PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

December 29, 2023 EA2023-1093

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

Subject: Audit of Southern California Edison's Arrowhead District

Mr. Stark:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), James Miller and Sultan Tipu of my staff conducted an electric distribution audit of Southern California Edison's (SCE) Arrowhead District from September 25, 2023 to September 29, 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 January 29, 2024, by electronic or hard copy, of all corrective measures taken by SCE to remedy and prevent such violations. Please note that ESRB will be posting the audit report and your response to our audit on the CPUC website. If there is any information in your response that you would like us to consider as confidential, we request that in addition to your confidential response, you also provide us with a public or redacted version of your response that can be posted publicly on our website.

If you have any questions concerning this audit, you can contact James Miller at (213) 660- 8898 or James.Miller@cpuc.ca.gov.

Sincerely,

Fadi Daye

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: Lee Palmer, Director, Safety and Enforcement Division, CPUC
Nika Kjensli, Program Manager, ESRB, SED, CPUC
Majed Ibrahim, Senior Utilities Engineer (Supervisor), ESRB, SED, CPUC
James Miller, Utilities Engineer, ESRB, SED, CPUC
Sultan Tipu, Utilities Engineer, ESRB, SED, CPUC

AUDIT FINDINGS

I. Records Review

My staff reviewed the following records during the audit:

- Patrol & Detailed Inspection records.
- Late Inspections
- Work Orders Created from Inspections
- Repair Work Orders
- Intrusive Testing Records
- Third Party Notifications
- Vegetation Management Records
- Pole Loading Calculation Records

II. Records Review – Violations List

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

GO 165, Section III-B, Distribution Facilities, Standards for Inspection, states:

> *Each utility subject to this General Order shall conduct inspections of its distribution facilities, as necessary, to ensure reliable, high-quality, and safe operation, but in no case may the period between inspections (measured in years) exceed the time specified in Table 1.*

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

> *Lines shall be inspected frequently and thoroughly for the purpose of ensuring that they are in good condition so as to conform with these rules. Lines temporarily out of service shall be inspected and maintained in such condition as not to create a hazard.*

SCE's records indicated that from calendar year 2020 through August 2023, SCE completed 51 overhead detailed inspections and 6 above ground patrol inspections past SCE's scheduled due date.

GO 165, Section III-B, Distribution Facilities, Standards for Inspection, states:

> *Each utility subject to this General Order shall conduct inspections of its distribution facilities, as necessary, to ensure reliable, high-quality, and safe operation, but in no case may the period between inspections (measured in years) exceed the time specified in Table 1.*

GO 128, Rule 17.2, Inspection, states:

> *Systems shall be inspected by the operator frequently and thoroughly for the purpose of insuring that they are in good condition and in conformance with all applicable requirements these rules.*

SCE's records indicated that from calendar year 2020 through August 2023, SCE completed 20 underground inspections past SCE's scheduled due date.

GO 95, Rule 18-B1, Maintenance Programs, states in part:

> *Companies shall undertake corrective actions within the time periods stated for each of the priority levels set forth below. Scheduling of corrective actions within the time periods below may be based on additional factors, including the following factors, as appropriate …*

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

> *For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design, construction, or maintenance of communication or supply lines and equipment.*

SCE's records indicated that from September 2020 through August 2023, SCE completed 706 overhead work orders past SCE's due date for corrective action. Additionally, as of the date of the audit, SCE had 69 open overhead work orders that were past SCE's scheduled due date for corrective action.

GO 128, Rule 17.1, 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.*

SCE's records indicated that from September 2020 through August 2023, SCE completed 7 underground work orders past SCE's due date for corrective action. Additionally, as of the date of the audit, SCE had 10 open underground work orders that were past SCE's scheduled due date for corrective action.

III. Field Inspections

My staff inspected the following structures during the field inspection portion of the audit:

