

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



February 19, 2021

EA2020-866

Paul Marconi
President and Treasurer
Bear Valley Electric Service, Inc.
42020 Garstin Drive
P.O. Box 1547
Big Bear Lake, CA 92315

Subject: Audit of Bear Valley Electric Service, Inc.

Mr. Marconi:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Calvin Choi and James Miller of my staff conducted an electric distribution audit of Bear Valley Electric Service (BVES), Inc. from November 16, 2020 to November 20, 2020. The audit included a review of BVES's records and field inspections of BVES'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 March 19, 2021, by electronic or hard copy, of all corrective measures taken by BVES to remedy and prevent such violations.

If you have any questions concerning this audit, you can contact Calvin Choi at (213) 266-4730 or Calvin.Choi@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

Enclosures: Audit Findings

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

AUDIT FINDINGS

I. Records Review

During the audit, my staff reviewed the following records:

- Overhead and underground detailed inspections records.
- Completed and pending corrective action work orders.
- Safety hazard notifications.
- Pole loading calculations records.
- Intrusive testing records.
- Vegetation management records.
- BVES's documented inspection program.

II. Field Inspections

My staff inspected the following facilities during the field inspection:

No.	Structure ID.	Type of Structure	Location
1	5092BV	Pole	Moonridge
2	Pole west of 5092BV	Pole	Moonridge
3	5090BV	Pole	Moonridge
4	Pole west of 5090BV	Pole	Moonridge
5	5093BV	Pole	Moonridge
6	5094BV	Pole	Moonridge
7	1287BV	Pole	Moonridge
8	5096BV	Pole	Moonridge
9	5097BV	Pole	Moonridge
10	Pole next to 5097 BV with 1104 sign	Pole	Moonridge
11	5371BV	Pole	Moonridge
12	5372BV	Pole	Moonridge
13	5098BV	Pole	Moonridge
14	5373BV	Pole	Moonridge
15	5431BV	Pole	Moonridge
16	5374BV	Pole	Moonridge
17	14722BV	Pole	Moonridge
18	14721BV	Pole	Moonridge
19	11253BV	Pole	Moonridge
20	12726BV	Pole	Moonridge
21	12727BV	Pole	Moonridge
22	14720BV	Pole	Moonridge
23	14719BV	Pole	Moonridge
24	14718BV	Pole	Moonridge
25	5612BV	Pole	Moonridge
26	5611BV	Pole	Moonridge
27	5610BV	Pole	Moonridge
28	5609BV	Pole	Moonridge
29	5608BV	Pole	Moonridge
30	5607BV	Pole	Moonridge
31	5605BV	Pole	Moonridge
32	5604BV	Pole	Moonridge
33	5603BV	Pole	Moonridge
34	12024BV	Pole	Moonridge
35	12023BV	Pole	Moonridge
36	12022BV	Pole	Moonridge
37	12021BV	Pole	Moonridge
38	12020BV	Pole	Moonridge
39	10560BV	Pole	Moonridge
40	27582CIT	Pole	Moonridge

41	27583CIT	Pole	Moonridge
42	27584CIT	Pole	Moonridge
43	27585CIT	Pole	Moonridge
44	27586CIT	Pole	Moonridge
45	12342BV	Pole	Moonridge
46	3418BV	Pole	Moonridge
47	3419BV	Pole	Moonridge
48	3420BV	Pole	Moonridge
49	11058BV	Pole	Moonridge
50	11062BV	Pole	Moonridge
51	3423BV	Pole	Moonridge
52	11063BV	Pole	Moonridge
53	31747CIT	Pole	Moonridge
54	4971BV	Pole	Fawnskin
55	6070CIT	Pole	Fawnskin
56	31521CIT	Pole	Fawnskin
57	31522CIT	Pole	Fawnskin
58	1210286CTC	Pole	Fawnskin
59	31520CIT	Pole	Fawnskin
60	13483BV	Pole	Fawnskin
61	13574BV	Pole	Fawnskin
62	9828BV	Pole	Fawnskin
63	8585BV	Pole	Fawnskin
64	5859BV	Pole	Fawnskin
65	31511CIT	Pole	Fawnskin
66	31510CIT	Pole	Fawnskin
67	14530BV	Pole	Big Bear City
68	12276BV	Pole	Big Bear City
69	12564BV	Pole	Big Bear City
70	12286BV	Pole	Big Bear City
71	12285BV	Pole	Big Bear City
72	12284BV	Pole	Big Bear City
73	12752BV	Pole	Big Bear City
74	1210234CTC	Pole	Big Bear City
75	13217BV	Pole	Big Bear City
76	13234BV	Pole	Big Bear City
77	13216BV	Pole	Big Bear City
77	10332BV	Pole	Big Bear City
78	10331BV	Pole	Big Bear City
79	10312BV	Pole	Big Bear City
80	13215BV	Pole	Big Bear City
81	6495BV	Pole	Big Bear City
82	13249BV	Pole	Big Bear City
83	11880BV	Pole	Big Bear City
84	11881BV	Pole	Big Bear City

