STATE OF CALIFORNIA GAVIN C. NEWSOM., *Governor*

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

May 3, 2024 EA2024-1180

Ms. Cindy Sauers
Electric Utility Director
Ukiah Electric Department
300 Seminary Avenue
Ukiah, CA 95482

SUBJECT: Electric Distribution Facilities Audit of City of Ukiah

Ms. Sauers:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Dmitriy Lysak and Monica Hoskins of ESRB staff conducted an electric distribution audit of City of Ukiah from February 20 through February 23, 2024. During the audit, ESRB staff conducted field inspections of Ukiah's distribution facilities and equipment and reviewed pertinent documents and records.

As a result of the audit, ESRB staff identified violations of General Order (GO) 95, GO 128, and GO 165. A copy of the audit findings itemizing the violations and observations is enclosed. Please provide a response no later than May 31, 2024, via electronic copy of all corrective actions and preventive measures taken by City of Ukiah to correct the identified violations and prevent the recurrence of such violations. Please note that ESRB will be posting the audit report and your response to our audit on the CPUC website. If there is any information in your response that you would like us to consider as confidential, we request that in addition to your confidential response, you provide us with a public version (a redacted version of your confidential response) to be posted on our website.

If you have any questions concerning this audit, please contact Monica Hoskins at (415) 652-1847 or monica.hoskins@cpuc.ca.gov.

Sincerely,

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

California Public Utilities Commission

Enclosure: CPUC Electric Distribution Audit Report for City of Ukiah

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
Yi (Rocky) Yang, Senior Utilities Engineer (Supervisor), ESRB, SED, CPUC
Monica Hoskins, Utilities Engineer, ESRB, SED, CPUC

CITY OF UKIAH
ELECTRIC DISTRIBUTION AUDIT FINDINGS
FEBRUARY 20 – 23, 2024

I. Records Review

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

- City of Ukiah Overhead/Underground Preventative Maintenance Program
- Overhead and underground facilities statistics.
- Completed work orders with notifications, canceled work orders with notifications, and open work orders with notifications from December 2018 to December 2023.
- Patrol and detailed inspection records from December 2018 to December 2023.
- Reliability metrics and sustained outages from December 2018 to December 2023.
- City of Ukiah system map.
- New Construction projects (both overhead and underground) from December 2022 to December 2023.
- Pole loading and safety factor calculations completed from December 2022 to December 2023.
- Inspector list from December 2018 to December 2023 and inspector qualifications.
- Equipment test records from December 2018 to December 2023.
- Intrusive inspection records from January 2018 to December 2023.

II. Records Violations

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

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 GO 95.

   (5) A company receiving a notification under (2), (3), or (4) above shall take appropriate corrective action consistent with the provisions of this rule. For at least ten (10) years, the documentation of the notice shall be maintained by both the notifying and receiving parties and documentation of the correction shall be maintained by the receiving party."

   City of Ukiah has not maintained a record of notifications sent to third parties. City of Ukiah shall start documenting any incoming or outgoing third party notifications.

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

   "Each company (including electric utilities and communications companies) shall establish and implement an auditable maintenance program for its facilities and lines for the purpose of ensuring that they are in good condition so as to conform to these rules. Each company must describe in its auditable maintenance program the required qualifications for the company representatives who perform inspections and/or who schedule corrective actions. Companies that are subject to GO 165 may

maintain procedures for conducting inspections and maintenance activities in compliance with this rule and with GO 165.

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."*

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.

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."

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."

ESRB staff reviewed work orders completed within the City of Ukiah for the past 60 months (December 2018 – December 2023). City of Ukiah's Preventative Maintenance program defines the priority codes and associated time frames for the response/repair action as follows:

Priority 1 Immediate Hazard – Priority 1 Conditions are those that may affect the integrity of the system or present a hazard to workers or the general public. All Priority #1 Tags will be responded to immediately, and appropriate action taken until the hazardous condition is remedied.

