | $ 30,459 |
| **PLP Replacement Sub-Total (2022 Nominal $)** | **$ 282,588,367** | **$ 130,827,717** | **$ 10,230,581** | **$ -** | **$ -** | **$ -** |
| Employee Compensation Program[1] | $ 1,920,333 | $ 1,670,744 | $ 1,141,544 | $ - | $ - | $ - |
| **Total PLP Replacement Cost (2022 Nominal $)** | **$ 284,508,700** | **$ 132,498,460** | **$ 11,372,124** | **$ -** | **$ -** | **$ -** |

**Deteriorated Pole Replacement Forecast - Distribution**

| Category - Deteriorated Pole Replacement | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|
| Non-programmatic Driven Pole Replacement Total | 1,998 | 1,302 | 2,576 | 1,916 | 1,939 | 1,936 |
| IPI Driven Pole Replacement Total | 3,333 | 3,750 | 2,562 | 3,573 | 3,542 | 3,549 |
| PLC Driven Pole Replacement Total | 393 | 463 | 520 | 511 | 519 | 515 |
| Deteriorated Pole Replacement Total | 5,724 | 5,515 | 5,658 | 6,000 | 6,000 | 6,000 |
| Unit Cost 2022 Nominal $ | $ 27,500 | $ 29,170 | $ 29,914 | $ 29,814 | $ 30,022 | $ 30,459 |
| **Deteriorated Pole Replacement Sub-Total (2022 Nominal $)** | **$ 157,409,090** | **$ 160,872,878** | **$ 169,253,289** | **$ 178,883,616** | **$ 180,134,388** | **$ 182,755,884** |
| Employee Compensation Program[1] | $ 1,264,015 | $ 1,731,492 | $ 2,681,596 | $ 2,766,924 | $ 2,787,917 | $ 2,977,947 |
| **Total Deteriorated Pole Replacement Cost (Nominal $)** | **$ 158,673,105** | **$ 162,604,369** | **$ 171,934,885** | **$ 181,650,540** | **$ 182,922,305** | **$ 185,733,831** |

**Underbuild Cost Forecast - See WP SCE-02 Vol. 09, Underbuild Forecast**

| Category - Underbuild | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|
| **Total Underbuild Cost (2022 Nominal $)** | **$ 18,202,230** | **$ 19,123,902** | **$ 14,461,494** | **$ 14,562,210** | **$ 14,664,030** | **$ 14,877,436** |

**Distribution Steel Stub Cost Forecast - See WP SCE-02 Vol. 09, Steel Stub Forecast**

| Category - Distribution Steel Stub | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|
| **Total Steel Stub Cost (Nominal $)** | **$ 534,169** | **$ 556,328** | **$ 519,092** | **$ 517,806** | **$ 522,446** | **$ 539,368** |

**Distribution Capital Pole Replacement Forecast**

| | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|
| **Total Distribution Cost (Nominal $)** | **$ 461,918,204** | **$ 314,783,060** | **$ 198,287,596** | **$ 196,730,556** | **$ 198,108,782** | **$ 201,150,635** |

Note 1: The forecast incorporates accounting adjustments to reflect certain changes made to SCE's employee compensation program. Please refer to Exhibit SCE-06, Vol. 04