No.	Facility Identification	Facility Type	Location
1	4275445E	Pole	Rimforest
2	4566315E	Pole	Rimforest
3	4809931E	Pole	Rimforest
4	2276845E	Pole	Rimforest
5	4665591E	Pole	Rimforest
6	4809932E	Pole	Rimforest
7	GT135426	Pole	Rimforest
8	4954958E	Pole	Rimforest
9	1533933E	Pole	Rimforest
10	1533932E	Pole	Rimforest
11	4835827E	Pole	Rimforest
12	1354183E	Pole	Rimforest
13	1329475E	Pole	Rimforest
14	709864E	Pole	Rimforest
15	1178298E	Pole	Rimforest
16	4517076E	Pole	Gregory Lake
17	4003772E	Pole	Gregory Lake
18	4003771E	Pole	Gregory Lake
19	783406E	Pole	Gregory Lake
20	4003770E	Pole	Gregory Lake
21	4003769E	Pole	Gregory Lake
22	4003768E	Pole	Gregory Lake
23	801018E	Pole	Gregory Lake
24	4555087E	Pole	Cedarpines Park
25	2236080E	Pole	Cedarpines Park
26	4573588E	Pole	Cedarpines Park
27	2250664E	Pole	Cedarpines Park
28	2277218E	Pole	Cedarpines Park
29	4767790E	Pole	Cedarpines Park
30	4201745E	Pole	Cedarpines Park
31	4563374E	Pole	Cedarpines Park
32	4563373E	Pole	Cedarpines Park
33	4093121E	Pole	Cedarpines Park
34	4093120E	Pole	Cedarpines Park
35	4823953E	Pole	Cedarpines Park
36	2348181E	Pole	Cedarpines Park
37	474672E	Pole	Cedarpines Park
38	4621872E	Pole	Cedarpines Park

39	4621871E	Pole	Cedarpines Park
40	474669E	Pole	Cedarpines Park
41	1649545E	Pole	Cedarpines Park
42	474667E	Pole	Cedarpines Park
43	4201164E	Pole	Valley of Enchantment
44	4592167E	Pole	Valley of Enchantment
45	4830550E	Pole	Valley of Enchantment
46	4621013E	Pole	Valley of Enchantment
47	4201165E	Pole	Valley of Enchantment
48	1818587E	Pole	Valley of Enchantment
49	4669009E	Pole	Valley of Enchantment
50	4941676E	Pole	Valley of Enchantment
51	4572743E	Pole	Valley of Enchantment
52	F15913Y	Pole	Valley of Enchantment
53	4845063E	Pole	Valley of Enchantment
54	F8408Y	Pole	Valley of Enchantment
55	4852086E	Pole	Valley of Enchantment
56	4572740E	Pole	Valley of Enchantment
57	670384E	Pole	Valley of Enchantment
58	2007936E	Pole	Valley of Enchantment
59	655480E	Pole	Valley of Enchantment
60	569552E	Pole	Valley of Enchantment
61	4852088E	Pole	Valley of Enchantment
62	4857072E	Pole	Valley of Enchantment
63	495350E	Pole	Valley of Enchantment
64	1735320E	Pole	Valley of Enchantment
65	4572736E	Pole	Valley of Enchantment
66	4852084E	Pole	Valley of Enchantment
67	4842085E	Pole	Valley of Enchantment
68	4768140E	Pole	Valley of Enchantment
69	4620386E	Pole	Valley of Enchantment
70	4092847E	Pole	Green Valley
71	37490CIT	Pole	Green Valley
72	4562684E	Pole	Green Valley
73	872561E	Pole	Green Valley
74	4837614E	Pole	Green Valley
75	783355E	Pole	Green Valley
76	GIT37491E	Pole	Green Valley
77	1734792E	Pole	Green Valley
78	607353E	Pole	Green Valley
79	604818E	Pole	Green Valley
80	4565292E	Pole	Green Valley
81	4565692E	Pole	Green Valley

82	GIT37492E	Pole	Green Valley
83	4565291E	Pole	Green Valley
84	570244	Pole	Green Valley
85	872562E	Pole	Green Valley
86	CTC62995	Pole	Green Valley
87	30027-CIT	Pole	Green Valley
88	655496E	Pole	Green Valley
89	4565290E	Pole	Green Valley
90	783474E	Pole	Green Valley
91	783475E	Pole	Green Valley
92	1933765E	Pole	Green Valley
93	4565294E	Pole	Green Valley
94	783477E	Pole	Green Valley
95	783478E	Pole	Green Valley
96	4781398E	Pole	Green Valley
97	P5326987	Radio-controlled Interrupter	Lake Arrowhead
98	P5326988	Padmounted Switch	Lake Arrowhead
99	P5326989	Remote-activated Recloser	Lake Arrowhead
100	P5443156	Padmounted Transformer	Lake Arrowhead
101	P5326990	Remote-activated Recloser	Lake Arrowhead
102	P5326983	Padmounted Switch	Lake Arrowhead
103	P5321368	Padmounted Switch	Lake Arrowhead
104	P5630940	Padmounted Transformer	Lake Arrowhead
105	P5320899	Padmounted Transformer	Lake Arrowhead
106	P5320898	Padmounted Switch	Lake Arrowhead
107	P5320897	Padmounted Transformer	Lake Arrowhead
108	PME0457	Padmounted Switch	Lake Arrowhead
109	P5325150	Padmounted Transformer	Lake Arrowhead
110	B5014755	Gas Switch	Hamilton
111	5014756	BURD Transformer	Hamilton
112	5014766	Vault	Hamilton
113	1125684E	Pole	Running Springs
114	1125683E	Pole	Running Springs
115	2315419E	Pole	Running Springs
116	1125681E	Pole	Running Springs
117	1125680E	Pole	Running Springs
118	1056891E	Pole	Running Springs
119	1056890E	Pole	Running Springs
120	4555838E	Pole	Running Springs
121	1125685E	Pole	Running Springs
122	4875636E	Pole	Running Springs
123	1008975E	Pole	Running Springs
124	1008976E	Pole	Running Springs

