

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



August 24, 2022

EA2022-1003

Dan Marsh, Senior Manager
Rates and Regulatory Affairs
Liberty Utilities
933 Eloise Ave
South Lake Tahoe, CA 96150

SUBJECT: Electric Distribution Audit of Liberty Utilities' Tahoe Division

Dear Mr. Marsh:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Samuel Mandell and Emiliano Solorio of ESRB staff conducted an electric distribution audit of Liberty Utilities' Tahoe Division from May 23 through May 27, 2022. During the audit, ESRB staff conducted field inspection of Liberty's distribution facilities and equipment and reviewed pertinent documents and records.

As a result of the audit, ESRB staff identified violations of one or more General Orders (GOs). A copy of the audit findings itemizing the violations is enclosed. Please provide a response no later than September 21, 2022, by electronic copy of all corrective actions and preventive measures taken by Liberty to correct the identified violations and prevent the recurrence of such violations.

The response should indicate the date of each remedial action and preventive measure completed. For any outstanding items not addressed, please provide the projected completion dates of all corrective actions for the violations outlined in Sections II & IV and the observations listed in Section V of the enclosed Audit Findings.

If you have any questions concerning this audit, please contact Samuel Mandell at (916) 217-8294 or Samuel.Mandell@cpuc.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Banu Acimis".

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

Enclosure: CPUC Electric Distribution Audit Findings

Cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC
Nika Kjensli, Program Manager, ESRB, SED, CPUC

Nathan Sarina, Senior Utilities Engineer (Supervisor), ESRB, SED, CPUC
Rickey Tse, Senior Utilities Engineer (Supervisor), ESRB, SED, CPUC
Samuel Mandell, Utilities Engineer, ESRB, SED, CPUC
Emiliano Solorio, Utilities Engineer, ESRB, SED, CPUC

**LIBERTY UTILITIES TAHOE DIVISION
ELECTRIC DISTRIBUTION AUDIT FINDINGS
May 23-27, 2022**

I. Records Review

During the audit, ESRB staff reviewed the following records:

- Liberty Utilities' (Liberty) inspection and maintenance procedures.
- Completed work orders with notifications from the past 12 months, canceled work orders with notifications from the past 12 months, and open and late work orders from the past 60 months.
- Patrol and detailed inspection records from the past 60 months.
- Reliability metrics and sustained outages for the past 60 months.
- New Construction projects (both overhead and underground) in the past 12 months.
- Pole loading and safety factor calculations completed in the last 12 months.
- Third Party Safety Hazard notifications sent and received for the past 60 months.
- Inspector list for the past 60 months and inspector qualifications.
- Equipment test records for the past 36 months.

II. Records Violations

ESRB staff observed the following violations during the record review portion of the audit:

1. GO 95, Rule 18-B1(a), Maintenance Programs states in part:

“The maximum time periods for corrective actions associated with potential violation of GO 95 or a Safety Hazard are based on the following priority levels:

- (i) *Level 1 -- An immediate risk of high potential impact to safety or reliability:*
 - *Take corrective action immediately, either by fully repairing or by temporarily repairing and reclassifying to a lower priority.*
- (ii) *Level 2 -- Any other risk of at least moderate potential impact to safety or reliability:*
 - *Take corrective action within specified time period (either by fully repair or by temporarily repairing and reclassifying to Level 3 priority). Time period for corrective action to be determined at the time of identification by a qualified company representative, but not to exceed: (1) six months for potential violations that create a fire risk located in Tier 3 of the High Fire-Threat District; (2) 12 months for potential violations that create a fire risk located in Tier 2 of the High Fire-Threat District; (3) 12 months for potential violations that compromise worker safety; and (4) 36 months for all other Level 2 potential violations.*
- (iii) *Level 3 -- Any risk of low potential impact to safety or reliability:*

- *Take corrective action within 60 months subject to the exception specified below.”*

ESRB’s review of Liberty’s work orders from 2017 to April 28, 2022 found that Liberty had 6 late-pending work orders and 152 late-closed work orders. Late-pending work orders are pending work orders that have not been completed by their assigned due date based on their hazard level, and late-closed work orders are work orders that were completed past their assigned due date based on their hazard level. Table 1 below breaks down the 158 late work orders, including the total number of late work orders, as well as late-pending and late-closed work orders, which are included in the total.