WP SCE-02 Vol. 09 Pole Replacement Forecast
Witness: Kim Davis

**Pole Replacement Scope - Transmission**

| Transmission | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|
| **Pole Loading Program (PLP) Driven** | | | | | | |
| Already Identified PLP Replacements[1] | 521 | 321 | 26 | - | - | - |
| Forecast Replacements[2] | 21 | 1 | - | - | - | - |
| PLP Telecommunication Forecast Replacements[3] | 3 | 7 | - | - | - | - |
| PLP Replacements Subtotal | 545 | 329 | 26 | - | - | |
| **Intrusive Pole Inspection (IPI) Driven** | | | | | | |
| Already Identified IPI Replacements[1] | 323 | 157 | 25 | - | - | - |
| Already Identified IPI Telecommunication Replacements[4] | 0 | 0 | 0 | 0 | 0 | - |
| IPI Forecast Replacements[2] | 46 | 142 | 190 | 317 | 304 | 304 |
| IPI Telecommunication Forecast Replacements[5] | 24 | 17 | 4 | 6 | 6 | 6 |
| IPI Replacements Subtotal | 393 | 316 | 219 | 323 | 310 | 310 |
| **Non-programmatic Driven** | | | | | | |
| Already Identified Non-programmatic Replacements[1] | 1,030 | 1,478 | 838 | - | - | - |
| Forecast Replacements[2] | 299 | 414 | 1,587 | 1,515 | 1,462 | 1430 |
| Non-programmatic Replacements Subtotal | 1,329 | 1,892 | 2,425 | 1,515 | 1,462 | 1,430 |
| **Pole Loading Calculation (PLC) Driven** | | | | | | |
| Already Identified PLC Replacements[1] | 65 | 28 | - | - | - | - |
| Forecast Replacements[2] | 14 | 39 | 92 | 87 | 84 | 82 |
| PLC Replacements Subtotal | 79 | 67 | 92 | 87 | 84 | 82 |
| **Total** | | | | | | |
| Already Identified Replacements[1] | 1,939 | 1,984 | 889 | - | - | - |
| Forecast Replacements[2] | 380 | 595 | 1,869 | 1,918 | 1,850 | 1,817 |
| Already Identified Telecommunication Replacements | - | - | - | - | - | - |
| Telecommunication Forecast | 27 | 24 | 4 | 6 | 6 | 6 |
| **Replacements Subtotal** | **2,345** | **2,604** | **2,762** | **1,925** | **1,856** | **1,823** |

**Adjustments to Scope**

| | | | | | | |
|---|---|---|---|---|---|---|
| Efficiency Opportunity Reduction[6] | (145) | (1,119) | (1,282) | (538) | (745) | (1,002) |
| Constrained Poles from Previous Years[7] | 650 | 969 | 736 | 554 | 485 | 399 |
| **Replacement Subtotal Including Efficiency Opportunity Reduction and Constrained from Previous Year Poles** | 2,850 | 2,454 | 2,216 | 1,940 | 1,597 | 1,219 |
| Constraint Rate[8] | 34% | 30% | 25% | 25% | 25% | 25% |
| Constrained Poles[9] | (969) | (736) | (554) | (485) | (399) | (305) |
| **Replacement Subtotal with Constraints** | 1,881 | 1,718 | 1,662 | 1,455 | 1,198 | 914 |
| Efficiency Opportunity[10] | 1,119 | 1,282 | 538 | 745 | 1,002 | 1286 |
| **Replacement Forecast Total** | **3,000** | **3,000** | **2,200** | **2,200** | **2,200** | **2,200** |

