PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3298



May 25, 2023 TA2023-1055

Melvin Stark
Principal Manager, T&D Compliance Integration
Southern California Edison
1 Innovation Way
Pomona, CA 91786

Subject: Transmission Audit of Southern California Edison's Metro East Grid

Mr. Stark:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Eric Ujiiye of my staff conducted an electric transmission audit of Southern California Edison's (SCE) Metro East Grid from April 17, 2023 to April 21, 2023. The audit included a review of SCE's records and field inspections of SCE's facilities.

During the audit, my staff identified violations of one or more General Orders (GOs). A copy of the audit findings itemizing the violations is enclosed. Please advise me no later than June 26, 2023, by electronic or hard copy, of all corrective measures taken by SCE to remedy and prevent the recurrence of such violations.

If you have any questions concerning this audit, you can contact Eric Ujiiye at (213) 620-2598 or eric.ujiiye@cpuc.ca.gov.

Sincerely,

Fadi Daye, P.E.

Program and Project Supervisor Electric Safety and Reliability Branch Safety and Enforcement Division California Public Utilities Commission

Enclosures: Audit Findings

Cc: Leslie Palmer, Director, Safety and Enforcement Division, CPUC

Nika Kjensli, Program Manager, ESRB, CPUC Eric Ujiiye, Utilities Engineer, ESRB, CPUC

AUDIT FINDINGS

I. Records Review

During the audit, my staff reviewed the following records:

- Circuit facility inspection records.
- Completed and pending corrective action work orders.
- Pole loading calculations.
- Tower Structure Analysis Records
- Safety hazard notifications.
- Intrusive test records
- SCE's documented inspection program.

II. Records Review – Violations List

My staff observed the following violations during the records review portion of the audit:

GO 165, Section IV, Transmission Facilities, states in part:

Each utility shall prepare and follow procedures for conducting inspections and maintenance activities for transmission lines.

GO 95, Rule 31.2, Inspection of Lines, states in part:

Lines shall be inspected frequently and thoroughly for the purpose of insuring that they are in good condition so as to conform with these rules.

SCE's inspection records indicated that from 2016 to 2022, SCE performed 5 underground detailed inspections past SCE's assigned inspection due dates.

III. Field Inspections

My staff inspected the following facilities during the field inspection:

| No. | Structure ID | Circuit | Structure | Location |
|-----|-----------------------|--|-------------|---------------------|
| 1 | 7028297 | Mesa-Vincent and Rio Hondo-Vincent No. | Tower | Duarte |
| | (M27/T4) | 2 | | |
| 2 | M54 / T3 | Rio Hondo-Vincent No. 1 | Tower | Duarte |
| 3 | M55 / T1 | Rio Hondo-Vincent No. 1 | Tower | Duarte |
| 4 | 7028298 (M28 / P1) | Mesa-Vincent and Rio Hondo-Vincent No. 2 | Pole | Duarte |
| 5 | M55 / T1A | Rio Hondo-Vincent No. 1 | Tower | Duarte |
| 6 | M55 / T2 | Rio Hondo-Vincent No. 1 | Tower | Duarte |
| 7 | 7028299 | Mesa-Vincent and Rio Hondo-Vincent No. | Pole | Duarte |
| 7 | (M28 / P2) | 2 | | |
| 8 | 1567359E | Rio Hondo-Dalton-Finance-Lark Ellen | Pole | Irwindale |
| 9 | 1567358E | Rio Hondo-Dalton-Finance-Lark Ellen | Pole | Irwindale |
| 10 | 4864754E | Rio Hondo-Dalton-Finance-Lark Ellen | Pole | Irwindale |
| 11 | 1567357E | Rio Hondo-Dalton-Finance-Lark Ellen | Pole | Irwindale |
| 12 | 1567356E | Rio Hondo-Dalton-Finance-Lark Ellen | Pole | Irwindale |
| 13 | 1567355E | Rio Hondo-Dalton-Finance-Lark Ellen | Pole | Irwindale |
| 14 | 1557947E | Rio Hondo-Aero Jet-Azusa-Brew | Pole | Irwindale |
| 15 | 1557948E | Rio Hondo-Aero Jet-Azusa-Brew | Pole | Irwindale |
| 16 | 1557949E | Rio Hondo-Aero Jet-Azusa-Brew | Pole | Irwindale |
| 17 | 1557950E | Rio Hondo-Aero Jet-Azusa-Brew | Pole | Irwindale |
| 18 | 1508761E | Rio Hondo-Aero Jet-Azusa-Brew | Pole | Irwindale |
| 19 | 1508762E | Rio Hondo-Aero Jet-Azusa-Brew | Pole | Irwindale |
| 20 | 1508763E | Rio Hondo-Aero Jet-Azusa-Brew | Pole | Irwindale |
| 2.1 | 7027146 | Chino-Mira Loma No.1, Chino-Mira Loma | Tower | Rancho |
| 21 | (M4/T2) | No. 2 | | Cucamonga |
| 22 | M228/T3N | Chino-Mira Loma No.1 | Tower | Rancho |
| | 7026145 | China Mira Lama Na 1 China Mira Lama | Tower Tower | Cucamonga Rancho |
| 23 | (M4/T1) | Chino-Mira Loma No.1, Chino-Mira Loma No. 2 | | Cucamonga |
| | 7009125 | 110. 2 | | Rancho |
| 24 | (M228/T4) | Chino-Mira Loma No.1 | | Cucamonga |
| | 7027144 | Chino-Mira Loma No.1, Chino-Mira Loma | | Rancho |
| 25 | (M3/T5) | No. 2 | Tower | Cucamonga |
| | (1013/13) | 110. 2 | | Rancho |
| 26 | M229/T1N | Chino-Mira Loma No.1 | Tower | Cucamonga |
| 27 | 7027143 | Chino-Mira Loma No.1, Chino-Mira Loma No. 2 | Tower | Rancho |
| 21 | | | | Cucamonga |
| 28 | M229/T2N | Chino-Mira Loma No.1 | Tower | Rancho |
| | | | | Cucamonga |
| 29 | 7027142 | Chino-Mira Loma No.1, Chino-Mira Loma | Tower | Rancho |
| | (M3/T3) | No. 2 | | Cucamonga |