Priority 2 Non-emergency repair condition – Priority 2 Conditions are those that require maintenance that can be scheduled to maintain the integrity of the system. Priority #2 Tags will be prioritized by urgency and will be scheduled to have appropriate repairs made to correct the condition within 6 months, where practicable.

Priority 3 & 4 Non-emergency repair condition – Conditions are those that do not present a situation that could jeopardize the safety of the system, workmen and the general public. Either Priority #3 or #4 tags will be issued by the inspector with the time interval recommended. In the judgment of the inspector, work will be scheduled to be completed either in 1year for Priority # 3 tags or 3 years for priority #4 tags.

While the City of Ukiah notes the above repair timeframes in its Preventative Maintenance program and inspection forms, the priorities and timeframes are not utilized when generating work orders for repairs. A sampling of 21 Work Orders showed a variety of repair priorities including: Priority Replacement, Medium, High (within 1-4 weeks) and High Priority. The rest of the work orders did not list priority levels or due dates.

While the scale of work orders for the City of Ukiah is not very large, they should utilize the priorities noted in their Preventative Maintenance program as required by GO 95 to ensure repair timelines are consistent and required repair timeframes are kept.

As of March 5, 2024, there are 2 open work orders from 2021, 3 open work orders from 2022 and 15 open work orders from 2023.

3. **GO 165, Rule III B**, Standard 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."*

ESRB staff reviewed overhead and underground patrol and detailed inspection records from December 2018 to December 2023. The City of Ukiah's latest underground detailed inspections occurred in 2020 and exceeds the maximum 3-year interval in Table 1 of GO 165.

III. Field Inspection

During the field inspection, ESRB inspected the following facilities in Table 1:

Table 1: Field Inspection Locations

Location #	Structure ID	Structure Type	City
1	05VLYVW12	Pole	Ukiah
2	05VLYVW11	Pole	Ukiah
3	05VLYVW10	Pole	Ukiah
4	06MAPLE04	Pole	Ukiah
5	06MAPLE02	Pole	Ukiah
6	06MAPLE01	Pole	Ukiah
7	05MAPLE18	Pole	Ukiah
8	05HAZEL02	Pole	Ukiah
9	06BUSHN03	Pole	Ukiah
10	06BUSHN06	Pole	Ukiah
11	06BUSHN08	Pole	Ukiah
12	06BUSHN09	Pole	Ukiah
13	06BUSHN07	Pole	Ukiah
14	06BUSHN04	Pole	Ukiah
15	02ELMST02	Pole	Ukiah
16	02ELMST07	Pole	Ukiah
17	02ELMST08	Pole	Ukiah
18	02EMPIRE08	Pole	Ukiah
19	02STATN06	Pole	Ukiah
20	02STATN07	Pole	Ukiah
21	02STATN08	Pole	Ukiah
22	04STATN01	Pole	Ukiah
23	04ELMST02	Pole	Ukiah
24	04ELMST03	Pole	Ukiah
25	04ELMST04	Pole	Ukiah
26	09BRNSN07	Pole	Ukiah
27	00STANDW02	Pole	Ukiah
28	09STNDW01	Pole	Ukiah
29	08STNDW37	Pole	Ukiah
30	09BRNSN06	Pole	Ukiah
31	09BRNSN05	Pole	Ukiah
32	2148	Pad Mount Transformer	Ukiah
33	1889	Pad Mount Transformer	Ukiah
34	117	Junction Box	Ukiah
35	1698	Pad Mount Transformer	Ukiah
36	08LVOAK03	Pole	Ukiah
37	08LVOAK02	Pole	Ukiah