WP SCE-02 Vol. 09 Pole Replacement Forecast
Witness: Kim Davis

**Pole Replacement Scope - Transmission**

**Breakdown of Scope by Program Type**

| | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|
| PLP Ratio[11] | 23% | 13% | 1% | 0% | 0% | 0% |
| IPI Ratio[12] | 17% | 12% | 8% | 17% | 17% | 17% |
| Non-programmatic Ratio[13] | 57% | 73% | 88% | 79% | 79% | 78% |
| PLC Ratio[14] | 3% | 3% | 3% | 5% | 5% | 4% |
| | | | | | | |
| PLP Subtotal | 545 | 329 | 26 | - | - | - |
| PLP Constrained Poles[15] | (225) | (93) | (5) | - | - | - |
| PLP Constrained Poles from Previous Years[16] | 151 | 122 | 7 | - | - | - |
| PLP Efficiency Opportunity[17] | 260 | 162 | 5 | - | - | - |
| PLP Efficiency Opportunity Reduction from Future Years[18] | (34) | (141) | (12) | - | - | - |
| PLP Telecommunication Total[19] | **3** | **8** | **-** | **-** | **-** | **-** |
| **PLP Total** | 694 | 372 | 21 | - | - | - |
| **PLP Ratio after Adjustments to Scope** | **23%** | **12%** | **1%** | **0%** | **0%** | **0%** |
| | | | | | | |
| IPI Subtotal | 393 | 316 | 219 | 323 | 310 | 310 |
| IPI Constrained Poles[15] | (162) | (129) | (119) | (86) | (67) | (52) |
| IPI Constrained Poles from Previous Years[16] | 109 | 117 | 58 | 93 | 81 | 68 |
| IPI Efficiency Opportunity[17] | 187 | 155 | 43 | 125 | 168 | 219 |
| IPI Efficiency Opportunity Reduction from Future Years[18] | (24) | (187) | (155) | (43) | (125) | (168) |
| IPI Telecommunication Total[20] | 24 | 17 | 4 | 6 | 6 | 6 |
| **IPI Total** | **479** | **255** | **41** | **406** | **361** | **372** |
| **IPI Ratio after Adjustments to Scope** | **16%** | **8%** | **2%** | **18%** | **16%** | **17%** |
| | | | | | | |
| Non-programmatic Subtotal | 1,329 | 1,892 | 2,425 | 1,515 | 1,462 | 1,430 |
| Non-programmatic Constrained Poles[15] | (549) | (575) | (561) | (382) | (314) | (239) |
| Non-programmatic Constrained Poles from Previous Years[16] | 368 | 704 | 647 | 436 | 382 | 313 |
| Non-programmatic Efficiency Opportunity[17] | 634 | 932 | 473 | 586 | 790 | 1,009 |
| Non-programmatic Efficiency Opportunity Reduction from Future Years[18] | (82) | (634) | (932) | (473) | (586) | (790) |
| **Non-Programmatic Total** | **1,699** | **2,319** | **2,052** | **1,682** | **1,733** | **1,724** |
| **Nonprogrammatic Ratio after Adjustments to Scope** | **72%** | **89%** | **74%** | **87%** | **93%** | **95%** |
| | | | | | | |
| PLC Subtotal | 79 | 67 | 92 | 87 | 84 | 82 |
| PLC Constrained Poles[15] | (33) | (58) | (18) | (22) | (18) | (14) |
| PLC Constrained Poles from Previous Years[16] | 22 | 25 | 24 | 25 | 22 | 18 |
| PLC Efficiency Opportunity[17] | 38 | 33 | 18 | 34 | 45 | 58 |
| PLC Efficiency Opportunity Reduction from Future Years[18] | (5) | (38) | (33) | (18) | (34) | (45) |
| **PLC Total** | 101 | 30 | 82 | 106 | 99 | 99 |
| **PLC Ratio after Adjustments to Scope** | **3%** | **1%** | **4%** | **5%** | **5%** | **4%** |
| | | | | | | |
| Total Subtotal | 2,345 | 2,604 | 2,762 | 1,925 | 1,856 | 1,823 |
| Total Constrained Poles[15] | (969) | (855) | (704) | (490) | (399) | (305) |
| Total Constrained Poles from Previous Years[16] | 650 | 969 | 736 | 554 | 485 | 399 |
| Total Efficiency Opportunity[17] | 1,119 | 1,282 | 538 | 745 | 1,002 | 1,286 |
| Total Efficiency Opportunity Reduction from Future Years[18] | (145) | (1,000) | (1,132) | (533) | (745) | (1,002) |
| Total Telecommunication Total | 27 | 25 | 4 | 6 | 6 | 6 |
| **Total** | **3,000** | **3,000** | **2,200** | **2,200** | **2,200** | **2,200** |