| | I | | | |
|----|---------------------|---|-------|---------------------|
| 30 | M229/T3 | Chino-Mira Loma No.1 | Tower | Rancho Cucamonga |
| 31 | 7027141 (M3/T2) | Chino-Mira Loma No.1, Chino-Mira Loma No. 2 | Tower | Rancho Cucamonga |
| 32 | M229/T4N | Chino-Mira Loma No.1 | Tower | Rancho |
| | | Chino-Mira Loma No.1, Chino-Mira Loma | | Cucamonga Rancho |
| 33 | M3/T1 | No. 2 | Tower | Cucamonga |
| 34 | M229/T5N | Chino-Mira Loma No.1 | Tower | Rancho Cucamonga |
| 35 | M2/T5 | Chino-Mira Loma No.1, Chino-Mira Loma No. 2 | Tower | Rancho Cucamonga |
| 36 | M11/T6 | Padua-Rancho Vista No.2 | Tower | Upland |
| 37 | M11/T6 | Padua-Rancho Vista No.1 | Tower | Upland |
| 38 | M11/T5 | Padua-Rancho Vista No.2, Padua-Rancho Vista No. 1 | Tower | Upland |
| 39 | M11/T4 | Padua-Rancho Vista No.2, Padua-Rancho Vista No. 1 | Tower | Upland |
| 40 | M11/T3 | Padua-Rancho Vista No.2, Padua-Rancho Vista No. 1 | Tower | Upland |
| 41 | 7009524 (M11/T7) | Padua-Rancho Vista No.2 | Tower | Upland |
| 42 | 7009522 (M11/T7) | Padua-Rancho Vista No.1 | Tower | Upland |
| 43 | M12/T1 | Padua-Rancho Vista No.2, Padua-Rancho Vista No. 1 | Tower | Upland |
| 44 | 4461286E | Walnut-Hillgen-Industry-Mesa-Reno | Pole | City of Industry |
| 45 | 4461287E | Walnut-Hillgen-Industry-Mesa-Reno | Pole | City of Industry |
| 46 | 4461288E | Walnut-Hillgen-Industry-Mesa-Reno | Pole | City of Industry |
| 47 | 4461289E | Walnut-Hillgen-Industry-Mesa-Reno | Pole | City of Industry |
| 48 | M11/T8 | Walnut-Hillgen-Industry-Mesa-Reno | Tower | City of Industry |
| 49 | M11/T7 | Walnut-Hillgen-Industry-Mesa-Reno | Tower | City of Industry |
| 50 | M11/T6 | Walnut-Hillgen-Industry-Mesa-Reno | Tower | City of Industry |
| 51 | M11/T5 | Walnut-Hillgen-Industry-Mesa-Reno | Tower | City of Industry |
| 52 | 7028450 (M43/T2) | Mesa-Mira Loma | Tower | La Puente Hills |
| 53 | 7010620 (M8/T2) | Center-Linda, Mesa-Walnut | Tower | La Puente Hills |