85	11882BV	Pole	Big Bear City
86	11885BV	Pole	Big Bear City
87	13268BV	Pole	Big Bear City
88	13319BV	Pole	Big Bear City
89	13318BV	Pole	Big Bear City
90	13317BV	Pole	Big Bear City
91	11733BV	Pole	Big Bear City
92	5060BV	Pole	Big Bear City
93	37245CIT	Pole	Big Bear City
94	10765BV	Pole	Big Bear City
95	13280BV	Pole	Big Bear City
96	13960BV	Pole	Big Bear City
97	13958BV	Pole	Big Bear City
98	13957BV	Pole	Big Bear City
99	13956BV	Pole	Big Bear City
100	60591CIT	Pole	Big Bear City
101	60590CIT	Pole	Big Bear City
102	11212BV	Pole	Big Bear City
103	10596BV	Pole	Big Bear City
104	12223BV	Pole	Big Bear City
105	12224BV	Pole	Big Bear City
106	Pole next to 12224BV	Pole	Big Bear City
107	12227BV	Pole	Big Bear City
108	12228BV	Pole	Big Bear City
109	12297BV	Pole	Big Bear City
110	12229BV	Pole	Big Bear City
111	12230BV	Pole	Big Bear City
112	12231BV	Pole	Big Bear City
113	11467BV	Pole	Big Bear City
114	60484CIT	Pole	Big Bear City
115	11097BV	Pole	Big Bear City
116	12485BV	Pole	Big Bear City
117	12899BV	Pole	Big Bear City
118	12157BV	Pole	Big Bear City
119	12156BV	Pole	Big Bear City
120	12155BV	Pole	Big Bear City
121	Pole next to 12155BV	Pole	Big Bear City
122	11992BV	Pole	Big Bear City
123	11314BV	Pole	Big Bear City
124	12396BV	Pole	Big Bear City
125	12397BV	Pole	Big Bear City
126	9684BV	Pole	Baldwin Lake
127	9684BV	Pole	Baldwin Lake
128	9685BV	Pole	Baldwin Lake
129	13168BV	Pole	Baldwin Lake

130	9821BV	Pole	Baldwin Lake
131	9822BV	Pole	Baldwin Lake
132	9823BV	Pole	Baldwin Lake
133	11679BV	Pole	Baldwin Lake
134	11476BV	Pole	Baldwin Lake
135	11475BV	Pole	Baldwin Lake
136	9686BV	Pole	Baldwin Lake
137	9687BV	Pole	Baldwin Lake
138	9688BV	Pole	Baldwin Lake
139	12496BV	Pole	Baldwin Lake
140	9689BV	Pole	Baldwin Lake
141	13727BV	Pole	Baldwin Lake
142	13726BV	Pole	Baldwin Lake
143	12127BV	Pole	Baldwin Lake
144	13347BV	Pole	Baldwin Lake
145	13348BV	Pole	Baldwin Lake
146	13803BV	Pole	Baldwin Lake
147	8307BV	Pole	Sugarloaf
148	6070BV	Pole	Sugarloaf
149	6069BV	Pole	Sugarloaf
150	6071BV	Pole	Sugarloaf
151	6072BV	Pole	Sugarloaf
152	6073BV	Pole	Sugarloaf
153	6074BV	Pole	Sugarloaf
154	6075BV	Pole	Sugarloaf
155	8476BV	Pole	Sugarloaf
156	8477BV	Pole	Sugarloaf
157	1211706CTC	Pole	Sugarloaf
158	13404BV	Pole	Erwin Lake
159	13409BV	Pole	Erwin Lake
160	13410BV	Pole	Erwin Lake
161	13411BV	Pole	Erwin Lake
162	7215BV	Pole	Erwin Lake
163	9013BV	Pole	Erwin Lake
164	8525BV	Pole	Erwin Lake
165	7607BV	Pole	Erwin Lake
166	7606BV	Pole	Erwin Lake
167	6529BV	Pole	Erwin Lake
168	13715BV	Pole	Erwin Lake
169	13482BV	Pole	Erwin Lake
170	13468BV	Pole	Erwin Lake
171	40671 Village Drive	Pad-mounted Transformer	Big Bear City
172	40701 Village Drive	Pad-mounted Transformer	Big Bear City
173	40606 Ironwood Drive	Pad-mounted Transformer	Big Bear City
174	843 Paine Road	Pad-mounted Transformer	Big Bear City