Table 1: Late Work Orders

Year Identified	Total Late Work Orders	Late-Pending Work Orders	Late-Closed Work Orders
2017	127	6	121
2018	-	-	-
2019	31	-	31
2020	-	-	-
2021	-	-	-
2022	-	-	-
Total	158	6	152

III. Field Inspection

During the field inspection, ESRB staff inspected the following facilities:

Location #	Structure #	Structure Type	Structure Location/Address	City
1	182029	Pole	Antelope Valley Fire District	Coleville
2	177088	Pole	1236 Larson Ln.	Coleville
3	208930	Pole	1 pole East of Loc 2	Coleville
4	40477	Pole	1331 Larson Ln	Coleville
5	40478	Pole	1 pole East of Loc 4	Coleville
6	286973	Pole	1 pole West of Loc 1	Coleville
7	40471	Pole	2 poles West of Loc 1	Coleville
8	40407	Pole	1324 Cunningham Ln	Topaz
9	40406	Pole	1272 Cunningham Ln	Topaz
10	294728	Pole	1 pole West of Loc 9	Topaz
11	40404	Pole	2 poles West of Loc 9	Topaz
12	40403	Pole	3 Poles west of Loc 9	Topaz
13	294727	Pole	Across from AVFD Station 2	Topaz
14	294726	Pole	1 pole East of Loc 13	Topaz
15	292300	Pole	Poor Boy Rd	Markleeville
16	292301	Pole	1 pole East of Loc 15	Markleeville
17	292302	Pole	2 poles East of Loc 15	Markleeville
18	292303	Pole	3 poles East of Loc 15	Markleeville
19	292543	Pole	4 poles East of Loc 15	Markleeville
20	156495	Pole	California Rd and Emigrant Trail	Markleeville
21	156496	Pole	55 California Rd.	Markleeville
22	156497	Pole	1 Pole West of Loc 21	Markleeville
23	156498	Pole	105 California Rd.	Markleeville
24	181132	Pole	1 Pole West of Loc 23	Markleeville
25	120495	Pole	3307 Panorama Dr.	South Lake Tahoe
26	120494	Pole	3289 Panorama Dr.	South Lake Tahoe
27	120493	Pole	3278 Panorama Dr.	South Lake Tahoe
28	120492	Pole	3266 Panorama Dr.	South Lake Tahoe
29	120491	Pole	Across from 3251 Panorama Dr.	South Lake Tahoe
30	120490	Pole	3238 Panorama Dr.	South Lake Tahoe

31	116553	Pole	3274 W. River Park Rd.	South Lake Tahoe
32	146420	Pole	3289 W. River Park Rd.	South Lake Tahoe
33	168005	Pole	2344 Kaska St.	South Lake Tahoe
34	168004	Pole	1 Pole South Loc 33	South Lake Tahoe
35	168003	Pole	2372 Kaska St.	South Lake Tahoe
36	122903	Pole	1024 Shakori Dr.	South Lake Tahoe
37	294951	Pole	Woods off Cascade Road	South Lake Tahoe
38	49209	Pole	1 Pole South Loc 37	South Lake Tahoe
39	135225	Pole	2 Poles South Loc 37	South Lake Tahoe
40	135224	Pole	3 Poles South Loc 37	South Lake Tahoe
41	290771	Pole	840 Roger Ave.	South Lake Tahoe
42	102937	Pole	848c Roger Ave.	South Lake Tahoe
43	102936	Pole	857-2 Roger Ave.	South Lake Tahoe
44	102935	Pole	890 Roger Ave.	South Lake Tahoe
45	76638	Pole	729 Sand Harbor	South Lake Tahoe
46	76639	Pole	1 Pole West of Loc 45	South Lake Tahoe
47	182808	Pole	1104 Martin Ave.	South Lake Tahoe
48	120235	Pole	Martin Ave. & Armstrong Ave.	South Lake Tahoe
49	76667	Pole	1089 Martin Ave.	South Lake Tahoe
50	120236	Pole	Martin Ave. & Knox Ave.	South Lake Tahoe
51	76669	Pole	1125 Martin Ave	South Lake Tahoe
52	120237	Pole	Martin Ave. & Bertha Ave.	South Lake Tahoe
53	63871	Pole	Martin Ave.	South Lake Tahoe