125	1513768E	Pole	Lake Arrowhead
126	4228698E	Pole	Lake Arrowhead
127	1513770E	Pole	Lake Arrowhead
128	2315038E	Pole	Twin Peaks
129	4954120E	Pole	Twin Peaks
130	4954111E	Pole	Twin Peaks
131	P16634Y	Pole	Twin Peaks
132	4767786E	Pole	Twin Peaks
133	4875372E	Pole	Twin Peaks
134	F16631Y	Pole	Twin Peaks
135	4896341E	Pole	Twin Peaks
136	4856443E	Pole	Twin Peaks
137	4875373E	Pole	Twin Peaks
138	4517593E	Pole	Twin Peaks

IV. Field Inspection Violations List

My staff observed the following violations during the field inspection:

GO 95, Rule 56.2 Overhead Guys, Anchor Guys and Span Wires, Use, states in part:

> *Guys shall be attached to structures, as nearly as practicable, at the center of load. They shall be maintained taut and of such strength as to meet the safety factors of Rule 44 .*

The down guy wire on each of the following poles was not taut:

- 2276845E
- 4566315E
- 1178298E

GO 95, Rule 91.3 Stepping, B. Location of Steps, states in part:

> *The lowest step shall be not less than 8 feet from the ground line, or any easily climbable foreign structure from which one could reach or step. Above this point steps shall be placed, with spacing between steps on the same side of the pole not exceeding 36 inches, at least to that conductor level above which only circuits operated and maintained by one party remain. Steps or fixtures for temporary steps shall be installed as part of a pole restoration process. Steps shall be so placed that runs or risers do not interfere with the free use of the steps.*

The lowest pole step on Pole No. 1125680E was located at a height of less than eight feet.

GO 95, Rule 51.6, Marking and Guarding, High Voltage Marking of Poles, states in part:

> *Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. A pair of signs may be stacked to a height of no more than 12 inches. Such signs shall be of weather and corrosion–resisting material, solid or with letters cut out therefrom and clearly legible.*

"High Voltage" signs on each of the following poles were damaged:

- 4852086E
- 570244E

GO 95, Rule 34, Foreign Attachments, states in part:

> *Nothing in these rules shall be construed as permitting the unauthorized attachment, to supply, street light or communication poles or structures, of antennas, signs, posters, banners, decorations, wires, lighting fixtures, guys, ropes and any other such equipment foreign to the purposes of overhead electric line construction.*

An unauthorized “Neighborhood Watch” sign was attached to Pole No. 4809932E.

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.*

A pole step attached to Pole No. 2348181E was bent.

Damaged visibility strips were observed on each of the following poles:

- 2276845E
- 4835827E
- 37490CIT
- 872562E
- 1125683E
- 4555838E
- 1008975E

GO 95, Rule 56.4, Clearances, states in part:

> *The radial clearances between guys and conductors supported by or attached to the same poles or crossarms shall not be less than as specified in Table 2, Case 19.*

Table 2, Column C, Case 19 requires guy wires and communications conductors supported on the same pole to maintain a radial clearance of three inches.

An SCE down guy wire was in contact with a communications conductor near Pole No. 30027-CIT.

GO 128, Rule 17.1, Design, Construction and Maintenance, states in part:

> *For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design, construction, or maintenance of [the] communication or supply lines and equipment.*

The interior of pad-mounted structure P5325150 contained a large amount of dirt and gravel from apparent rodent activity. The debris reached the level of the uninsulated secondary neutral terminal of the enclosed transformer.