

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



October 7, 2021

CA2021-909

Amy Warshauer
Manager – Government & External Affairs
Frontier Communications
2535 West Hillcrest Drive
Newbury, CA 91320

SUBJECT: Audit of Frontier's Orange County Region

Ms. Warshauer:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission, Stacey Ocampo and Richard Le of my staff conducted a Communication Infrastructure Provider (CIP) audit of Frontier's Orange County Region from August 2, 2021 to August 6, 2021. The audit included a review of Frontier's records and field inspections of Frontier'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 November 8, 2021, by electronic or hard copy, of all corrective measures taken by Frontier to remedy and prevent such violations.

If you have any questions concerning this audit, please contact Stacey Ocampo at (213) 266-4712 or Stacey.Ocampo@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: CPUC Audit Findings

Cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC
Nika Kjensli, Program Manager, Electric Safety and Reliability Branch, CPUC
Majed Ibrahim, Senior Utilities Engineer, Electric Safety and Reliability Branch, CPUC
Stacey Ocampo, Utilities Engineer, Electric Safety and Reliability Branch, 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
- Pole loading calculations
- Frontier's Overhead Lines Maintenance Plan
- Frontier's Visual Inspections of Overhead Lines

II. Field Inspection

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

No.	Structure Number	Type of Structure	City
1	5200 Heil Avenue	Pole	Huntington Beach
2	2021545E	Pole	Huntington Beach
3	1851262E	Pole	Huntington Beach
4	GT7928	Pole	Huntington Beach
5	1851261E	Pole	Huntington Beach
6	2050512E	Pole	Huntington Beach
7	2049952E	Pole	Huntington Beach
8	1220131E	Pole	Huntington Beach
9	1220132E	Pole	Huntington Beach
10	1348715E	Pole	Huntington Beach
11	1348708E	Pole	Huntington Beach
12	1348709E	Pole	Huntington Beach
13	C142341Y	Pole	Huntington Beach
14	FTR127455	Pole	Huntington Beach
15	645382E	Pole	Huntington Beach
16	FTR127454	Pole	Huntington Beach
17	645383E	Pole	Huntington Beach
18	645384E	Pole	Huntington Beach
19	2249385E	Pole	Huntington Beach
20	628 Geneva Avenue	Pole	Huntington Beach
21	2340302E	Pole	Huntington Beach
22	4076798E	Pole	Huntington Beach
23	1396507E	Pole	Huntington Beach
24	23402505E	Pole	Huntington Beach
25	4076475E	Pole	Huntington Beach
26	295 Broadway Street	Vault	Laguna Beach
27	VZ98844	Pole	Laguna Beach
28	GT210862	Pole	Laguna Beach
29	1039796E	Pole	Laguna Beach
30	785425E	Pole	Laguna Beach
31	785324E	Pole	Laguna Beach
32	4170132E	Pole	Laguna Beach
33	D2080Y	Pole	Laguna Beach
34	D2081Y	Pole	Laguna Beach

35	P26015	Pole	Laguna Beach
36	P26016	Pole	Laguna Beach
37	P26014	Pole	Laguna Beach
38	P321604	Pole	Laguna Beach
39	P27912	Pole	Laguna Beach
40	P26013	Pole	Laguna Beach
41	22483	Pole	Laguna Beach
42	P27483	Pole	Laguna Beach
43	P26012	Pole	Laguna Beach
44	P28314	Pole	Laguna Beach
45	1314399	Pole	Alamitos
46	B9772Y	Pole	Alamitos
47	B9773Y	Pole	Alamitos
48	B9774Y	Pole	Alamitos
49	B9775Y	Pole	Alamitos
50	1023663E	Pole	Alamitos
51	1973454E	Pole	Alamitos
52	2160188E	Pole	Alamitos
53	961718E	Pole	Alamitos
54	2160042E	Pole	Alamitos
55	4417802E	Pole	Alamitos
56	863710E	Pole	Alamitos
57	2192195E	Pole	Alamitos
58	210952E	Pole	Alamitos
59	1932931E	Pole	Alamitos
60	1684268E	Pole	Alamitos
61	4538789E	Pole	Westminster
62	1537064E	Pole	Westminster
63	4579422E	Pole	Westminster
64	2050684E	Pole	Westminster
65	4579421E	Pole	Westminster
66	4569849E	Pole	Westminster
67	2051062E	Pole	Westminster
68	1098702E	Pole	Westminster
69	1183198E	Pole	Westminster
70	1183199E	Pole	Westminster
71	41742145E	Pole	Westminster
72	GT23292	Pole	Westminster
73	GT23290	Pole	Westminster
74	GT123289	Pole	Westminster