54	294769	Pole	1141 Tata Ln.	South Lake Tahoe
55	259635	Pole	1120 Tata Ln	South Lake Tahoe
56	259636	Pole	1109 Tata Ln	South Lake Tahoe
57	120446	Pole	2316 Del Norte St.	South Lake Tahoe
58	107390	Pole	2298 Del Norte St.	South Lake Tahoe
59	107693	Pole	2331 Del Norte St	South Lake Tahoe
60	34365/192988	Pole	4042 Sunrise Ln.	South Lake Tahoe
61	290956	Pole	4080 Sunrise Ln.	South Lake Tahoe
62	290150	Pole	4084 Sunrise Ln.	South Lake Tahoe
63	135429	Pole	847 Hill Rd	South Lake Tahoe
64	294045	Pole	1026 Fern Rd	South Lake Tahoe
65	294046	Pole	1036 Fern Rd.	South Lake Tahoe
66	294049	Pole	1040 Fern Rd	South Lake Tahoe
67	294050	Pole	Fern and Primrose	South Lake Tahoe
68	295051	Pole	1051 Fern Rd.	South Lake Tahoe
69	294043	Pole	1074 Fern Rd.	South Lake Tahoe
70	122834	Pole	1392 Wildwood Ave.	South Lake Tahoe
71	69531	Pole	Wildwood Ave. & Verdon Ln.	South Lake Tahoe
72	90800	Pole	3751 Verdon Ln	South Lake Tahoe
73	90799	Pole	3741 Verdon Ln.	South Lake Tahoe
74	90798	Pole	3729 Verdon Ln.	South Lake Tahoe
75	90799	Pole	3723 Verdon Ln.	South Lake Tahoe
76	92248	Pole	9121 Scenic Dr.	South Lake Tahoe

77	92249	Pole	9115 Scenic Dr	South Lake Tahoe
78	92250	Pole	9097 Scenic Dr.	South Lake Tahoe
79	92247	Pole	9134 Scenic Dr.	South Lake Tahoe
80	278459	Pole	9150 Scenic Dr.	South Lake Tahoe
81	Ts 676	Padmount Transformer	9158 Scenic Dr.	South Lake Tahoe
82	216203	Pole	443 Pine St.	Homewood
83	216202	Pole	Pine St. & Deer Ave.	Homewood
84	158162	Pole	431 Pine St.	Homewood
85	249302	Pole	Pine St. & Gray Ave.	Homewood
86	167903	Pole	6618 Pine St.	Homewood
87	90674	Pole	535 Bonanza Dr.	Tahoe City
88	90675	Pole	435 Bonanza Dr.	Tahoe City
89	90676	Pole	Bonanza Dr. & Goldfield Dr.	Tahoe City
90	VFI 119	Switch	55 W Lake Blvd	Tahoe City
91	Ts 179	Padmount Transformer	150 W Lake Blvd	Tahoe City
92	Ts 180	Padmount Transformer	180 W Lake Blvd	Tahoe City
93	Ts 12	Padmount Transformer	180 W Lake Blvd	Tahoe City
94	60543	Pole	85 Speedboat Ave.	Kings Beach
95	248807	Pole	86 Speedboat Ave.	Kings Beach
96	249356	Pole	77 Speedboat Ave.	Kings Beach
97	60544	Pole	125 Speedboat Ave.	Kings Beach
98	244279	Pole	141 Speedboat Ave.	Kings Beach
99	81444	Pole	8350 Golden Ave.	Kings Beach
100	81443	Pole	8320 Golden Ave.	Kings Beach
101	294509	Pole	Golden Ave. & Deer St.	Kings Beach
102	294510	Pole	348 Deer St.	Kings Beach
103	281233	Pole	Deer St and Rainbow Ave	Kings Beach
104	34463	Padmount Transformer	7874 North Ave	Tahoe Vista
105	43147	Padmount Transformer	7842 North Ave.	Tahoe Vista
106	43148	Padmount Transformer	7642 North Ave.	Tahoe Vista
107	1350	Vault Splice Box	7642 North Ave.	Tahoe Vista
108	75902	Padmount Transformer	7525 North Ave.	Tahoe Vista

