

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



September 18, 2023

CA2023-1163

Judy Geise
Manager- Compliance
Frontier
356 H Street
Crescent City, CA 95531

SUBJECT: Communications Infrastructure Provider (CIP) Audit of Frontier's Crescent City/Garberville/Leggett Service Area

Mrs. Geise:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Dmitriy Lysak of ESRB staff conducted an CIP audit of Frontier's Crescent City/Garberville/Leggett Service Area from July 10, 2023 through July 14, 2023. During the audit, ESRB staff conducted field inspections of Frontier's facilities and equipment and reviewed pertinent documents and records.

As a result of the audit, ESRB staff identified violations of General Order (GO) 95 and GO 128. A copy of the audit findings itemizing the violations and observations is enclosed.

Please provide a response no later than October 16, 2023, via electronic copy of all corrective actions and preventive measures taken by Frontier to correct the identified violations and prevent the recurrence of such violations and observations.

If you have any questions concerning this audit, please contact Dmitriy Lysak at (415) 940-4423 or dmitriy.lysak@cpuc.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Rickey Tse'.

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

Enclosure: CPUC Audit Findings of Frontier Crescent City/Garberville/Leggett Service Area

Cc: Lee Palmer, Director, Safety and Enforcement Division (SED), CPUC
Nika Kjensli, Program Manager, ESRB, SED, CPUC
Fadi Daye, Program and Project Supervisor, ESRB, SED, CPUC
Nathan Sarina, Senior Utilities Engineer (Supervisor), ESRB, SED, CPUC
Dmitriy Lysak, Utilities Engineer, ESRB, SED, CPUC

**CPUC AUDIT FINDINGS OF
FRONTIER CRESCENT CITY/GARBERVILLE/LEGGETT SERVICE AREA
JULY 10 – 14, 2023**

I. Records Review

During the audit, Electric Safety and Reliability Branch (ESRB) staff reviewed the following records:

- Frontier California’s Outside Plant Maintenance, Inspection, and Repair Programs, General Order (GO) 95/128 Inspection and Maintenance Program
- Frontier’s Quality Inspection Program
- Frontier Crescent City/Garberville/Leggett Facility Statistics as of June 2023, including miles of overhead lines, miles of underground lines, number of poles, number of vaults, and number of pedestals.
- Frontier Crescent City/Garberville/Leggett Facility Maps as of June 2023.
- Frontier Crescent City/Garberville/Leggett Service Area Work Order List containing data of facility locations, overhead or underground facility types, identified deficiencies, repair priority levels, corrective action due dates, and work completion dates from January 2018 through January 2023.
- Frontier Crescent City/Garberville/Leggett Service Area Inspection Data containing data for the inspected facility type, facility location, fire threat district location, inspection date, and resulting inspection findings from January 2018 through January 2023.
- Safety Hazards Notifications Frontier Received from Third Party Utilities from January 2018 through January 2023.
- Safety Hazard Notifications Frontier Sent to Third Party Utilities from January 2018 through January 2023.
- Frontier Crescent City/Garberville/Leggett Service Area Pole Loading Analysis Projects List from January 2018 through January 2023.
- Frontier Crescent City/Garberville/Leggett Valley Service Area intrusive pole tests from January 2018 through January 2023.
- Frontier Crescent City/Garberville/Leggett Service Area construction projects from January 2022 through January 2023.

II. Records Violations

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

1. General Order (GO) 95, Rule 18-B(1)(a) 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.”*

Frontier’s GO 95 Inspection and Maintenance Program adheres to General Order 95, Rule 18 timeliness to correct any nonconformance.

- **Repair Category 1:** Take action immediately (within 24 hours), either by fully repairing the condition, or by temporarily repairing and reclassifying the condition to a lower priority.
- **Repair Category 2A:** 6 months from inspection date for a nonconformance that compromises worker safety or create a fire risk and are located in an Extreme High Fire Threat Zone (Tier3)
- **Repair Category 2B:** 12 months from inspection date for a nonconformance in a Very High Fire Threat Zone (Tier2)
- **Repair Category 2C:** 36 months from inspection date.
- **Repair Category 3:** 60 months from inspection date.