WP SCE-02 Vol. 09 Pole Replacement Forecast
Witness: Kim Davis

**Pole Replacement Scope - Transmission**

| |
|---|
| Note 1: Pole replacements already identified during previous pole loading assessments, intrusive pole inspections, pole loading calculation failures, and non-programmatic activities shown in the year of their compliance due date. |
| Note 2: Forecast of transmission pole replacements that will be identified through future intrusive pole inspections, pole loading calculation failures, and non-programmatic activities shown in the year of their compliance due date. |
| Note 3: Forecast of telecommunication pole replacements that has been planned based on their compliance due date. |
| Note 4: Telecommunication pole replacements already identified during previous intrusive pole inspection and that has been planned based on their compliance due date. |
| Note 5: Telecommunication pole replacement forecast that will be identified through intrusive pole inspections and that has been planned based on their compliance due date. |
| Note 6: Poles that are reduced since they were brought forward to an earlier year to support bundling efforts. For example, in 2023 there are 1,119 efficiency poles that are forecast (see cell B37 and footnote 10 for more details). As a result, a reduction of 1,119 poles is forecast for 2024. |
| Note 7: Poles that are shown the next year based on the constrained poles forecast in the previous year. For example, in 2023 there are 969 constrained poles forecast (see cell B35 and footnote 9 for more details). As a result, an increase of 969 poles is forecast to be completed in 2024. |
| Note 8: The percent of poles due but not completed based on various constraints such as environmental/agency holds, permits, and customer issues. See footnote 9. |
| Note 9: The number of poles due but not completed based on various constraints such as environmental/agency holds, permits, and customer issues. See footnote 8. |
| Note 10: Poles forecast to be replaced prior to their scheduled year and bundled with other work in the current year to achieve efficiencies and minimize customer impacts such as outages and traffic disruptions. |
| Note 11: The percentage of PLP related pole replacements divided by the overall total replacements before constrained and efficiency opportunity poles have been applied. For example, in 2023, 545/2,345=23%. This ratio is used to develop totals by program. |
| Note 12: The percentage of IPI related pole replacements divided by the overall total replacements before constrained and efficiency opportunity poles have been applied. For example, in 2023, 393/2,345=17%. This ratio is used to develop totals by program. |
| Note 13: The percentage of non-programmatic related pole replacements divided by the overall total replacements before constrained and efficiency opportunity poles have been applied. For 2023, 1,329/2,345=57%. This ratio is used to develop totals by program. |
| Note 14: The percentage of PLC related pole replacements based on the overall total replacements before constraints and efficiency opportunity poles have been applied. For 2023, 79/2,345=3%. This ratio is used to develop totals by program. |
| Note 15: Constrained poles for that specific program based on the total number of constrained poles and its percentage of pole replacements. |
| Note 16: Poles that roll over to the next year based on the constrained poles forecast in the previous year. |
| Note 17: Efficiency opportunity poles for that specific program based on the total number of efficiency opportunity poles and its percentage of pole replacements. |
| Note 18: Poles that are reduced in that current year since they were brought forward as an efficiency opportunity to the prior year to support bunding efforts. |

WP SCE-02 Vol. 09 Pole Replacement Forecast
Witness: Kim Davis

**Transmission Pole Replacement Forecast**

**PLP Replacement Forecast - Transmission**

| Category - Transmission | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|
| PLP Replacement Forecast Total | 694 | 372 | 21 | - | - | - |
| Unit Cost 2022 Nominal $ | $ 38,530 | $ 39,120 | $ 39,823 | $ 39,591 | $ 40,036 | $ 40,655 |
| **PLP Replacement Sub-Total (2022 Nominal $)** | **$ 26,739,521** | **$ 14,552,800** | **$ 836,274** | **$ -** | **$ -** | **$ -** |
| Employee Compensation Program[1] | $ 240,720 | $ 272,126 | $ 319,753 | **$ -** | **$ -** | **$ -** |
| **Total PLP Replacement Cost (2022 Nominal $)** | **$ 26,980,242** | **$ 14,824,927** | **$ 1,156,027** | **$ -** | **$ -** | **$ -** |