IV. Field Inspection Violations

ESRB staff observed the following violations during the field inspection:

1. 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.”

- 1.1) The pole at 1331 Larson Lane in Coleville (Location 3), has a buried anchor.
- 1.2) The pole 2 spans West of the Antelope Valley Fire Station in Coleville (Location 7) had loose hardware on the upper crossarm.
- 1.3) The pole 2 poles west of 1272 Cunningham in Topaz (Location 11) has loose hardware on the crossarm.
- 1.4) The pole at California Rd and Emigrant Trail in Markleeville (Location 20) is deteriorated and needs to be replaced.
- 1.5) The pole in the woods off of Cascade Rd in South Lake Tahoe (Location 38) has a significant lean that needs to be addressed.
- 1.6) The pole at 810 Rogers Ave in South Lake Tahoe (Location 44) has woodpecker damage.
- 1.7) The pole across from 2316 Del Norte St in South Lake Tahoe (Location 57) has woodpecker damage.
- 1.8) The pole at 1074 Fern Rd in South Lake Tahoe (Location 69) has a service riser still attached to a buddy pole.
- 1.9) The pole at 1392 Wild Wood Ave in South Lake Tahoe (Location 70) has hardware pulling through the crossarm.
- 1.10) The pole located at 9097 Scenic Dr in South Lake Tahoe (Location 78) is leaning and putting tension on the service drop.
- 1.11) The pole at 8350 Golden Ave in Kings Beach (Location 99) has woodpecker damage.

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

“Nothing in these rules shall be construed as permitting the unauthorized attachment, to supply, streetlight 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.”

Nothing herein contained shall be construed as requiring utilities to grant permission for such use of their overhead facilities; or permitting any use of joint poles or facilities for such permanent or temporary construction without the consent of all parties having any ownership whatever in the poles or structures to which attachments may be made; or granting authority for the use of any poles, structures or facilities without the owner's or owners' consent."

2.1) The pole at 1324 Cunningham in Topaz (Location 8) had unauthorized third-party attachments.

2.2) The pole at 1272 Cunningham in Topaz (Location 9) had unauthorized third-party attachments.

2.3) The pole 1 span west of 55 California Rd in Markleeville (Location 22) had unauthorized third-party attachments.

2.4) The pole at the intersection of Martin Ave and Bertha Ave in South Lake Tahoe (Location 52) had unauthorized third-party attachments.

3. GO 95, Rule 51.6-A, High Voltage Marking 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. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible."

3.1) The pole one span west of the first pole in the woods off of Cascade Rd in South Lake Tahoe (Location 39) needs a high voltage sign.

3.2) The pole at the intersection of Martin Ave and Knox Ave in South Lake Tahoe (Location 50) needs a high voltage sign.

4. GO 95, Rule 56.6-A, Guys in Proximity to Supply Conductors of Less than 35,500 Volts states in part:

"All portions of guys within both a vertical distance of 8 feet from the level of supply conductors of less than 35,500 volts and a radial distance of 6 feet from the surface of wood poles or structures shall not be grounded, through anchors or otherwise. Where necessary to avoid the grounding of such portions, guys shall be sectionalized by means of insulators installed at locations as specified in Rule 56.7."

4.1) The pole 2 spans West of the Antelope Valley Fire Station in Coleville (Location 7) has its insulator less than 8 feet from the ground.

4.2) The pole located at 3278 Panorama Dr in South Lake Tahoe (Location 27) has vegetation contacting the guy wire above the insulator on both the primary and secondary down guys.