ESRB’s review of Frontier’s work orders submitted for the period from January 2018 through January 2023 found that Frontier had a total of 67 late work orders, including 44 late-closed work orders and 23 late-pending work orders in the Crescent City/Garberville/Leggett Service Area.

Table 1 below lists the late work orders in the Crescent City/Garberville/Leggett Service Area by different hazard levels.

Table 1: Late Work Orders in Crescent City/Garberville/Leggett Service Area

| Repair Category | Late-Closed Work Orders | Late-Pending Work Orders | Total |
|------------------------|--------------------------------|---------------------------------|--------------|
| 1 | - | 1 | 1 |
| 2A | 4 | 6 | 10 |
| 2B | 30 | 16 | 46 |
| 2C | 10 | - | 10 |
| 3 | - | - | - |
| Total | 44 | 23 | 67 |

Late-closed work orders are those completed past their assigned due dates based on their repair categories, and late-pending work orders are those that had not been completed, as of June 12, 2023, by their assigned due dates based on their repair categories. Frontier is required to mitigate late work order issues, including completing any late-pending work orders.

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

(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.*

GO 95, Rule 21.2.D, High Fire-Threat District states:

High Fire-Threat District means those areas comprised of the following:

- (1) Zone 1 is Tier 1 of the latest version of the United States Forest Service (USFS) and CAL FIRE’s joint map of Tree Mortality High Hazard Zones*

- (HHZs). (Note: The Tree Mortality HHZs Map may be revised regularly by the USFS and CAL FIRE.)
- (2) Tier 2 is Tier 2 of the CPUC Fire-Threat Map.
- (3) Tier 3 is Tier 3 of the CPUC Fire-Threat Map.

Note: In accordance with Ordering Paragraph 7 of D.17-01-009, the above-referenced mapping products are available on the Commission’s website at: www.cpuc.ca.gov/FireThreatMap

Frontier’s *Frontier California’s Outside Plant Maintenance, Inspection, and Repair Programs* procedure states that nonconformances that compromise worker safety or create a fire risk in Extreme High Fire Threat Zones only in Southern California require corrective action within six months. The current January 2020 version of GO 95 does not have different corrective action priority requirements between Northern California and Southern California. Frontier’s procedure also lists an Extreme High Fire Threat Zone as Tier 1. In GO 95, Rule 21.2.D, an area with an extreme fire risk is defined as a Tier 3 High Fire Threat District. Frontier must update its procedure to reflect the requirements in the latest version of GO 95.

III. Field Inspection

During the field inspection, ESRB inspected the following facilities:

| Location # | Structure Type | Address | City |
|------------|----------------|------------------|---------------|
| 1 | Pole | 1609 Macken | Crescent City |
| 2 | Pole | 1557 Macken | Crescent City |
| 3 | Pole | 1535 Macken | Crescent City |
| 4 | Pole | 1734 Macken | Crescent City |
| 5 | Pole | 1516 Macken | Crescent City |
| 6 | Pole | 1610 Macken | Crescent City |
| 7 | Pole | 1610 Macken | Crescent City |
| 8 | Pole | 222 North Pebble | Crescent City |
| 9 | Pedestal | 262 North Pebble | Crescent City |
| 10 | Pedestal | 1657 Lauff | Crescent City |
| 11 | Pole | 1644 Lauff | Crescent City |
| 12 | Pole | 1617 Lauff | Crescent City |
| 13 | Pole | 1550 Margie | Crescent City |
| 14 | Pole | 575 Pacific | Crescent City |
| 15 | Pole | 555 Pacific | Crescent City |
| 16 | Pole | 505 Pacific | Crescent City |
| 17 | Pole | 505 Pacific | Crescent City |
| 18 | Pole | 512 Pacific | Crescent City |
| 19 | Pole | 594 Pacific | Crescent City |