175	40559 Ironwood Drive	Pad-mounted Transformer	Big Bear City
176	850 Sky High Drive	Pad-mounted Transformer	Big Bear City
177	882 Sky High Drive	Pad-mounted Transformer	Big Bear City
178	798 Pine Knot Ave.	Pad-mounted Transformer	Big Bear City
179	PMS634	Pad-mounted Switch	Big Bear City
180	140 Business Center Drive	Pad-mounted Transformer	Big Bear City
181	41968 Fox Farm Road – J142	Pad-mounted Junction	Big Bear City
182	41968 Fox Farm Road – T140	Pad-mounted Transformer	Big Bear City
183	41939 Fox Farm Road	Pad-mounted Transformer	Big Bear City
184	PMS641	Pad-mounted Switch	Big Bear City
185	42126 Big Bear Blvd. – T143	Pad-mounted Transformer	Big Bear City
186	42007 Fox Farm Road – T138	Pad-mounted Transformer	Big Bear City
187	41922 Fox Farm Road – T137	Pad-mounted Transformer	Big Bear City
188	42282 Castle Crag Road	Pad-mounted Transformer	Big Bear City
189	42232 Castle Crag Road	Pad-mounted Transformer	Big Bear City
190	42252 Eagle Ridge	Pad-mounted Transformer	Big Bear City
191	439 Eagle Lake Place	Pad-mounted Transformer	Big Bear City
192	440 Windsong Place	Pad-mounted Transformer	Big Bear City
193	477 Windsong Place	Pad-mounted Transformer	Big Bear City
194	42324 Eagle Ridge	Pad-mounted Transformer	Big Bear City
195	42329 Eagle Ridge	Pad-mounted Junction	Big Bear City
196	419 Starlight Circle	Pad-mounted Transformer	Big Bear City
197	400 Starlight Circle	Pad-mounted Junction	Big Bear City

III. Field Inspection - Violations List

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

GO 95, Rule 51.6-A, 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 BVES poles were damaged and/or missing:

- Pole west of 5092BV
- Pole west of 5090BV
- 5094BV
- Pole next of 5097 BV with 1104 sign
- 5098BV
- 5374BV
- 5604BV
- 27586CIT
- 3423BV
- 4971BV
- 9821BV
- 9684BV
- 9823BV
- 9687BV
- 9688BV
- 12493BV
- 9689BV
- 8307BV
- 6070BV
- 6069BV
- 6075BV
- 7607BV
- 7606BV
- 6529BV

General Order 95, Rule 37 - Minimum Clearances of Wires above Railroads, Thoroughfares, Buildings, Etc., Table 1, Case 14, Column E requires the minimum radial clearance of bare supply conductors of 750-22,500 Volts from vegetation in the Fire Threat District to be 48 inches.

BVES primary conductors attached to Pole number 5371BV had less than 48 inches radial clearance from vegetation.

GO 95, Rule 56.2, Uses (Guy Wires), 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.

BVES down guy wires attached to each of the following poles was not taut:

- 11885BV
- 13280BV
- 9687BV
- 13347BV
- 12127BV

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.

GO 95, Rule 84.6-B, Ground Wires, states in part:

Ground wires, other than lightning protection wires not attached to equipment or ground wires on grounded structures, shall be covered by metal pipe or suitable covering of wood or metal, or of plastic conduit material as specified in Rule 22.8–A, for a distance above ground sufficient to protect against mechanical injury, but in no case shall such distance be less than 7 feet.

The ground moulding on each of the following poles was damaged and/or missing:

- Pole west of 5090BV
- 5093BV
- 5373BV
- 27582CIT
- 27583CIT
- 3418BV
- 3419BV
- 11062BV
- 3423BV
- 31511CIT
- Pole next to 12155BV
- 8525BV

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 “eye” of the BVES down guy anchor attached to each of the following poles was buried:

- The pole next to 5097BV with a 1104 sign on it.
- 31747CIT
- 31511CIT
- 9823BV

GO 95, Rule 91.3-C, 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.

The pole steps supported on each of the following poles were too low:

- 5092BV
- 5093BV
- 3419BV
- 3420BV
- 11063BV
- 31522CIT

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.

The ground cover next to pad-mounted transformer T138 did not have any bolts to securely close it.