| 54 | 7028452 (M44/T1) | Mesa-Mira Loma | Tower | La Puente Hills |
|----|---------------------|--|-------|--------------------|
| 55 | 7010619 (M8/T1) | Center-Linda, Mesa-Walnut | Tower | La Puente Hills |
| 56 | M8/T9 | Walnut-Hillgen-Industry-Mesa-Reno | Tower | La Puente Hills |
| 57 | 4607915E | Walnut-Hillgen-Industry-Mesa-Reno | Pole | La Puente Hills |
| 58 | M8/T7 | Mesa-Narrows | Tower | La Puente Hills |
| 59 | M8/T6 | Mesa-Narrows | Tower | La Puente Hills |
| 60 | 7014074 (M66/T1) | Mesa-Rio Hondo No.1, Mesa- Rio Hondo No. 2 | Tower | La Puente Hills |
| 61 | 7028410 (M39/T1) | Mesa-Vincent | Tower | La Puente Hills |
| 62 | 4327223E | Rio Hondo-Amador-Jose-Mesa | Pole | La Puente Hills |
| 63 | 4787845E | Rio Hondo-Amador-Jose-Mesa | Pole | La Puente Hills |
| 64 | M66/T1A | Mesa-Rio Hondo No.1, Mesa- Rio Hondo No. 2 | Tower | La Puente Hills |
| 65 | VT6001182 | Walnut-Nogales-Railroad No.2, Diamond Bar-Grand Crossing-Sopipe | Vault | Walnut |
| 66 | 4607921E | Walnut-Nogales-Railroad No.2, Diamond Bar-Grand Crossing-Sopipe | Pole | Walnut |
| 67 | VT6001181 | Walnut-Nogales-Railroad No.2, Diamond Bar-Grand Crossing-Sopipe | Vault | Walnut |
| 68 | VT6001180 | Walnut-Nogales-Railroad No.2, Diamond Bar-Grand Crossing-Sopipe | Vault | Walnut |
| 69 | VT6001178 | Walnut-Nogales-Railroad No.2, Diamond Bar-Grand Crossing-Sopipe | Vault | Walnut |
| 70 | VT600120481 | Mira Loma - Vincent | Vault | Chino |
| 71 | VT6001349 | Chino-Peyton-Soquel, Chino-Soquel | Vault | Chino |
| 72 | VT6001352 | Chino-Ganesha-Plastic | Vault | Chino |
| 73 | VT6001346 | Chino-Diamond Bar-Ganesha | Vault | Chino |
| 74 | 43210 (6001347) | Chino-Diamond Bar-Ganesha, Chino- Ganesha-Peyton | Vault | Chino |

IV. Field Inspection Violations List

My staff observed the following violations during the field inspections portion of the audit:

GO 95, Rule 31.1, Design Construction and Maintenance, states in part:

Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.

The following SCE transmission facilities were damaged and required maintenance:

- A leg of Tower M55/T1 of the Rio Hondo-Vincent No. 1 circuit was missing a nut and a bolt near the footing.
- A steel member near the base of Tower M229/T4N of the Chino-Mira Loma No.1 circuit was damaged.
- A footing attachment point of Tower M229/T1 of the Chino-Mira Loma No.1, Chino-Mira Loma No. 2 was buried.
- Two insulator bells and one insulator bell on another string of insulators supported on Tower M11/T6 of the Padua-Rancho Vista No.2 circuit were damaged.
- The base of Tower M11/T6 of the Padua-Rancho Vista No.1 circuit was covered in heavy vegetation, not allowing clear access to the base of the tower.
- A footing attachment point of Tower M11/T3 of the Padua-Rancho Vista No.2, Padua-Rancho Vista No. 1 was buried.
- A steel member near the base of Tower M11/T7 of the Walnut-Hillgen-Industry-Mesa-Reno circuit was damaged.

GO 95, Rule 61.6, Marking and Guarding, states in part:

All towers shall be equipped with signs designed to warn the public of the danger of climbing same. Additionally, such signs shall include a graphic depiction of the dangers of falling or electrocution associated with climbing the towers. Such signs shall be placed and arranged so that they may be read from the four corners of the tower.

The warning signs on each of the following SCE transmission towers and structures could not be read from all four corners of the tower or structures.

- Vegetation obstructed the warning sign attached to Tower 7028297 (M27/T4) from being seen from all four corners of the tower.
- The warning sign attached to Tower M54/T3 of the Rio Hondo-Vincent No. 1 circuit could not be seen from all four corners of the tower.