| | | | |
|-----------|----------|-----------------------------|---------------|
| 20 | Pole | 594 Pacific | Crescent City |
| 21 | Pole | 625 Macken | Crescent City |
| 22 | Pole | 645 Macken | Crescent City |
| 23 | Pole | 201 Fresno | Crescent City |
| 24 | Pole | 992 Hamilton | Crescent City |
| 25 | Pole | 645 Hamilton | Crescent City |
| 26 | Pole | 215 Dream | Crescent City |
| 27 | Pedestal | 215 Dream | Crescent City |
| 28 | Pedestal | 205 Dream | Crescent City |
| 29 | Pedestal | 195 Dream | Crescent City |
| 30 | Pedestal | 190 Dream | Crescent City |
| 31 | Pole | 980 El Dorado | Crescent City |
| 32 | Pole | 987 El Dorado | Crescent City |
| 33 | Pole | 4321 Donna Declue | Crescent City |
| 34 | Pole | 4321 Donna Declue | Crescent City |
| 35 | Pole | 4551 Wonder Stump | Crescent City |
| 36 | Pole | 4551 Wonder Stump | Crescent City |
| 37 | Pole | 4321 Wonder Stump | Crescent City |
| 38 | Pole | 3920 Wonder Stump | Crescent City |
| 39 | Pole | 111 Mobile | Crescent City |
| 40 | Pole | 101 Mobile | Crescent City |
| 41 | Pole | 3845 Vivienne | Crescent City |
| 42 | Pole | 3835 Vivienne | Crescent City |
| 43 | Pole | 3831 Vivienne | Crescent City |
| 44 | Pole | 3984 Redwood | Garberville |
| 45 | Pole | Briceland and Perry Meadow | Garberville |
| 46 | Pole | Briceland and Perry Meadow | Garberville |
| 47 | Pole | Briceland Rd | Garberville |
| 48 | Pole | Briceland Rd | Garberville |
| 49 | Pole | Briceland Rd | Garberville |
| 50 | Pole | Briceland Rd | Garberville |
| 51 | Pole | 310 Bushnell | Garberville |
| 52 | Pole | 313 Bushnell | Garberville |
| 53 | Pole | 355 Bushnell | Garberville |
| 54 | Pole | 355 Bushnell | Garberville |
| 55 | Pole | Country Yard and Alderpoint | Garberville |
| 56 | Pole | 355 Timber | Garberville |
| 57 | Pole | 86 Arthur | Garberville |
| 58 | Pole | 101 Arthur | Garberville |
| 59 | Pole | 212 Arthur | Garberville |
| 60 | Pole | 211 Arthur | Garberville |
| 61 | Pole | 554 Maple | Garberville |
| 62 | Pole | 823 Miller | Garberville |
| 63 | Pole | 824 Miller | Garberville |
| 64 | Pole | 507 Maple | Garberville |

| | | | |
|------------|------|--------------------------------------|-------------|
| 65 | Pole | 485 Maple | Garberville |
| 66 | Pole | 486 Maple | Garberville |
| 67 | Pole | 474 Maple | Garberville |
| 68 | Pole | 791 Locust | Garberville |
| 69 | Pole | 795 Locust | Garberville |
| 70 | Pole | 763 Locust | Garberville |
| 71 | Pole | 3885 Sprowl Creek | Garberville |
| 72 | Pole | 3765 Sprowl Creek | Garberville |
| 73 | Pole | 3765 Sprowl Creek | Garberville |
| 74 | Pole | 4925 Benbow | Garberville |
| 75 | Pole | 4925 Benbow | Garberville |
| 76 | Pole | 4925 Benbow | Garberville |
| 77 | Pole | 4925 Benbow | Garberville |
| 78 | Pole | 75000 US-101 | Leggett |
| 79 | Pole | 75000 US-101 | Leggett |
| 80 | Pole | Roswarm Rd | Leggett |
| 81 | Pole | Roswarm Rd | Leggett |
| 82 | Pole | Roswarm Rd | Leggett |
| 83 | Pole | 75001 US-101 World Famous Tree House | Leggett |
| 84 | Pole | 1 pole south of #83 | Leggett |
| 85 | Pole | 1 pole south of #84 | Leggett |
| 86 | Pole | 1 pole south of #85 | Leggett |
| 87 | Pole | 1 pole south of #86 | Leggett |
| 88 | Pole | 1 pole south of #87 | Leggett |
| 89 | Pole | 1 pole south of #88 | Leggett |
| 90 | Pole | 69501 US-101 Peg House Gift Shop | Leggett |
| 91 | Pole | 1 pole east of #90 | Leggett |
| 92 | Pole | 2 pole east of #91 | Leggett |
| 93 | Pole | 3 pole east of #92 | Leggett |
| 94 | Pole | 4 pole east of #93 | Leggett |
| 95 | Pole | 5 pole east of #94 | Leggett |
| 96 | Pole | 67674 CA-271 | Leggett |
| 97 | Pole | 67660 Drive Through Tree | Leggett |
| 98 | Pole | 67660 Drive Through Tree | Leggett |
| 99 | Pole | 67670 CA-271 | Leggett |
| 100 | Pole | 67650 CA-271 | Leggett |
| 101 | Pole | 67664 CA-271 | Leggett |
| 102 | Pole | 66150 Drive Through Tree | Leggett |
| 103 | Pole | 1 pole north of 102 | Leggett |
| 104 | Pole | 1 pole north of 103 | Leggett |
| 105 | Pole | 65901 CA-271 | Leggett |