**Deteriorated Pole Replacement Forecast - Transmission**

| Category | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|
| Non-programmatic Driven Pole Replacement Total | 1,699 | 2,319 | 2,052 | 1,682 | 1,733 | 1,724 |
| IPI Driven Pole Replacement Total | 479 | 255 | 41 | 406 | 361 | 372 |
| PLC Driven Pole Replacement Total | 101 | 30 | 82 | 106 | 99 | 99 |
| Deteriorated Pole Replacement Total | 2,279 | 2,603 | 2,175 | 2,194 | 2,194 | 2,194 |
| Unit Cost 2022 Nominal $ | $ 38,530 | $ 39,120 | $ 39,823 | $ 39,591 | $ 40,036 | $ 40,655 |
| **Deteriorated Pole Replacement Sub-Total (2022 Nominal $)** | **$ 87,808,889** | **$ 101,830,482** | **$ 86,614,083** | **$ 86,863,386** | **$ 87,838,406** | **$ 89,198,113** |
| Employee Compensation Program[1] | $ 775,290 | $ 1,109,240 | $ 1,757,882 | $ 1,864,199 | $ 1,881,728 | $ 1,866,079 |
| **Total Deteriorated Pole Replacement Cost (2022 Nominal $)** | **$ 88,584,179** | **$ 102,939,721** | **$ 88,371,965** | **$ 88,727,585** | **$ 89,720,134** | **$ 91,064,191** |

**PLP Replacement Forecast - Telecommunication**

| | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|
| PLP Telecommunication Replacement Forecast Total | 3 | 7 | - | - | - | - |
| Unit Cost 2022 Nominal $ | $ 20,355 | $ 20,667 | $ 20,790 | $ 20,920 | $ 21,155 | $ 21,482 |
| **PLP Telecommunication Sub-Total (2022 Nominal $)** | **$ 61,064** | **$ 144,671** | **$ -** | **$ -** | **$ -** | **$ -** |

**Deteriorated Pole Replacement Forecast - Telecommunication**

| Category | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|
| IPI Driven Pole Replacement Total | 24 | 17 | 4 | 6 | 6 | 6 |
| Unit Cost 2022 Nominal $ | $ 20,355 | $ 20,667 | $ 20,790 | $ 20,920 | $ 21,155 | $ 21,482 |
| **Total Deteriorated Pole Telecommunication Cost (2022 Nominal $)** | **$ 488,513** | **$ 351,344** | **$ 83,158** | **$ 125,520** | **$ 126,929** | **$ 128,894** |
| Employee Compensation Program | $ 3,017 | $ 3,786 | $ 4,346 | $ 5,017 | $ 5,079 | $ 5,014 |
| **Total Deteriorated Pole Telecommunication Cost (2022 Nominal $)** | **$ 491,529** | **$ 355,130** | **$ 87,505** | **$ 130,537** | **$ 132,008** | **$ 133,908** |

**Transmission Steel Stub Cost Forecast - See WP SCE-02 Vol. 09, Steel Stub Forecast**

| Category - Transmission Steel Stub | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|
| **Total Steel Stub Cost (Nominal $)** | **$ 105,376** | **$ 107,094** | **$ 101,896** | **$ 102,544** | **$ 103,688** | **$ 105,295** |

**Transmission Capital Pole Replacement Forecast**

| | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|
| **Total Transmission Cost (2022 Nominal $)** | **$ 116,222,390** | **$ 118,371,544** | **$ 89,717,393** | **$ 88,960,666** | **$ 89,955,830** | **$ 91,303,394** |

Note 1: The forecast incorporates accounting adjustments to reflect certain changes made to SCE's employee compensation program. Please refer to Exhibit SCE-06, Vol. 04