4.3) The pole located at 9097 Scenic Dr in South Lake Tahoe (Location 78) has vegetation contacting the guy wire above the insulator on the primary down guys.

5. GO 95, Rule 91.3 – C, Joint Poles or Poles Jointly Use, Stepping states in part:

“Where installed, the lowest step shall not be 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.”

5.1) The pole 2 spans West of the Antelope Valley Fire Station in Coleville (Location 7) has its lowest pole step less than 8 feet from the ground.

5.2) The pole at 3238 Panorama Dr in South Lake Tahoe (Location 30) has its lowest pole step less than 8 feet from the ground.

5.3) The pole at 2344 Kaska St in South Lake Tahoe (Location 33) has its lowest pole step less than 8 feet from the ground.

5.4) The pole at 847 Hill Rd in South Lake Tahoe (Location 63) has its lowest pole step less than 8 feet from the ground.

5.5) The pole at 3723 Verdon Ln in South Lake Tahoe (Location 75) has its lowest pole step less than 8 feet from the ground.

5.6) The pole at 85 Speedboat Ave in Kings Beach (Location 94) has its lowest pole step less than 8 feet from the ground.

6. 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.”

6.1) The pole in the woods off of Cascade Rd in South Lake Tahoe (Location 38) has a slack guy.

6.2) The pole at 147 Speedboat Ave in Kings Beach (Location 98) has a slack secondary guy.

7. GO 95, Rule 54.6-B, Vertical and Lateral Conductors, Ground Wires states in part:

“That portion of the ground wire 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).”

7.1) The pole at 1392 Wild Wood Ave in South Lake Tahoe (Location 70) has an exposed ground wire between the communications and the secondary.

7.2) The pole at 3723 Verdon Ln in South Lake Tahoe (Location 75) has an exposed ground wire near the base.

7.3) The pole at 435 Bonanza Dr. in South Lake Tahoe (Location 88) has an exposed ground wire mid pole.

7.4) The pole at 8350 Golden Ave in Kings Beach (Location 99) has an exposed ground wire at multiple points on the pole.

8. 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.

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.”

8.) The padmount transformer, TS12, located at 180 W Lake Blvd in Tahoe City (Location 93) has a rodents nest under the fuses.

9. GO 128, Rule 34.3B, Guarding Live Parts states in part:

“Compartments and enclosures which will, during normal operation, contain exposed live parts shall be designed and installed to prevent a person from passing a wire or other conducting material into such compartment from the outside when it is closed. This requirement is not intended to prevent normal work operations such as fishing ducts and installing cable. Exception: Pad-mounted equipment that contains exposed live parts shall be installed to resist the passing of a wire the equivalent of bare number 18AWG from the outside between the pad and the housing of the equipment, into the compartment which contains live parts when it is closed.”

9.) The padmount transformer at 7842 North Ave in Tahoe City (Location 105) has a gap between the concrete pad and the transformer case.

V. Observations

ESRB staff observed the following during the field inspection:

The following locations had potential third-party safety concerns:

- The pole at 3307 Panorama Dr in South Lake Tahoe (Location 25) has a loose communications ground that needs to be secured to the pole.
- The pole at 3266 Panorama Dr in South Lake Tahoe (Location 28) has a loose communications ground that needs to be secured to the pole.
- The pole across from 3251 Panorama Dr in South Lake Tahoe (Location 29) has a loose communications ground that needs to be secured to the pole.
- The pole at 1104 Martin Ave in South Lake Tahoe (Location 47) has a split communications crossarm.
- The pole at 1089 Martin Ave in South Lake (Location 49) has a hanging communications service drop.
- The pole at 1109 Tata Ln in South Lake (Location 56) has a hanging communications wire.
- The pole at 847 Hill Rd in South Lake Tahoe (Location 63) has a loose communications ground that needs to be secured to the pole.
- The pole at 1026 Fern Rd in South Lake Tahoe (Location 64) has a communications buddy pole with an uncovered riser.
- The pole at Bonanza Dr. & Goldfield Dr. in South Lake Tahoe (Location 89) has a communications service drop that is laying on the ground.