IV. Field Inspection Violations

ESRB identified 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.”

ESRB’s findings are listed in Table 2:

Table 2: GO 95, Rule 31.1 Findings

| Location # | Findings |
|-------------------|--|
| 4 | Equipment needs to be transferred from buddy pole to new pole. |
| 17 | Slack down guy. |
| 38 | Damaged lashing wire. |
| 41 | Damaged lashing wire. |
| 58 | Damaged lashing wire. |
| 78 | Equipment needs to be transferred from buddy pole to new pole. |
| 94 | Slack down guy. |
| 98 | Missing down guy. |
| 103 | Damaged lashing wire. |
| 105 | Equipment disconnected from pole. |

2. GO 95, Rule 31.6, Abandoned Lines states:

“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.”

ESRB’s findings are listed in Table 3:

Table 3: GO 95, Rule 31.6 Findings

| Location # | Findings |
|------------|-------------------------|
| 32 | Abandoned service drop. |
| 41 | Abandoned service drop. |
| 42 | Abandoned service drop. |
| 43 | Abandoned service drop. |
| 54 | Abandoned service drop. |
| 63 | Abandoned service drop. |
| 65 | Abandoned service drop. |
| 92 | Abandoned service drop. |
| 93 | Abandoned service drop. |
| 101 | Abandoned service drop. |
| 103 | Abandoned service drop. |

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

“Communication and electric supply circuits, energized at 750 volts or less, including their service drops, should be kept clear of vegetation in new construction and when circuits are reconstructed or repaired, whenever practicable. 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). For the purpose of this rule, abrasion is defined as damage to the insulation resulting from the friction between the vegetation and conductor. Scuffing or polishing of the insulation or covering is not considered abrasion. Strain on a conductor is present when vegetation contact significantly compromises the structural integrity of supply or communication facilities. Contact between vegetation and conductors, in and of itself, does not constitute a nonconformance with the rule.”

ESRB’s findings are listed in Table 4:

Table 4: GO 95, Rule 35 Findings

| Location # | Findings |
|------------|---|
| 58 | Tree branch strain and abrasion on cable. |
| 78 | Fallen branch on cable. |

4. GO 95, Rule 37, Table 1, Case No. 5B requires the following:

Vertical clearance of communication conductors above ground along thoroughfares in rural districts must be at least 15 feet.

ESRB's finding is listed in Table 5:

Table 5: GO 95, Rule 37 Finding

| Location # | Finding |
|------------|---|
| 103 | Cable span above road measured only 14 feet above ground. |

5. GO 95, Rule 38, Table 2, Case 16 requires the following:

16c. Radial separation of conductors on same crossarm, pole or structure between conductors, taps or lead wires of different circuits requires at least three inches of separation from communication conductors.

16d. Radial separation of conductors on same crossarm, pole or structure between conductors, taps or lead wires of different circuits requires at least eleven and one half inches of separation from service drops between 0-750 volts.