75	1521590E	Pole	Westminster
76	1521589E	Pole	Westminster
77	1521591E	Pole	Westminster
78	1521592E	Pole	Westminster
79	143223Y	Pole	Westminster
80	908875E	Pole	Slater
81	1220452E	Pole	Slater
82	1369999E	Pole	Slater
83	4322645E	Pole	Slater
84	1503044E	Pole	Slater
85	1503206E	Pole	Slater
86	1503207E	Pole	Slater
87	2192047E	Pole	Slater
88	2280699E	Pole	Slater
89	1503209E	Pole	Slater
90	1503210E	Pole	Slater
91	4701715E	Pole	Slater
92	1039578E	Pole	Slater
93	1039706E	Pole	Slater
94	103579E	Pole	Slater
95	C142884Y	Pole	Slater
96	1039707E	Pole	Slater
97	1729180E	Pole	Slater
98	4151834E	Pole	Slater
99	1396297E	Pole	Midway City
100	1396298E	Pole	Midway City
101	1392699E	Pole	Midway City
102	1396300E	Pole	Midway City
103	1425819E	Pole	Midway City
104	1729661E	Pole	Midway City
105	2192552E	Pole	Midway City
106	356366E	Pole	Midway City
107	1347157E	Pole	Midway City
108	1347156E	Pole	Midway City
109	469568E	Pole	Midway City
110	C6372Y	Pole	Midway City
111	8971 Warner Avenue	Pole	Huntington Beach
112	VZ88267	Pole	Huntington Beach
113	GT73616	Pole	Huntington Beach

114	GT122077	Pole	Huntington Beach
115	8551 Warner Ave	Pole	Huntington Beach
116	GT115553	Pole	Huntington Beach
117	GT115602	Pole	Huntington Beach
118	1454608E	Pole	Huntington Beach
119	1454609E	Pole	Huntington Beach
120	1454610E	Pole	Huntington Beach
121	1454611E	Pole	Huntington Beach
122	1454612E	Pole	Huntington Beach
123	1454613E	Pole	Huntington Beach
124	1425863E	Pole	Huntington Beach
125	1425864E	Pole	Huntington Beach
126	1670865E	Pole	Huntington Beach
127	1670863E	Pole	Huntington Beach
128	1521555E	Pole	Huntington Beach
129	1521556E	Pole	Huntington Beach
130	1521557E	Pole	Huntington Beach
131	1520952E	Pole	Huntington Beach
132	1520951E	Pole	Huntington Beach
133	1520953E	Pole	Huntington Beach
134	1928638E	Pole	Huntington Beach
135	1928637E	Pole	Huntington Beach
136	1928636E	Pole	Huntington Beach
137	1928635E	Pole	Huntington Beach
138	881	Vault	Huntington Beach
139	6391 E Pacific Coast Highway	Handhole	Long Beach
140	266G	Manhole	Long Beach
141	Across from 6405 2ND Street	Handhole	Long Beach
142	6391 E Pacific Coast Highway	Handhole	Long Beach
143	21	Manhole	Long Beach
144	587G	Manhole	Long Beach
145	HH12	Manhole	Long Beach
146	HH11	Manhole	Long Beach
147	HH41	Handhole	Long Beach
148	HH48	Handhole	Long Beach
149	HH16	Handhole	Long Beach
150	HH15	Handhole	Long Beach
151	420	Vault	Huntington Beach
152	Front of 5422 Argosy Avenue	Handhole	Huntington Beach
153	Front of 5482 Argosy Avenue	Handhole	Huntington Beach

III. 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.

Frontier's facilities on each of the following poles required maintenance:

- 2192551E – Frontier lashing wire was broken.
- 1183198E – Frontier pole mounted terminal was not properly attached to pole.

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.

The Frontier down guy wire attached to each of the following poles was not taut:

- 1039796E
- P26016
- 1520952E

General Order 95, Rule 84.4-G – Clearances From Guys And Messengers, Table 2, Case 19, Column C, requires a minimum of 3 inches radial separation between communication cables and guy wires.

- The radial separation between Frontier communications conductors and a third-party communications guy wire on pole 1503206E was less than 3 inches.

GO 95, 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 Frontier down guy wire on pole 1521592E was abandoned but not removed.

GO 95, Rule 87.7-D1, Covered from Ground Level to 8 Feet above the Ground, states in part:

Risers shall be protected from the ground level to a level not less than 8 feet above the ground by:

b) Non-metallic conduit or rigid U-shaped moulding. Such conduit or moulding shall be of material as specified in Rule 22.8.

The conduit for Frontier riser attached to each of the following poles was damaged or missing:

- 645382E
- FTR127454
- 2249385E
- 2340302E
- P28314
- C142341Y
- B9773Y
- 1973454E
- 4151834E
- 1928638E
- 1928635E
- 2340255E
- 1023663E
- 2160118E
- 961718E
- 1684268E

GO 95, Rule 38 - Minimum Clearances of Wires from Other Wires, Table 2, Column C, Case 8, requires the minimum vertical clearance of “Communication Conductors (Including Open Wire, Cables and Service Drops),” and “Communication Conductors and Supply Drops” supported on the same pole to be 12 inches.

The vertical separation between Frontier communications conductors and a third-party communications conductor on each of the following poles was less than 12 inches:

- 1220132E
- 210952E

General Order 95, Rule 84.8-D4, Clearances between Conductors, states:

The radial clearance between communication service drop conductors and supply service drop conductors may be less than 48 inches as specified in Table 2, Column C, Cases 4 and 9; Column D, Cases 3 and 8, but shall be not less than 24 inches. Where within 15 feet of the point of attachment of either service drop on a building, this clearance may be further reduced but shall be not less than 12 inches.

- The radial separation between a Frontier communications service drop and an SCE supply service drop on pole 4076798E was less than 12 inches within 15 feet away from the point of attachment.

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 attached to the following poles was damaged or missing:

- GT7928
- 1348715E
- B9772Y
- 1928637E
- 143223Y

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 following Frontier underground facilities were not maintained for their intended use:

- The handhole cover located in front of 5422 Argosy Avenue was not properly secured and had a rope tied around the lid.