STATE OF CALIFORNIA GAVIN NEWSOM, *Governor*

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

December 22, 2022 EA2022-984

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 Monrovia District

Mr. Stark:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Stacey Ocampo and James Miller of my staff conducted an electric distribution audit of Southern California Edison's (SCE) Monrovia District from October 17, 2022 to October 21, 2022. 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 January 23, 2023, 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 Stacey Ocampo at (213) 266-4712 or Stacey.Ocampo@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

Enclosure: Audit Findings

Cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC
Nika Kjensli, Program Manager, ESRB, SED, CPUC
Majed Ibrahim, Senior Utilities Engineer, ESRB, SED, CPUC
Stacey Ocampo, Utilities Engineer, ESRB, SED, CPUC
James Miller, 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.
- Vegetation 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 August 2017 through August 2022, SCE completed 3 patrol inspections past SCE's scheduled due date. Additionally, as of the date of the audit, SCE had 2 pending patrol inspections that were past SCE's scheduled due date.

- SCE's records indicated that from August 2017 through August 2022, SCE completed 5487 detailed inspections past SCE's scheduled due date. Additionally, as of the date of the audit, SCE had 1933 pending detailed inspections that were 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 August 2017 through August 2022, SCE completed 251 underground inspections past SCE's scheduled due date. Additionally, as of the date of the audit, SCE had 25 pending underground inspections that were 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 August 2017 through August 2022, SCE completed 580 overhead work orders past SCE's due date for corrective action. Additionally, as of the date of the audit, SCE had 294 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 August 2017 through August 2022, SCE completed 81 underground work orders past SCE's due date for corrective action. Additionally, as of the date of the audit, SCE had 92 open underground work orders that were 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 ID	Type of Structure	Location
1	4647751E	Pole	Duarte
2	4857342E	Pole	Duarte
3	4303366E	Pole	Duarte
4	4160057E	Pole	Duarte
5	4160058E	Pole	Duarte
6	4606795E	Pole	Duarte
7	4647752E	Pole	Duarte
8	4141838E	Pole	Duarte
9	4156724E	Pole	Duarte
10	4156723E	Pole	Duarte
11	4080189E	Pole	Duarte
12	4549102E	Pole	Duarte
13	4422289E	Pole	Duarte
14	4156396E	Pole	Duarte
15	1041888E	Pole	Duarte
16	1041886E	Pole	Duarte
17	1429111E	Pole	Duarte
18	1041885E	Pole	Duarte
19	685344E	Pole	Duarte
20	4741563E	Pole	Duarte
21	1512759E	Pole	Duarte
22	1513088E	Pole	Duarte
23	1513087E	Pole	Duarte
24	4209646E	Pole	Irwindale
25	900208E	Pole	Irwindale
26	1768736E	Pole	Irwindale
27	GT7562	Pole	Irwindale
28	GT7563	Pole	Irwindale
29	GT7564	Pole	Irwindale
30	4677743E	Pole	Irwindale
31	1513171E	Pole	Irwindale
32	740481E	Pole	Irwindale
33	740482E	Pole	Irwindale
34	2288713E	Pole	Irwindale
35	4615359E	Pole	Irwindale
36	740485E	Pole	Irwindale
37	4071036E	Pole	Irwindale
38	1768740	Pole	Irwindale
39	884962E	Pole	Irwindale

40	861992E	Pole	Irwindale
41	861991E	Pole	Irwindale
42	685265E	Pole	Irwindale
43	GT16224	Pole	Irwindale
44	GT16223	Pole	Irwindale
45	GT16218	Pole	Irwindale
46	GT16217	Pole	Irwindale
47	GT16216	Pole	Irwindale
48	GT16214	Pole	Irwindale
49	GT16205	Pole	Irwindale
50	1195494E	Pole	La Cañada
51	884256E	Pole	La Cañada
52	1760695E	Pole	La Cañada
53	678088E	Pole	La Cañada
54	678089E	Pole	La Cañada
55	678090E	Pole	La Cañada
56	678091E	Pole	La Cañada
57	678092E	Pole	La Cañada
58	4883416E	Pole	La Cañada
59	678094E	Pole	La Cañada
60	700621E	Pole	La Cañada
61	700622E	Pole	La Cañada
62	700623E	Pole	La Cañada
63	1222090E	Pole	La Cañada
64	1222091E	Pole	La Cañada
65	4502771E	Pole	La Cañada
66	4516211E	Pole	La Cañada
67	4516212E	Pole	La Cañada
68	4159928E	Pole	La Cañada
69	1222121E	Pole	La Cañada
70	1222118E	Pole	La Cañada
71	1197019E	Pole	La Cañada
72	4719308E	Pole	La Cañada
73	1197093E	Pole	La Cañada
74	1197038E	Pole	La Cañada
75	1197039E	Pole	La Cañada
76	1197040E	Pole	La Cañada
77	4164612E	Pole	La Cañada
78	834856E	Pole	La Cañada
79	201107E	Pole	La Cañada
80	4780169E	Pole	Sierra Madre
81	4141908E	Pole	Sierra Madre
82	4141907E	Pole	Sierra Madre
83	4908394E	Pole	Sierra Madre
84	44081GT	Pole	Sierra Madre

