

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



January 26, 2022

EA2021-930

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

Subject: Audit of Southern California Edison's Barstow District

Mr. Stark:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Mily Vaidya and Stacey Ocampo of my staff conducted an electric distribution audit of Southern California Edison's (SCE) Barstow District from December 6, 2021 to December 10, 2021. The audit included a review of SCE's inspection and maintenance records and a field inspection 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 February 28, 2022, by electronic or hard copy, of all corrective measures taken by SCE to remedy and prevent such violations.

If you have any questions concerning this audit, you can contact Mily Vaidya at (213) 999-8528 or Mily.Vaidya@cpuc.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Fadi Daye".

Fadi Daye, P.E.
Program and Project Supervisor
Electric Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission

Enclosure: Audit Findings

Cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC
Nika Kjensli, Program Manager, ESRB, SED, CPUC
Derek Fong, Senior Utilities Engineer, ESRB, SED, CPUC
Mily Vaidya, Utilities Engineer, ESRB, SED, CPUC

Audit Findings

I. Records Review

During the audit, my staff reviewed the following records:

- Overhead and underground detailed inspection records
- Patrol records
- Completed and pending corrective action work orders
- Pole load calculations
- Intrusive test records
- Safety hazard notifications
- SCE's documented inspection program.
- Tree Trimming Management 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 October 2016 through October 2021, SCE completed 358 overhead detailed 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 October 2016 through October 2021, SCE completed 30 underground inspections past SCE's scheduled due date.

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.

Pre-2018 version of GO 95, Rule 18-A: Resolution of Safety Hazards and General Order 95 Nonconformances, states in part:

Each company (including utilities and CIPs) is responsible for taking appropriate corrective action to remedy safety hazards and GO 95 nonconformances posed by its facilities.

Current GO 95, Rule 18-A: Resolution of Safety Hazards and General Order 95 Nonconformances, states in part:

Each company (including electric utilities and communications companies) is responsible for taking appropriate corrective action to remedy potential violations of GO 95 and Safety Hazards posed by its facilities.

SCE's records indicated that from 2016 to 2021, SCE completed 402 overhead work orders 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 2016 to 2021, SCE completed 30 underground work orders past SCE's scheduled due date for corrective action.

III. Field Inspection

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

No.	Structure Number/ Address of Structure	Type of Structure	City
1	4847551E	Pole	New Berry Springs
2	4847557E	Pole	New Berry Springs
3	1730280E	Pole	New Berry Springs
4	2211076E	Pole	New Berry Springs
5	4847556E	Pole	New Berry Springs
6	228398S	Pole	New Berry Springs
7	34897CIT	Pole	New Berry Springs
8	228399S	Pole	New Berry Springs
9	29789S	Pole	New Berry Springs
10	1616746E	Pole	New Berry Springs
11	34893CIT	Pole	New Berry Springs
12	4859756E	Pole	Daggett
13	4512037E	Pole	Daggett
14	21578CIT	Pole	Daggett
15	21579CIT	Pole	Daggett
16	4859765E	Pole	Daggett
17	4844741E	Pole	Daggett
18	4843992E	Pole	Daggett
19	4843991E	Pole	Daggett
20	4350108E	Pole	Daggett
21	4843998E	Pole	Daggett
22	4859766E	Pole	Daggett
23	4350109E	Pole	Daggett
24	4748324E	Pole	Daggett
25	4267508E	Pole	Lenwood
26	4177647E	Pole	Lenwood
27	4505961E	Pole	Lenwood
28	4177646E	Pole	Lenwood
29	4177645E	Pole	Lenwood
30	4177644E	Pole	Lenwood
31	4177643E	Pole	Lenwood
32	2223580E	Pole	Lenwood
33	2223581E	Pole	Lenwood
34	2223582E	Pole	Lenwood
35	2223583E	Pole	Lenwood
36	2223584E	Pole	Lenwood
37	2223586E	Pole	Lenwood
38	2223586E	Pole	Lenwood
39	4176728E	Pole	Lenwood
40	2069197E	Pole	Lenwood
41	4169380E	Pole	Barstow
42	4867375E	Pole	Barstow
43	1563940E	Pole	Barstow
44	4176744E	Pole	Barstow
45	4177433E	Pole	Barstow