ESRB's findings are listed in Table 6:

Table 6: GO 95, Rule 38 Findings

| Location # | Findings |
|------------|--|
| 23 | Frontier communication conductors in contact with different companies' communication circuits. |
| 31 | Frontier communication conductors in contact with different companies' communication circuits. |

6. GO 95, Rule 38, Table 2, Case 18.C requires the following:

Radial separation between guys and span wires passing conductors supported on the same poles requires at least three inches of separation from communication conductors.

ESRB’s finding is listed in Table 7:

Table 7: GO 95, Rule 38 Finding

| Location # | Finding |
|------------|--|
| 48 | Frontier communication conductor in contact with down guy. |

7. GO 95, Rule 84.6.B, Ground Wires states:

“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. Such covering may be omitted providing the ground wire in this 7 foot section has a mechanical strength at least equal to the strength of No. 6 AWG medium–hard–drawn copper.

Portions of ground wires which are on the surface of wood poles and within 6 feet vertically of unprotected supply conductors supported on the same pole, shall be covered with a suitable protective covering (see Rule 22.8).”

ESRB’s findings are listed in Table 8:

Table 8: GO 95, Rule 84.6 Findings

| Location # | Findings |
|------------|-------------------------------|
| 14 | Exposed vertical ground wire. |
| 18 | Exposed vertical ground wire. |
| 37 | Exposed vertical ground wire. |
| 48 | Exposed vertical ground wire. |

8. GO 95, Rule 87.7-D(1), Risers, Covered from Ground Level to 8 Feet above the Ground states:

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

- a) Securely or effectively grounded iron or steel pipe (or other covering at least of equal strength). When metallic sheathed cable rising from underground non-metallic conduit is protected by*

metallic pipe or moulding, such pipe or moulding shall be effectively grounded as specified in Rule 21.4-A, or

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

ESRB’s findings are listed in Table 9:

Table 9: GO 95, Rule 87.7 Findings

| Location # | Findings |
|-------------------|---|
| 57 | Riser is not properly attached to pole. |
| 59 | Riser is not properly attached to pole. |

9. GO 128, Rule 42.7, Covers states:

“Manholes and handholes, 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 arrangement shall be such that a tool or appliance shall be required for their opening and cover removal (Also See Rule 17.8 and Appendix B, Figure 9).”

ESRB’s findings are listed in Table 10:

Table 10: GO 128, Rule 42.7 Finding

| Location # | Finding |
|-------------------|-----------------------------------|
| 9 | Enclosure is rusted and corroded. |

V. Observations

1. GO 95, Rule 18-A, Resolution of Potential Violations of General Order 95 and Safety Hazards states in part:

(2) “Where a communications company’s or an electric utility’s (Company A’s) actions result in potential violations of GO 95 for another entity (Company B), that entity’s (Company B’s) remedial action will be to transmit a single documented notice of identified potential violations to the communications company or electric utility (Company A) within a reasonable amount of time not to exceed 180 days after the entity discovers the potential violations of GO 95. If the potential violation

constitutes a Safety Hazard, such notice shall be transmitted within ten (10) business days after the entity discovers the Safety Hazard.

- (3) If a company, while performing inspections of its facilities, discovers a Safety Hazard(s) on or near a communications facility or electric facility involving another company, the inspecting company shall notify the other entity of such Safety Hazard(s) no later than ten (10) business days after the discovery.*

- (4) To the extent a company that has a notification requirement under (2) or (3) above cannot determine the facility owner/operator, it shall contact the pole owner(s) within ten (10) business days if the subject of the notification is a Safety Hazard, or otherwise within a reasonable amount of time not to exceed 180 days after discovery. The notified pole owner(s) shall be responsible for promptly (normally not to exceed five business days) notifying the company owning/operating the facility if the subject of the notification is a Safety Hazard, or otherwise within a reasonable amount of time not to exceed 180 days, after being notified of the potential violation of GO95.”*

Table 11 includes all non-Frontier (third-party) findings that ESRB observed during the audit:

Table 11: Observations

| Location # | Findings |
|-------------------|--|
| 3 | Communications service riser not attached to pole. |
| 14 | Communications riser conduit not attached to pole. |
| 15 | Communications service riser not attached to pole. |
| 57 | Communications service riser not attached to pole. |
| 59 | Communications service riser not attached to pole. |
| 64 | Communications service riser not attached to pole |