85	4141906E	Pole	Sierra Madre
86	4141904E	Pole	Sierra Madre
87	4602145E	Pole	Sierra Madre
88	1901181E	Pole	Sierra Madre
89	3495CWT	Pole	Sierra Madre
90	4513831E	Pole	Sierra Madre
91	4141902E	Pole	Sierra Madre
92	4537097E	Pole	Sierra Madre
93	4141924E	Pole	Sierra Madre
94	9255CWT	Pole	Sierra Madre
95	154956E	Pole	Sierra Madre
96	1271555E	Pole	Sierra Madre
97	9256CWT	Pole	Sierra Madre
98	223667E	Pole	Sierra Madre
99	4819201E	Pole	Sierra Madre
100	1224231E	Pole	Sierra Madre
101	4760390E	Pole	Sierra Madre
102	4579640E	Pole	Sierra Madre
103	4141911E	Pole	Sierra Madre
104	4602146E	Pole	Sierra Madre
105	GT16223	Pole	Monrovia
106	996658E	Pole	Azusa
107	4431491E	Pole	Baldwin Park
108	1312978E	Pole	Baldwin Park
109	143597E	Pole	Baldwin Park
110	GT87444	Pole	Baldwin Park
111	1054014E	Pole	Baldwin Park
112	1054015E	Pole	Baldwin Park
113	1054016E	Pole	Baldwin Park
114	1054017E	Pole	Baldwin Park
115	1054018E	Pole	Baldwin Park
116	4501058E	Pole	Baldwin Park
117	4463340E	Pole	Baldwin Park
118	E62787Y	Pole	Baldwin Park
119	1054400E	Pole	Baldwin Park
120	4570493E	Pole	Baldwin Park
121	4735990E	Pole	Baldwin Park
122	862954E	Pole	Baldwin Park
123	862948E	Pole	Baldwin Park
124	129610E	Pole	Baldwin Park
125	1623870E	Pole	Baldwin Park
126	4759574E	Pole	Baldwin Park
127	267006E	Pole	Monrovia
128	266950E	Pole	Monrovia
129	4502930E	Pole	Monrovia

130	4693282E	Pole	Monrovia
131	2180364E	Pole	Monrovia
132	963627E	Pole	Monrovia
133	4517845E	Pole	Monrovia
134	1429790E	Pole	Monrovia
135	1107496E	Pole	Monrovia
136	1107497E	Pole	Monrovia
137	922643E	Pole	Monrovia
138	156MT	Pole	Monrovia
139	1323033E	Pole	Monrovia
140	4450371E	Pole	Monrovia
141	P5481149	Pad-mounted Transformer	La Cañada
142	5008238	Vault	La Cañada
143	P5008601	Pad-mounted Transformer	Arcadia
144	5378638	Pad-mounted Transformer	Arcadia
145	5008421	BURD Switch	Arcadia
146	5043942	BURD Switch	Baldwin Park
147	P5127697	Pad-mounted Transformer	Baldwin Park

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.*

SCE's facilities on the following poles required maintenance:

- Pole 156MT: a crossarm was damaged.
- Pole 1623870E: a balloon ribbon was caught on a primary conductor.
- Pole 834856E: a mylar balloon was attached to a span of overhead primary conductors.

The visibility strips attached to the following SCE poles were damaged:

- GT7564
- 2180364E

Insulators attached to the following SCE poles were "sunken":

- 1107497E
- 156MT

GO 95, Rule 31.6, Abandoned Lines, states in part:

> *Lines or portions of lines permanently abandoned shall be removed by their owners so that such lines shall not become a public nuisance or a hazard to life or property. For the purposes of this rule, lines that are permanently abandoned shall be defined as those lines that are determined by their owner to have no foreseeable future use.*

A span guy wire attached to Pole 4647751E was permanently abandoned and not removed.

GO 95, Rule 35, Vegetation Management, states in part:

> *When a supply or communication company has actual knowledge, obtained either through normal operating practices or notification to the company, that its circuit energized at 750 volts or less shows strain or evidences abrasion from vegetation contact, the condition shall be corrected by reducing conductor tension, rearranging or replacing the conductor, pruning the vegetation, or placing mechanical protection on the conductor(s).*

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A secondary conductor attached to Pole 678090E was strained by vegetation.

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 each of the following three poles was located at a height of less than eight feet:

- 1760695E
- 1222121E
- 996658E

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 either missing or damaged:

- 1429111E
- 1041885E
- 4741563E
- 1512759E
- 4209646E
- 685265E
- 740481E
- 740482E
- 2288713E
- GT16217
- 1054016E
- 862954E
- 1054017E
- 1054018E
- 1623870E
- 2180364E
- 1054400E

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 3 inches.

The radial clearance between an SCE down guy wire and a third-party communications conductor on each of following poles was less than 3 inches:

- 1768736E
- 154956E
- 223667E
- 267006E

GO 95, Rule 54.8, Table 10 requires the minimum vertical clearance of insulated service drops of 0-750 volts above the roof of the house being served to be 0.5 inches.

A service drop attached to Pole 4071036E was touching the roof of the home it was servicing.

GO 95, Rule 54.6-B, Ground Wires, states in part:

> *That portion of the ground wires attached on the face or back of wood crossarms or on the surface of wood poles and structures shall be covered by a suitable protective covering (see Rule 22.8).*

The ground moulding attached to Pole 1623870E was damaged.

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.*

Thermal imaging of BURD switch 5043942 revealed that one of the switch's elbow connectors had a high/unsafe temperature “hot spot” reading.