46	4177432E	Pole	Barstow
47	4349647E	Pole	Barstow
48	1903550E	Pole	Barstow
49	2236755E	Pole	Barstow
50	4177434E	Pole	Barstow
51	330561S	Pole	Barstow
52	1744740E	Pole	Barstow
53	4773940E	Pole	Barstow
54	2069196E	Pole	Barstow
55	1847970E	Pole	Barstow
56	4868288E	Pole	Barstow
57	4894912E	Pole	Barstow
58	4894911E	Pole	Barstow
59	4894913E	Pole	Barstow
60	330860	Pole	Barstow
61	330861	Pole	Barstow
62	428241	Pole	Barstow
63	4859708E	Pole	Barstow
64	4014958E	Pole	Barstow
65	4014957E	Pole	Barstow
67	4014956E	Pole	Barstow
68	4014954E	Pole	Barstow
69	330859S	Pole	Barstow
70	330877S	Pole	Barstow
71	4014952E	Pole	Barstow
72	4014953E	Pole	Barstow
73	1847971E	Pole	Barstow
74	82332S	Pole	Barstow
75	CIT60655	Pole	Barstow
76	CIT60654	Pole	Barstow
77	4792319E	Pole	Barstow
78	1847969E	Pole	Barstow
79	4015329E	Pole	Lenwood
80	4785378E	Pole	Daggett
81	4349881E	Pole	Hinkley
82	2263366E	Pole	Hinkley
83	228945S	Pole	Hinkley
84	4298651E	Pole	Hinkley
85	2202106E	Pole	Hinkley
86	5198388	Vault	Barstow
87	X5635979	Vault	Barstow
88	In front of 300 Quartz Ln	Handhole	Barstow
89	P5194303	Padmount	Barstow
90	In front of 2030 Quartz Ln	Handhole	Barstow
91	5194304	Burd	Barstow
92	In front of 2061 Quartz Ln	Handhole	Barstow
93	P5540216	Padmount	Barstow
94	In front of 2091 Quartz Ln	Handhole	Barstow
95	P5540217	Padmount	Barstow
96	In front of 2131 Quartz Ln	Handhole	Barstow
97	P5764555	Padmount	Lenwood
98	5444035	Vault	Lenwood
99	P5764556	Padmount	Lenwood

100	P5392695	Padmount	Lenwood
101	P5431651	Padmount	Lenwood
102	X5431562	Vault	Lenwood
103	P5431593	Padmount	Lenwood
104	P5392651	Padmount	Lenwood
105	1848048E	Pole	Barstow
106	1848047E	Pole	Barstow
107	1847752E	Pole	Barstow
108	1792517E	Pole	Barstow
109	1730346E	Pole	Barstow
110	1730349E	Pole	Barstow
111	4202428E	Pole	Lenwood
112	228980E	Pole	Lenwood
113	4202429E	Pole	Lenwood
114	228981S	Pole	Lenwood
115	1793273E	Pole	Lenwood

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 ground molding attached to each of the following SCE poles was damaged:

- 29789S
- 4267508E
- 4176744E
- 4202428E
- 4202429E
- 4176728E

The down guy wire attached to each of the following SCE poles was strained by vegetation:

- 4859766E
- 2069197E
- 4202428E
- 4202429E

The down guy anchor attached to each of the following SCE poles was completely buried in the ground:

- 4267508E
- 228981S

SCE's facilities on the following poles required maintenance:

- 2211076E: a visibility strip was damaged.
- 2236755E: the buddy pole associated with this pole has not been removed.
- 330561S: a crossarm supported on the pole was deteriorated and split.
- 330860: the down guy wire was contacting a bolt in the crossarm of the same pole.
- 82332S: the down guy wire was contacting the crossarm.

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 attached to each of the following SCE poles was loose and not taut:

- 4843991E
- 330877S
- 82332S
- 4202429E

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.

The high voltage signs on each of the following SCE poles were missing:

- 34897CIT
- 4267508E
- 4177645
- 4177644E
- 4177643E
- CIT60654
- 1730349E
- 1793273E

The high voltage signs on each of the following SCE poles were damaged:

- 1730280E
- 228399S
- 4350109E
- 29789S
- 4177647E
- 2223584E
- 1903550E
- 1847970E
- 330861
- 428241S

- 4014953E
- 4349881E
- 2202106E

General Order 95, Rule 38 - Minimum Clearances of Wires from Other Wires, Table 2, Column C, Case 19 requires the minimum radial clearance between guys and span wires passing communication conductors supported on the same poles to be three inches.

- 29789S - the down guy wire was contacting secondary conductors attached to the same pole.
- 228981S - the down guy wire was contacting a communications conductor attached to the same pole.

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.

Pole 2223580E had a stop sign attached to it.

GO 95, Rule 91.3B, 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.

The lowest pole step on pole 82332S was located at a height of less than eight feet.

GO 128, Rule 32.7, Covers, states in part:

Manholes, handholes, and subsurface equipment enclosures while not being worked in, shall be securely closed by covers of sufficient strength to sustain such loads as may reasonably be imposed upon them and arrangements shall be such that a tool or appliance shall be required for their opening and cover removal.

Each of the following SCE handholes had an unsecured cover with bolt(s) missing:

- Handhole at 2030 Quartz Ln, Barstow, CA
- Handhole at 2061 Quartz Ln, Barstow, CA