38	2304	Pad Mount Transformer	Ukiah
39	11PERKE01	Pole	Ukiah
40	11PERKE02	Pole	Ukiah
41	11PERKE04	Pole	Ukiah
42	2171	Pad Mount Transformer	Ukiah
43	12ESTLK01	Pole	Ukiah
44	12CLYSW03	Pole	Ukiah
45	12CLYSW02	Pole	Ukiah
46	12ESTLK05	Pole	Ukiah
47	12ESTLK07	Pole	Ukiah
48	13MILLW27	Pole	Ukiah
49	13SCHLS08	Pole	Ukiah
50	13SCHLS07	Pole	Ukiah
51	13SCHLS05	Pole	Ukiah
52	13SCHLS04	Pole	Ukiah
53	13SCHLS03	Pole	Ukiah
54	1697	Pad Mount Transformer	Ukiah
55	1077	Pad Mount Transformer	Ukiah
56	2344	Pad Mount Transformer	Ukiah
57	2347	Pad Mount Transformer	Ukiah
58	14MILLE01	Pole	Ukiah
59	2165	Pad Mount Transformer	Ukiah
60	14MILLE03	Pole	Ukiah
61	14MILLE11	Pole	Ukiah
62	14MILLE11	Pole	Ukiah
63	2372	Pad Mount Transformer	Ukiah
64	178	Pad Mount Transformer	Ukiah
65	2280	Pad Mount Transformer	Ukiah
66	16LUCE08	Pole	Ukiah
67	16LUCE07	Pole	Ukiah
68	16LUCE06	Pole	Ukiah
69	16LUCE05	Pole	Ukiah
70	16LUCE03	Pole	Ukiah
71	17BTTYST04	Pole	Ukiah
72	17DEBRA01	Pole	Ukiah
73	17BTTYST03	Pole	Ukiah
74	17BTTYST02	Pole	Ukiah
75	17BTTYST01	Pole	Ukiah
76	19LORRA03	Pole	Ukiah
77	19LORRA04	Pole	Ukiah
78	19LORRA05	Pole	Ukiah
79	19LORRA01	Pole	Ukiah
80	19LORRA01	Pole	Ukiah
81	17LORRA14	Pole	Ukiah
82	2007	Pad Mount Transformer	Ukiah

83	8	Underground Pedestal	Ukiah
84	7	Underground Pedestal	Ukiah
85	1994	Pad Mount Transformer	Ukiah
86	21LAURL02	Pole	Ukiah
87	669	Pad Mount Transformer	Ukiah
88	21LAURL01	Pole	Ukiah
89	21BECNL01	Pole	Ukiah
90	21BECNL02	Pole	Ukiah
91	21YOKYD09	Pole	Ukiah
92	21STATS01	Pole	Ukiah
93	21STATS02	Pole	Ukiah
94	21STATS03	Pole	Ukiah
95	23STATS11	Pole	Ukiah

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
3	Ground molding detached from pole, slack guy wire
6	Woodpecker holes at top of pole
23	Tie wire on splice on center phase
30	Woodpecker holes at top of pole
31	Woodpecker damage, pole top splitting, crossarms decaying
36	Woodpecker holes at top of pole
44	Pole top splitting, woodpecker damage
45	Woodpecker damage, pole top splitting

Location #	Findings
46	Pole top splitting, woodpecker damage
74	Pole top deterioration, loose hardware on top insulator
75	Pole top splitting, deterioration at down guy attachment
80	Woodpecker holes at top of pole

2. **GO 95, Rule 91.3C, 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."

   ESRB's findings are listed in Table 3:

Table 3: GO 95, Rule 91.3C Findings

Location #	Findings
7	Pole step too low
44	Pole step too low
49	Pole step too low

3. **GO 95, Rule 51.6, Marking and Guarding, High Voltage Marking** states:

   "A. High Voltage Marking

   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 thansix (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."

   ESRB's findings are listed in Table 4:

Table 4: GO 95, Rule 51.6 Findings

Location #	Findings
8	High Voltage sign loose
9	Missing High Voltage sign
44	Missing High Voltage sign
46	High Voltage sign damaged
47	High Voltage sign damaged
49	Missing High Voltage sign
50	Missing High Voltage sign
51	Missing High Voltage sign
61	Missing High Voltage sign
62	High Voltage sign damaged
73	High Voltage sign damaged
75	Missing High Voltage sign
78	Missing High Voltage sign
92	High Voltage sign damaged

4. **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 5:

Table 5: GO 95, Rule 84.6.B Findings

Location #	Findings
7	Exposed ground wire
22	Exposed ground wire
37	Exposed ground wire
47	Exposed ground wire
49	Exposed ground wire
50	Exposed ground wire
52	Exposed ground wire
58	Exposed ground wire, old ground abandoned
70	Exposed ground wire
72	Exposed ground wire

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

> *"Where overhead conductors traverse trees and vegetation, safety and reliability of service demand that certain vegetation management activities be performed in order to establish necessary and reasonable clearances, the minimum clearances set forth in Table 1, Cases 13 and 14, measured between line conductors and vegetation under normal conditions shall be maintained. (Also see Appendix E for tree trimming guidelines.) These requirements apply to all overhead electrical supply and communication facilities that are covered by this General Order, including facilities on lands owned and maintained by California state and local agencies."*

ESRB's findings are listed in Table 6:

Table 6: GO 95, Rule 35 Findings

Location #	Findings
3	Vegetation on guy wire above insulator
4	Vegetation on guy wire above insulator
5	Tree strain on span
13	Tree in contact with base of pole
26	Vegetation near guy wire above insulator

Location #	Findings
37	Vegetation on guy wire above insulator
39	Vegetation on guy wire above insulator
47	Overgrown vegetation
66	Overgrown vegetation
76	Strain on service drop
90	Vegetation on guy wire above insulator

6. **GO 95, Rule 86.9, Guy Marker (Guy Guard)** states:

"A substantial marker of suitable material, including but not limited to metal or plastic, not less than 8 feet in length, shall be securely attached to all anchor guys. Where more than one guy is attached to an anchor rod, only the outermost guy is required to have a marker."

ESRB's findings are listed in Table 7:

Table 7: GO 95, Rule 86.9 Findings

Location #	Findings
27	Guy guard missing visibility strips
49	Guy marker damaged
78	Guy guard missing visibility strips

7. **GO 95, Rule 49.1C, Setting of Poles** states in part:

"The depths of pole setting given in Table 6 are applicable to poles set in firm soil or in solid rock.

Where poles were set in firm soil, but the soil has since been excavated or subjected to erosion, the minimum embedment shall be no less than 90% of the values specified in Table 6.

Where, under the loading conditions in Rule 43 and the requirements of Rule 44, the resultant bearing surface is not sufficient to prevent overturning or excessive

movement of the pole at the ground line, and/or the soil is not firm, deeper settings or other special methods shall be used."

ESRB found that the set depth of the pole at location 71 does not meet the minimum pole setting depth in Table 6 of Rule 49.1C. Table 6 requires 7 feet of set depth for 55 foot poles and ESRB estimates 6.5 feet of set depth based on the pole stamp height.

8. **GO 128, Rule 35.1, Identification of Cables** states:

"Cables operating at a voltage in excess of 750 volts shall be permanently and clearly identified by tags or other suitable means to indicate their operating voltage and the circuit with which they are normally associated at each manhole or other commonly accessible location of the underground system."

ESRB's findings are listed in Table 8:

Table 8: GO 128, Rule 35.1 Findings

Location #	Findings
33	Missing voltage tags on primary cables
34	Missing voltage tags on primary cables
35	Missing voltage tags on primary cables
38	Missing voltage tags on primary cables
42	Missing voltage tags on primary cables
54	Missing voltage tags on primary cables
55	Missing voltage tags on primary cables
60	Missing voltage tags on primary cables
63	Missing voltage tags on primary cables
64	Missing voltage tags on primary cables
65	Missing voltage tags on primary cables
82	Missing voltage tags on primary cables
83	Missing voltage tags on primary cables
84	Missing voltage tags on primary cables
85	Missing voltage tags on primary cables

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 9 includes all non-Ukiah (third-party) findings that ESRB observed during the audit:

Table 9: Observations

Location #	Observations
23	Pole not fully removed by third party
37	Exposed ground wire
47	Exposed ground wire
49	Loose down guy, communications cable in contact with down guy
73	Exposed ground wire
80	Exposed ground wire